Critical Release Notice

Publication number: 297-1771-819
Publication release: Standard 08.02

The content of this customer NTP supports the SN06 (DMS) software release.

Bookmarks used in this NTP highlight the changes between the NA015 baseline and the current release. The bookmarks provided are color-coded to identify release-specific content changes. NTP volumes that do not contain bookmarks indicate that the NA015 baseline remains unchanged and is valid for the current release.

Bookmark Color Legend

Black: Applies to content for the NA015 baseline that is valid through the current release.

Red: Applies to new or modified content for NA017 that is valid through the current release.

Blue: Applies to new or modified content for NA018 (SN05 DMS) that is valid through the current release.

Green: Applies to new or modified content for SN06 (DMS) that is valid through the current release.

Attention!
Adobe® Acrobat® Reader™ 5.0 is required to view bookmarks in color.

Publication History

September 2003

Standard release 08.02 for software release SN06 (DMS). Updates made in the DMS-Spectrum Peripheral Module Commands Reference Manual are shown below.

Modified directory SPMREXRG.

June 2003

Preliminary release 08.01 for software release SN06 (DMS). Updates made in the DMS-Spectrum Peripheral Module Commands Reference Manual are shown below.

Revised directories: SPMCEMDIR, SPMDIR

New directory SPMLDINFO with new commands LISTLOAD, LISTRELEASE, LISTSPMLOAD.

New directory SPMREXRG with new commands REXREG, REXDEREG.

297-1771-819

Digital Switching Systems

DMS-Spectrum Peripheral Module

Commands Reference Manual

DMSSPM15 Standard 06.02 April 2001

NORTEL NETWORKS
How the world shares ideas.

Digital Switching Systems

DMS-Spectrum Peripheral Module

Commands Reference Manual

Publication number: 297-1771-819
Product release: DMSSPM15
Document release: Standard 06.02
Date: April 2001

Publication History

April 2001

Standard 06.02 for SP15 (CSP15)

- Removed SPMATMDIR since the DMS-SPM no longer supports ATM.
- Modified examples in SPMCEMDIR.

February 2001

Standard 06.01 for SP15 (CSP15)

- Feature 59026742 provided Enhanced Man Machine Interface (MMI) Warnings to the Bsy and Prot commands in SPMCEMDIR.

November 2000

Standard 05.01 for SP 14 (CSP13/14)

- SR 10366713 removed instances of Service Test Access (STA) from the NTP.
- SR NV90317 corrected MAP responses in the QueryMod command in the following directories:
  - SPMATMDIR
  - SPMDSPDIR
  - SPMOC3DIR
  - SPMVSPDIR
  - SPMDLCDIR

- Feature 59018431 documented the DS1Plimit command in directory CarrUtil.
- Feature 39005966 added the following Bulk Maintenance commands to the UPGRADE directory, within the SPMDIR directory:
  - BulkAbtk
  - BulkBsy
  - BulkLoad
  - BulkOffl
  - BulkRts
  - BulkSwct
  - Quit

July 2000

Standard 05.01 for SP14 (CSP13/14)

- SR NV00027 created directory SPRICONV, containing the following commands:

  — Bsy, Convert, Hold, Next, Post, Quit, Rts, and Undo

- Feature U59008910 created the following non-menu commands for DS12 message channels configuration:

  — SPMXMSG, Display, Xover, Straighten, Xfollowup, and Quit

- Added the following STM-1 directories with their commands

  — CARRIER directory containing the following commands:

    – Bsy, Detail, Disp, ListAlm, Loop, OffL, Post, Rts, and Tst

  — CarrUtil directory containing the following commands:

    – DumpHist, Help, ListHist, and SetCarr

  — SPMCEMDIR directory containing the Select command

  — SPMTKCNV directory containing the following commands:

    – Convert, CvCarr, Display, and Swap

- Feature 59013912 changed the Bsy command in the SPMOC3DIR and SPMCEMDIR directories. It also changed the Bsy command at the Post level in the Carrier directory.

- Feature 59014137 added warnings as a second layer of checks to the Bsy and Link commands in the ENET Card directory and the ENET Shelf directory.

- SME's comments (email dated March 10, 2000) updated the SPMECMON command in the PROGDIR directory.

February 2000

Standard 03.03 for SP12 (CSP12)

Updated graphics and added editorial comments.

January 2000

Standard 03.02 for SP12

- SME's comments (email dated Jan. 26, 2000) updated the Carrier directory.
- SME's comments (email dated Jan. 5, 2000) updated the SPMECMON command in the PROGDIR directory based on feature 60006714.
- SME's comments (email dated Jan. 5, 2000) updated the Query PM command in the SPMDIR directory.
- SME's comments (email dated Jan. 5, 2000) updated the SPERFORM, SPMACT, and SPUSAGE directories based on feature 59008485.

December 1999

Preliminary 03.01 for SP12 (CSP12)

- Feature AF7583 and AF7810 created directory, SPMDLCDIR, containing the following commands:
  - — Tst, Bsy, RTS, OffL, Loadmod, Next, Select, QueryMod, ListAlm, ListSet, Prot, SPERFORM
- Feature 59007841 updated SPEFORM and the UPGRADE directories.
- Feature 59007841 updated the following commands in the SPMDIR directory:
  - — LISTRES, LISTALM, QUERYPM, SELECT, and TRNSL
- Feature 60006714 updated the SPMECMON command in the PROGDIR directory.
- SR 60093095 added information about ENET restriction in command BSY within the ENET directory.

July 1999

Standard 02.02 for SP11 (CSP11).

Added editorial changes

June 1999

Preliminary 02.01 for SP11 (CSP11).

- Feature AF7378 created the SPMATMDIR directory, containing the following commands:

  — BSY, RTS, OFFL, LOADMOD, NEXT, SELECT, QUERYMOD, LISTALM, PROT

- Feature AF7380 created ATMCONDIR, containing the following commands:

  — POST, QUERY, LISTCON, LOOPBK

- Features AX1215 and AX1402 created SPMACT directory, containing the following commands:

  — START, STOP, STARTLOG, STOPLOG

- Features AX1215 and AX1402 created SPUSAGE directory, containing the following commands:

  — START, STOP, STARTLOG, STOPLOG

- SME comments (email dated 4/16/99) created UPGRADE directory, containing the following commands:

  — AbtkAll, LoadAll_, Quit, SwactAll

- Feature AX1215 and AX1402 updated SPERFORM directory.

- Feature AX1217 and AX1400 updated the PROFDIR directory.

- Feature AF7885 enabled posting the new ATM STS3cp carrier at the CARRIER MAP level.

- Feature AF7895 updated the SPMDIR directory.

October 1998

Standard 01.05 is the initial issue for SPM01 (CSP09).

Contents

About this document

When to use this document

This document describes Spectrum Peripheral Module (SPM) commands used at the MAP terminal and is intended for administration and maintenance personnel.

How this document is organized

The commands in this manual are listed in their respective directories. Chapter 1, “Introduction” contains a brief introduction to the MAP display and levels.

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 software release. For example, the first release of a document is 01.01. In the *next* software 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* software release cycle. For example, the second release of a document in the same software 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 you product is organized, check the release information in *Product Documentation Directory* 297-8991-001.

What precautionary messages mean

The types of precautionary messages used in Nortel Networks documents include attention boxes and danger, warning, and caution messages.

An attention box identifies information that is necessary for the proper performance of a procedure or taks or the correct interpretation of information or data. Danger, warning, and caution messages indicate possible risks.

An example of the precautionary messages follow.

ATTENTION - information needed to perform a task. An example follows:

ATTENTION
These responses are for Spectrum commands only

CAUTION - possibility of service interruption or degradation. An example follows:

CAUTION
Possible service interruption
Before continuing, confirm that you are removing the card from the inactive unit of the peripheral module. Subscriber service will be lost if you remove a card from the active unit.

DANGER - informs the reader of a risk of service interruption, or damage to equipment, or both. An example follows:

DANGER
Possible service interruption
Changing from INSV to ManB can have an impact on service.

How commands, paramters, 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 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.

Responses

Responses correspond to the MAP display and are shown in a different type:

```
FP 3 Busy CTRL 0: Command request has been submitted

FP 3 Busy CTRL 0: Command Passed
```

Related NTPs

Refer to the following documents from more information about SPM:

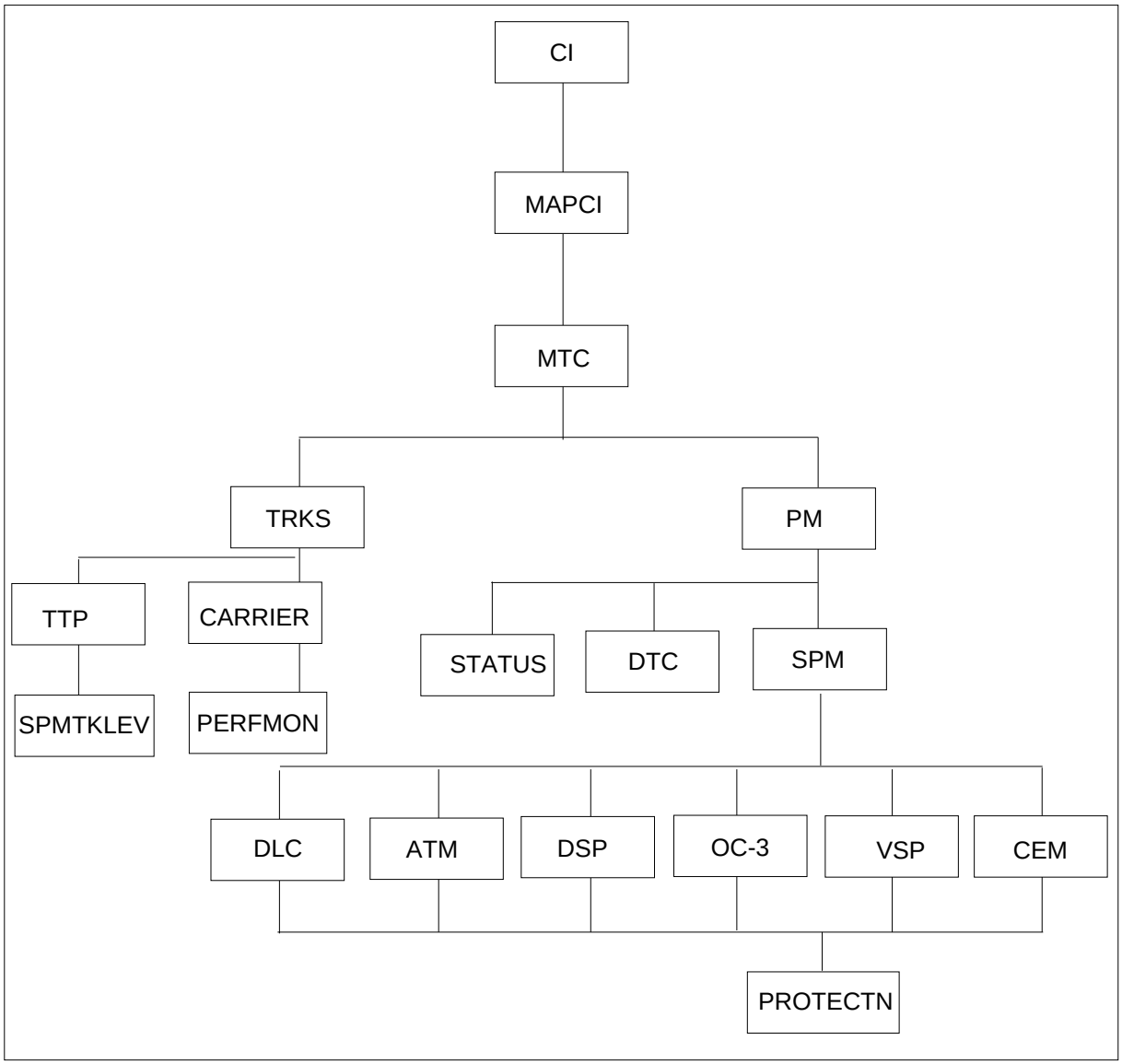
- *DMS-Spectrum Peripheral Module General Description*, 297-1771-130
- *DMS-Spectrum Peripheral Module Primary Rate Interface (PRI) General Description*, 297-1771-132
- *DMS-Spectrum Peripheral Module Feature Description Reference Manual*, 297-1771-330
- *DMS-Spectrum Peripheral Module Hardware Maintenance Reference Manual*, 297-1771-550
- SPM information is also included in the following documents
  - *Alarm Clearing Procedures*
  - *Card Replacement Procedures*
  - *Data Schema tables*
  - *Logs*
  - *Operational Measurements*
  - *Recovery Procedures*
  - *Routine Procedures*
  - *Trouble Locating and Clearing Procedures*

1 Introduction to SPM commands

The Spectrum Peripheral Module (SPM) user interface is accessed through the MAPCI screens. MAP screens and commands help operating company personnel to operate and maintain the SPM at the node level, as well as to maintain the modules (circuit packs) within the SPM. The following paragraphs outline the MAP screen characteristics and the details of MAP layout.

MAP hierarchy

The following block diagram illustrates the different levels of the MAP terminal for SPM.



Accessing the SPM level

Note: Use the following screens and values as examples only. While performing these procedures, the screens you receive may contain different values.

1. At the CI level, enter the following:

   >MAPCI

   The MAPCI screen displays.

2. Enter the following:

   >2 (or Mtc)

   The MTC screen displays.

3. At the MTC screen, enter the following:

   >13 (or PM)

   The PM screen displays.

4. At the PM screen, enter the following:

   >2 SPM #

The SPM screen displays.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   SysB   1IOCOS  5CdPr   2SysB  1   Rs           1 CC   1Crit
   M        M      M       *C*     *C*   *C*             *C*    *C*



SPM                                 SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                PM              2       0       4       0      10       0
 2 Post_               SPM             0       0       3       0       1       0
 3 ListSet
 4 ListRes          SPM    1  OffL  Class: DMSCP
 5 Trnsl
 6                  Shlf0 SL A Stat  Shlf0 SL  A Stat Shlf1 SL A Stat  Shlf1  SL A Stat
 7                  -----  1 - ----  CEM 1  8  I OffL  VSP 0 1 I OffL   DSP 1  8 I OffL
 8                  -----  2 - ----  OC3 0  9  I OffL  VSP 1 2 I OffL   --- -  9 - ----
 9                  -----  3 - ----  OC3 1 10  I OffL  --- - 3 - ----   --- - 10 - ----
10                  -----  4 - ----  --- - 11  - ----  --- - 4 - ----   --- - 11 - ----
11 Disp_            -----  5 - ----  --- - 12  - ----  --- - 5 - ----   --- - 12 - ----
12 Next             -----  6 - ----  --- - 13  - ----  --- - 6 - ----   --- - 13 - ----
13 Select_          CEM 0  7 A OffL  --- - 14  - ----  DSP 0 7 I OffL   --- - 14 - ----
14 QueryPM
15 ListAlm
16 PSLink
17 SPERFORM
18 Upgrade_

   14:12 >
```

SPM MAP characteristics

The following describes some of the specific characteristics of the SPM MAP user interface.

- When a MAP level command is invoked with “nowait" option, the terminal frees up after all command parameters are parsed and any prompts and/or warnings have been displayed. This allows subsequent commands to be entered while the first command is still executing.
- As each command is entered, a request for maintenance is sent to the SPM maintenance system. All command responses, including confirmation, progress marks, and command results are returned to the SPM user interface as messages. In this way, SPM user interface (although not necessarily SPM maintenance) supports the parallel processing of commands.
- Because of the potential for parallel command processing, there is a possibility that command responses could be received out of sequence or intermixed. Although this cannot be prevented, command responses should be particularly explicit to lessen the chance of confusion. Therefore, all SPM MAP responses have been labelled to identify the node and command to which they refer.
- The bulk of SPM maintenance intelligence resides in the SPM node. This decentralization of remote node maintenance reduces the maintenance load on the DMS-Core, which is the central processing node in the DMS-SuperNode. Maintenance for most SPM MAP commands is executed in the SPM itself.

Menu commands

Menu commands are those commands listed on the MAP display at each level. Access menu commands by typing the command itself or the number to the left of the command.

Non-menu commands

Non-menu commands (sometimes called hidden commands) are commands not displayed on the MAP display. Although they are not listed in the menu command display area, these commands are available from the current level.

Non-menu commands can include both of the following:

- “global" commands—available from any level (also called CI commands because they are available from the CI level)
- level-specific commands—available only from the current menu level (directory)

  — LISTST

  To find out the commands (both menu and non-menu) you can access at the current level, enter at the MAP display:

  ```
  >LISTST
  ```

  After you enter the previous command, the MAP lists all commands available at the current level. This list will include commands that perform tasks, commands that access other levels (directories), commands that appear on the menu, and commands that do not appear on the menu.

  — PRINT

  To list all the commands available within a directory, enter “PRINT", a space, and the name of the command directory, as shown by the following:

  ```
  >PRINT directory
  ```

  The MAP displays a list of all commands available in the directory you specified.

  — HELP

  Some directories have a HELP command available. Enter this command at the prompt, as shown in the following example, in the directory in which you want help. The MAP displays helpful information about the directory.

  ```
  >HELP
  ```

Command-specific information

If you want to know information about a specific command (such as whether it accesses another directory or what task the command performs), enter “Q", a space, and the command, as shown by the following:

```
>Q  command
```

Moving between command levels

At the MAP, you can move between the levels or directories with the following commands.

If you wish to go to the next command level, type the command directory at the prompt.

- To move from the CI level to the MAPCI level, type

  >MAPCI

- To move to the previous level, enter

  >QUIT

- To move directly to the CI level, enter

  >QUIT ALL

Commands parameters

Commands that perform a task often require one or more parameters. Parameters indicate the limits within which the command should perform. When you enter a command and its parameters, separate each parameter with a blank space.

The results of some commands are altered by the absence or presence of individual or groups of optional parameters. These cases are fully described in this manual.

Required parameters

Required parameters are necessary for the command to function properly. The MAPCI continues to prompt you for required parameters until you enter them correctly.

Optional parameters

Optional parameters are not required for the command to work. The MAPCI does not prompt you for optional parameters unless they are optional as a group and you have entered at least one optional parameter.

2 CARRIER directory

This chapter describes the syntax, purpose, and semantics of the CARRIER commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

To access the CARRIER directory

```
>MAPCI;MTC;TRKS;CARRIER
```

To return to CI

```
>QUIT ALL
```

CARRIER screen

The following is the layout of the CARRIER screen. The screen shows all the available commands at the CARRIER level. With SP11, a new carrier type, STS3cp, can be posted at the MAP. This is a new screen and holds only the STS3cp information. Since the STS3cp carrier does not have any carriers beneath it, the MAP screen displays carriers up to STS3cp.

A carrier can be in any one of the following states:

- unequipped (Uneq)
- offline (OffL)
- manual busy (ManB)
- system busy (SysB)
- C-side busy (CBsy)
- P-side busy (PBsy)
- in service (InSv)

A carrier on an SPM can be in only one of the following states. The PBsy and Uneq states are not used for SPM carriers for SPM01.

- OffL
- ManB
- SysB

- CBsy
- Insv

POST level

The POST command allows the user to display carriers based on a condition or a peripheral type. A condition can be a class, a PCM type, a state, an alarm, or a limit type.

The PCM types for SPM are OC3 Section, STS3 Line, STS1 Path, DS3 Path, VT15 Path, and DS1 Path. DS1 Path denotes an SPM DS1 subcarrier.

Because each SPM carrier can have a unique 38-character logical name, posting can be done by a logical name.

There are two formats for the SPM CARRIER POST screen, one for physical carriers (OC3 Section and STS3 Line), and one for logical carriers (STS1 Path, VT15 Path, DS3 Path, DS1 Path).

Note: With SP11, the SPM CARRIER POST screen also shows the new carrier type, STS3cp.

The following example is for a physical carrier.

```
  CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
   .       .      .       .       1 SPM    .       .      33 CC     .       .
                                    M                     *C*


POST                 CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
 0 Quit              TRUNKS    1    0   7     7     0    0     0     11    0     6
 2 Post_             REMOTE    1    0   5     0     0    0     0      4   32    29
 3                   TIMING    1    0   2     0     0    0     0      2    0     0
 4                   PROTLN    0    0   0     0     0    0     0      0    0     2
 5 Loop_             HSCARR    1    0   0     0     0    0     0      0    0  1265
 6 TST_              OC3S
 7 Bsy_              N   CLASS  SITE SPM OC3RM  OC3S  CKT STATE   TR  MA
 8 RTS               0   HSCARR  HOST   1    0     0   1  OFFL    --  --
 9 OffL              1   HSCARR  HOST   1    1     1   6  OFFL    --  --
10                   POSTED BY CONDITION :  OC3S
11 Disp_             CARRIER:
12 Next              POST:
13
14 Detail_
15 ListAlm_
16 Prot_
17 Perfmon_
18

 Operator
 Time  14:12
 >
```

The following table describes the condition of the carriers.

Table 2-1

Carrier condition	Description
TR	T column indicates whether or not the posted carrier is transmitting the signal. R column indicates whether or not the posted carrier is receiving the signal. *Note:* Only the working carrier is able to receive the signal.
MA	M column indicates whether any threshold crossing alarms (TCA) have set for the posted carrier. A column indicates whether any alarms have been set for the posted carrier.
Note: TR conditions display is based on the state of the displayed STS3L, or if an OC3S is displayed, on the state of the STS3L displayed on the OC3S. • " .." indicates that the STS3L is Active transmitting and receiving. • " .S " indicates that the STS3L is transmitting and is on receiving Standby. • " -- " indicates that the STS3L is MANB/OFFL. • " ** " indicates that the STS3L is SYSB or CBSY.	

Beginning SP12, the following columns are deleted from the POST level:

- STS3L column is deleted from the OC3S POST display.
- DS3P, VT15P, and DS1P columns are deleted from the STS1P POST display.

- VT15P and DS1P columns are deleted from the DS3P POST display.
- DS3P and DS1P columns are deleted from the VT15P POST display.

The following example is for a logical carrier.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  .       .      .       .       1 SPM    .       .      33 CC     .       .
                                   M                     *C*


POST                CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
 0 Quit             TRUNKS    1    0   7     7     0    0     0     11    0     6
 2 Post_            REMOTE    1    0   5     0     0    0     0      4   32    29
 3                  TIMING    1    0   2     0     0    0     0      2    0     0
 4                  PROTLN    0    0   0     0     0    0     0      0    0     2
 5 Loop_            HSCARR    1    0   0     0     0    0     0      0    0  1265
 6 TST_             VT15P
 7 Bsy_             N   CLASS  SITE SPM STS1P VT15P CKT STATE MA
 8 RTS              0   HSCARR  HOST  0   2      1   9  INSV  ..
 9 OffL             1   HSCARR  HOST  0   2      2  10  INSV  m.
10                  POSTED BY CONDITION :  VT15P
11 Disp_            CARRIER:
12 Next             POST:
13
14 Detail_
15 ListAlm_
16 Prot_
17 Perfmon_
18

 Operator
 Time  14:12
 >
```

To execute the POST command

To execute the POST command, enter one of the following:

- the command name and a condition
- the command name, the word NAME, and the name of the desired SPM carrier
- the command name and a peripheral type

This is an example of entering the command:

```
>MAPCI;MTC;TRKS;CARRIER;POST SPM 0
```

Commands at the POST level

The CARRIER commands at the POST level are as follows:

- Bsy
- Detail

- Disp
- ListAlm
- Loop
- Next
- OffL
- PerfMon
- Post
- Quit
- RTS
- Tst

Note: When a user executes a BSY command on an STS3cp carrier, the following warning and prompt displays on the MAP screen:

```
All trunks not busy

Do you want to busy this carrier ?

Please confirm (“YES", “Y", “NO", or “N"):
```

DISPLAY level

The DISPLAY screen displays all carriers in a specified state.

The following figure shows the CARRIER screen at the DISPLAY level. The screen shows all available commands at the DISPLAY level.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt  ManB  KT   B.  2CSLk   1 SPM.    .       .      1 CC      .      .
   M       M                   *C*                    *C
DISPLAY
 0 Quit
 2 Post_
 3
 4
 5
 6
 7
 8
 9
10
11 Disp_
12 Next
13
14
15
16
17
18
 CMAP0
Time  14:12
>
CLASS    ML   OS ALRM  SYSB  MANB UNEQ OFFL  CBSY PBSY  INSV
TRUNKS    0    0    0     0     0    0   12     0    0     8
HSCARR    0    0    0     0     0    0    0     0    0     5



PM    NO CKT     PM    NO CKT     PM    NO CKT     PM    NO CKT
SPM    0   1     SPM    0   2     SPM    0   3     SPM    0 104
SPM    0   5     DTC    0   0     DTC    0   1     DTC    0   2
DTC    0   3     DTC    0   8     DTC    0  12     DTC    0  14
DTC    0  16

DISPLAYED BY CONDITION : INSV
DISP:
```

To execute the DISPLAY command

When the DISPLAY command is executed, the resulting MAPCI screen can display both XPM and SPM carriers at the same time. It uses the following syntax:

>DISP condition

The menu items change to those that are specific to the DISPLAY command. Also, the status display updates to display the carriers that meet the specified condition

This is an example of entering the command:

>MAPCI;MTC;TRKS;CARRIER;DISP OFFL

PERFMON screen

The PERMON screen is specific to SONET carrier performance monitoring. It is a tool used to view performance monitoring values.

The following figure shows the layout of the PERFMON screen. The screen shows all the available commands at the PERFMON level.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  .       .      .       .       1 SPM    .       .      33 CC     .       .
                                   M                     *C*

 PERFMON
 0 Quit
 2
 3
 4
 5
 6 SilMl
 7
 8
 9 MeterPP
10
11
12
13
14 PPQuery
15
16
17
18

Userid
Time  14:24
>
CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
TRUNKS    1    0   7     7     0    0     0     11    0     6
REMOTE    1    0   5     0     0    0     0      4   32    29
TIMING    1    0   2     0     0    0     0      2    0     0
PROTLN    0    0   0     0     0    0     0      0    0     2
HSCARR    1    0   0     0     0    0     0      0    0  1265

CKT 0    : SPM 0  STS1P 1
Interval:  13:45          Status:
Parm    Count  M D     Parm    Count  M D     Parm    Count  M D
SEFS-N     10          CV-N       35  *       ES-N        5
SES-N       9          LBC-N       0          OPT-N       7
OPR-N       2
```

To execute the PERFMON command

To execute the PERFMON command, enter the command from the POST level, then enter the command name and a carrier display number.

This is an example of entering the command:

```
>MAPCI;MTC;TRKS;CARRIER;POST SPM 0;PERFMON 0
```

Commands at the PERFMON level

The commands available at the PERFMON level are as follows:

- Clear

  The Clear command resets the 15-minute Performance parameter or 24-hour Performance parameter counts to zero.

  Note: The Clear command is a hidden command; therefore, it does not show up on the PERFMON menu.

- MeterPP

  The MeterPP command allows the user to record the nominal optical power received (OPR) value to be used in calculating the OPR value (valid for OC3 Section carriers only).

- PPQuery

The PPQuery command displays the current 24-hour Performance parameter counts, the 15-minute Performance parameter, and the 24-hour Performance parameter thresholds.

- Quit

  The Quit command exits the current or multiple CI increments.

- SilMl

  The SilMl command temporarily suppresses Performance parameter alarms on a carrier.

Additional information

Beginning with SP11, the CarrUtil commands are not supported on Asynchronous Transfer Mode (ATM) carriers. If a user executes the CarrUtil commands on the ATM carriers, the following message displays on the MAP screen:

```
carrutil is not supported for ATM carriers
```

Bsy
POST level

Purpose

The Bsy command changes the state of the specified carrier(s) to manual busy (MANB).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is the command syntax.

```
BSY: BSY THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]

       [<ALL> {ALL}]
```

A number of rules govern when it is valid to busy (Bsy) an SPM carrier. For example, one cannot Bsy an SPM carrier whose parent carrier is offline. An SPM carrier that has one or more subcarriers in an in-service state cannot be busied.

General guidelines are as follows:

- When carriers are provisioned, they are put in an offline (OffL) state. When bringing newly provisioned carriers into service for the first time, the carriers must be busied then returned to service “from the top down." That is, the carriers at the top of the carrier hierarchy, the OC3 Sections, must be busied first, followed by the STS3 Lines, the STS1 Paths, and so on.
- Once the carriers have been put into service and the user wishes to busy one or more of them, the carriers must be busied “from the bottom up." That is, the carriers at the bottom of the hierarchy must be busied first. Typically, DS1 Paths and byte-sync VT15 Paths are the “lowest" carriers in the hierarchy.

Parameters

The following table describes the parameters.

Table 2-2

Parameter	Value	Description
carrier	0 to 4	Carrier display number
all	all	All carriers in Post set

MAP responses

The following are responses to this command.

Table 2-3 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The Bsy command completed successfully.
`No Action Taken: SPM x CKT y: Software error.`	The Bsy command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	A Bsy request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A Bsy request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Bsy cannot be executed at this time.
`No Action Taken: SPM x CKT y: Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. Bsy cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Bsy cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is MANB.`	The carrier is already in the manual busy state.

Table 2-3 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y: Carrier has one or more INSV, CBSY or SYSB subcarriers.`	The carrier has one or more subcarriers with in-service states. This carrier cannot be busied.
`No Action Taken: SPM x CKT y: Parent carrier OFFL.`	The parent of this carrier is offline. This carrier cannot be busied.
`No Action Taken: SPM x CKT y: Carrier is looped.`	The carrier is in a loopback state. Clear the loopback before busying the carrier.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Bsy command was executed on a carrier that is listed in the Post set, but has since been deleted. Bsy cannot be executed for this carrier.

Example

None

Additional information

When a user executes a BSY command on an STS3cp carrier, the following warning and prompt displays on the MAP screen:

```
All trunks not busy

Do you want to busy this carrier ?

Please confirm (“YES", “Y", “NO", or “N"):
```

When a user executes a BSY command on an active STS-3 carrier and the SPM is either the active or standby timing reference, the following warning and prompt displays on the MAP screen. The message displays whether or not the inactive carrier is busy.

```
WARNING:  This carrier is an office timing reference.

Do you want to proceed?

Please confirm (“YES", “Y", “NO", or “N"):
```

Clear
PERFMON level

Purpose

The Clear command resets the 15-minute and/or day Performance Parameter counts to zero. Therefore, the counts reported by the PM Archival system for the 15-minute or day period in which Clear was executed are the counts accumulated after the Clear command executes. Any corresponding threshold crossing alarms are cleared as well. The user is prompted to confirm that the system proceeds with the action of resetting the specified performance parameters and threshold crossing alarms. This command is normally used only after installation or troubleshooting to clear counts and alarms collected during maintenance actions.

The Clear command is available only in the SPM Carrier PERFMON MAPCI screen, but is not listed on the menu due to its possible negative impact.

Cleared performance parameter registers report only those counts accumulated after the count was cleared. Clearing registers sets the appropriate Invalid Data Flags (IDF).

Command type

Hidden

Command target

SuperNode

Command availability

Res

Command syntax

The following is the command syntax.

```
Clear -> Reset the 15 min and/or 24 hr counts to zero

Parms:   <Direction/All>   (ALL,

                           {NE   <Counts>  {MIN,

                                 DAY}

                                 <Current/Previous> {CURR,

                                    PREV}

                           FE <Counts> {MIN,
```

```
                                        DAY}

                                <Current/Previous> {CURR,

                                        PREV}
```

Parameters

The following table describes the parameters.

Table 2-4

Parameters	Value	Description
direction/all	NE	Near end
	FE	Far end
	ALL	All counters in both directions. With the ALL parameter, no other parameters are required. All counters in both directions will be reset.
counts		Performance parameter counts
	min	15-min
	day	Day
current/previous		Current counts, previous counts
	curr	Current 15-minute counts
		Current 24-hour counts
	prev	Previous 15-minute counts
		Previous 24-hour counts

MAP responses

The following are responses to this command.

Table 2-5

Response	Explanation and action
`Ok.`	The CLEAR command completed successfully.

`Warning the following types of PPs will be cleared`
`Near end Minute Current`
`Do you wish to proceed (Yes, Y, No, N)`
	This message warns the user that values will be reset.

`No Action Taken: SPM x CKT y: Software error.`	The CLEAR command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	A CLEAR request for the specified carrier was submitted, but it is not clear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A CLEAR request for the specified carrier was submitted, but a software error has occurred. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module; therefore, no action is taken.
`No Action Taken: SPM x CKT y: Messaging to PM Unavailable.`	There is no messaging to the SPM.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The CLEAR command was executed on the posted carrier, but has since been deleted. CLEAR cannot be executed for this carrier.
`No Action Taken: SPM x CKT y: No mailbox allocated.`	The CLEAR command was not submitted because no mailbox exists to receive the response.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Clear cannot be executed at this time.

`Warning: All PPs will be cleared.`
`Do you wish to proceed?`
`Please confirm ("YES", "Y", "NO", or "NO"):`
	This message warns the user that all values will be reset.

Example

The following is an example of this command.

```
>CLEAR NE DAY CURR
```

Detail
POST level

Purpose

The Detail command displays additional detail about one of the posted carriers.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
DETAIL: SHOW FURTHER DETAILS FOR A SPECIFIED POSTED CARRIER

Parms: <CARRIER> {0 TO 4}

       [<TRKS OPT> {TRKS}]
```

Parameters

The following table describes the parameters.

Table 2-6

Parameter	Value	Description
carrier	0 to 4	Carrier display number
trks opt	trks	Detail outputs the information about trunks for the specified carrier

MAP responses

The following are responses to this command.

Table 2-7 (Sheet 1 of 2)

Response	Explanation and action
SPM 0 CKT 1 NAME: SPM_0OC3S_1	The data format shown is a representation of the Detail command performed on a posted carrier without the TRKS option. The only thing that is output is the carrier name because there is no space for it on the carrier MAP terminal.
SPM Ckt Trks CLLI Dir Tot SB MB Ext %OS 0 4 1 SPMIC 2WY 0 0 0 0 0	The user exercises the TRKS option for a carrier that has trunks. The SPM and Ckt are the numbers that correspond to the selected carrier. The other fields are • TRKS — number of datafilled trunks in the trunk group • CLLI — name of a trunk group datafilled on this carrier • DIR — direction of the associated trunk • Tot — total number of trunks in a non-INB state on this carrier • SB — number of system busy trunks in this trunk group on this carrier • MB — number of manual busy trunks in this trunk group on this carrier • Ext — number of Ext busy trunks in this trunk group on this carrier • %OS — percentage number of non-INB trunks in this trunk group on this carrier that are out-of-service All trunk groups datafilled on the carrier are listed.

Table 2-7 (Sheet 2 of 2)

Response	Explanation and action
Carrier not provisioned	The Detail command was executed on a carrier that is listed in the Post set, but has since been deleted. The Detail command cannot be executed for this carrier.
Failed to get carrier info	The system cannot get carrier data for the specified carrier. The Detail command cannot be executed for this carrier.

Example

None

Disp
DISPLAY and POST levels

Purpose

The Disp command allows the user to display all the carriers that correspond to a given condition. A condition can be a state, an alarm, or a limit.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

To execute the Disp command, enter the command name and a condition. The command syntax is as follows:

```
DISPLAY ALL THE CARRIERS IN A GIVEN CONDITION.

Parms: <CONDITION>  {CBSY,
                     PBSY,
                     INSV,
                     MANB,
                     SYSB,
                     UNEQ,
                     OFFL,
                     ALARM,
                     OS,
                     ML}
```

Parameters

The following table describes the parameters.

Table 2-8

Parameter	Value	Description
condition	cbsy	C-side busy (state); XPM and SPM
	pbsy	P-side busy (state); XPM
	insv	In-service (state); XPM and SPM
	manb	Manual busy (state); XPM and SPM
	sysb	System busy (state); XPM and SPM
	uneq	Unequipped (state); XPM
	offl	off-line (state); XPM and SPM
	alarm	alarm (alarm); XPM and SPM
	os	out-of-service limit (limit); XPM SYSB-P carriers; SPM
	ml	Maintenance limit (limit); XPM Performance parameter alarms; SPM

MAP responses

None

ListAlm
POST level

Purpose

The ListAlm command causes detailed alarm information to be displayed. It is available only for SPM carriers.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LISTALM: SHOW FAULT ALARMS FOR A SPECIFIED POSTED CARRIER

Parms: <CARRIER> {0 TO 4}
```

Parameters

The following table describes the parameters.

Table 2-9

Parameter	Value	Description
carrier	0 to 4	Carrier display number

MAP responses

The following are responses to this command.

Table 2-10

Response	Explanation and action
ALARM SEVERITY REPORTABILITY LOP Major RPT AIS Minor RPT Resultant/Masked RFI No_Alarm NRPT	A table of steady state alarms showing their severities and reportabilities displays after entering LISTALM N, where N is the carrier display number. The RPT/NRPT refers to provisioning datafill in table MNHSCARR. The Resultant/Masked text refers to masking a failure by an SPM because the failure is the result of another failure.
No carrier at specified position	The user entered a display number for which there was no carrier present.
No Steady State Alarms present	There are no Failure/BER alarms present.
Action unconfirmed: SPM x CKT y.	There was no reply from the SPM. Note that x = SPM number and y = carrier number.
Action unconfirmed: SPM x CKT y: Software Error.	The action may not have been taken due to a software error. Record the response and capture the accompanying swerr.
No Action Taken: SPM x CKT y: Messaging to PM unavailable.	There is no messaging to the SPM.
No Action Taken: SPM x CKT y: Invalid carrier state.	The carrier is MANB, OFFL, or SYSB-P, so the carrier's failures have been cleared.
No Action Taken: SPM x CKT y: SYSB-P, Hardware Defect present.	The carrier is SYSB-P. The carrier's failures have been cleared because the carrier has failed hardware tests.
No Action Taken: SPM x CKT y: RM Not Available.	It is not possible to communicate with the resource module; therefore, failure alarm data cannot be retrieved.
No Action Taken: SPM x CKT y: Software Error.	The ListAlm command was not executed on the specified carrier because of a software error. Record the response and capture the accompanying swerr.
No Action Taken: SPM x CKT y: Mtce In Progress.	Maintenance action is in progress on this carrier. ListAlm cannot be executed at this time.
No Action Taken: SPM x CKT y: Carrier not provisioned.	The ListAlm command was executed on a carrier that is listed in the Post set, but has since been deleted. ListAlm cannot be executed for this carrier.

Example

None

Loop
POST level

Purpose

The Loop command provides loopback testing for a specified carrier and puts the specified carrier in a given loopback state.

Command type

Menu

Command target

SuperNode

Command availability

Res

> **ATTENTION**
> The SPM supports the Loop command on the OC3S and on DS3P and DS1Ps underneath the DS3s. However, it does not support the DS1P carriers subtending the AsyncVT carriers.

Command syntax

The following is an example of command syntax.

```
Loop: Loop the specified carrier

Loop Options

L - Local

R - Remote

C - Clear

Parms: <Carrier> {0 TO 4}

       <Loop Options>   {L,

                         R,

                         C}
```

Parameters

The following table describes the parameters.

Table 2-11

Parameter	Value	Description
carrier	0 to 4	Carrier display number
loop options	L	Local loopback
	R	Remote loopback
	C	Clear loopback

MAP responses

The following are responses to this command.

Table 2-12 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The Loop command successfully completed.
`No Action Taken: SPM x CKT y: Software error.`	The Loop command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	A Loop request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A Loop request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Loop cannot be executed at this time.
`No Action Taken: SPM x CKT y: Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. Loop cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Loop cannot be executed at this time.

Table 2-12 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y: Carrier is not MANB.`	The carrier is not in manual busy state, so it cannot be put in loopback.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module.
`No Action Taken: SPM x CKT y:` `Carrier is looped.`	The carrier is already in a loopback state.
`No Action Taken: SPM x CKT y:` `Carrier type does not support Loopback.`	The command was issued on a carrier type that does not support loopback.
`No Action Taken: SPM x CKT y: Carrier is not looped.`	The carrier is not in any loopback state; therefore, no action is taken for the request to clear a loopback.
`No Action Taken: SPM x CKT y: A Subcarrier is looped.`	There exists a subcarrier that is already in a loopback state; therefore, no action is taken for the request to set a loopback.
`No Action Taken: SPM x CKT y: Parent Carrier is looped.`	The parent carrier is already in a loopback state; therefore, no action is taken for the request to set a loopback.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Loop command was executed on a carrier that is listed in the Post set, but has since been deleted. Therefore, Loop cannot be executed for this carrier.
`No Action Taken: SPM x CKT y: Messaging to PM unavailable.`	There is no messaging to the SPM.

Example

None

MeterPP
PERFMON level

Purpose

The MeterPP command saves the current OPR level into persistent memory in the SPM as the nominal OPR level to use in reporting the OPR level to the user.

This command is valid only for OC3 Sections.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
MeterPP -> Utility commands for Metered Performance Parameters.

RecordOpr0,

      Record the current level as the nominal value for OPR.

Parms: <MeterPP> {RecordOpr0}
```

Parameters

The following table describes the parameters.

Table 2-13

Parameter	Value	Description
MeterPP	RecordOpr0	Records the current OPR level as OPR0

MAP responses

The following are responses to this command.

Table 2-14

Response	Explanation and action
`Ok.`	The current OPR level successfully recorded.
`No action taken; RecordOpr0 only valid for OC3 Sections.`	An attempt was made to RecordOpr0 on a carrier other than an OC3 Section.
`No Action Taken: SPM x CKT y: Carrier must be MANB to recordOpr0.`	The MeterPP RecordOpr0 command was not executed on the specified carrier (x = SPM number and y = carrier number) because the carrier is not in the ManB state.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The MeterPP command was executed on the posted carrier and has since been deleted. MeterPP cannot be executed for this carrier.
`Use MeterPP command to Record Opr0.`	The carrier is in an OC3 Section.
`No Action Taken: SPM x CKT y: Software Error.`	The MeterPP command was not executed on the specified carrier because of a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress`	Maintenance action is in progress on this carrier. MeterPP cannot be executed at this time.
`No Action Taken: SPM x CKT y: Messaging to PM unavailable.`	There is no messaging to the SPM.

Example

None

Next
DISPLAY and POST levels

Purpose

The Next command displays the next members of the posted set. If there are more carriers in the Post set, the system goes to the next screen of carriers in the Post set.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is the command syntax.

```
NEXT
```

Parameters

None

MAP response

None

Example

None

OffL
POST level

Purpose

The OffL command changes the state of the specified carrier(s) to offline.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
OFFL: OFFLINE THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]

       [<ALL> {ALL}]
```

SPM carriers must be offlined “from the bottom up." That is, the carriers at the bottom of the hierarchy must be offlined first. Typically, DS1 Paths and byte-sync VT15 Paths will be the “lowest" carriers in the hierarchy.

Parameters

The following table describes the parameters.

Table 2-15

Parameter	Value	Description
carrier	0 to 4	Carrier display number
all	all	All carriers in Post set

MAP responses

The following are responses to this command.

Table 2-16 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The OffL command successfully completed.
`No Action Taken: SPM x CKT y:` `Software error.`	The OffL command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	An OffL request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y.` `Software error.`	An OffL request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y:` `Mtce In Progress.`	Maintenance action is in progress on this carrier. OffL cannot be executed at this time.
`No Action Taken: SPM x CKT y:` `Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. OffL cannot be executed at this time.
`No Action Taken: SPM x CKT y:` `Carrier is OFFL.`	The carrier is already in the offline state.
`No Action Taken: SPM x CKT y:` `Carrier has one or more MANB subcarriers.`	The carrier has one or more MANB subcarriers. OffL cannot be executed.
`No Action Taken: SPM x CKT y:` `Carrier is looped.`	The carrier is in a loopback state. Clear the loopback before executing OffL.
`No Action Taken: SPM x CKT y:` `Carrier is INSV.`	The carrier is INSV. OffL cannot be executed. Manual busy the carrier before executing OffL.
`No Action Taken: SPM x CKT y:` `Carrier is CBSY.`	The carrier is CBSY. OffL cannot be executed. Manual busy the carrier before executing OffL.
`No Action Taken: SPM x CKT y:` `Carrier is SYSB.`	The carrier is SYSB. OffL cannot be executed. Manual busy the carrier before executing OffL.

Table 2-16 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y:` `Carrier is INSV, CBSY or SYSB.`	The carrier is INSV, CBSY, or SYSB. OffL cannot be executed. Manual busy the carrier before executing OffL.
`Carrier state mismatch: SPM x CKT y:` `Software error.`	The carrier state was updated in SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y:` `Carrier not provisioned.`	The OffL command was executed on a carrier that is listed in the Post set, but has since been deleted. OffL cannot be executed for this carrier.

Example

None

PerfMon
POST level

Purpose

The PerfMon command causes a performance monitoring screen to be displayed. This screen displays the 15-minute count registers and the 15-minute and day threshold crossings for Section, Line, or Path Performance parameters.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
PERFMON -> Display performance parameters data for the selected
carrier.

Parms: <CARRIER> {0 TO 4}
```

Parameters

The following table describes the parameters.

Table 2-17

Parameter	Value	Description
carrier	0 to 4	Carrier display number

MAP responses

The following are responses to this command.

Table 2-18 (Sheet 1 of 2)

Response	Explanation and action
`The PerfMon screen is displayed.`	The user executed PerfMon x, where x = carrier display number.
`Use MeterPP command to Record Opr0.`	The PerfMon level was entered for an OC3 Section that needs to have Opr0 recorded.
`Carrier not provisioned`	The PerfMon command was executed on a carrier that is listed in the Post set, but has since been deleted. Therefore, the PerfMon level cannot be entered for this carrier.
`Failed to get carrier info`	The system cannot get carrier data for the specified carrier. The PerfMon level cannot be entered for this carrier.
`Unable to start monitoring process.`	Unable to start the monitoring process that updates the PerfMon screen. The screen cannot be updated. The commands Clear, MeterPP, PPQuery, and SilMl should still function.
`*WARNING* Too many PerfMon MAPs monitoring carriers. Maximum 8.`	Only 8 MAP screens are allowed to monitor carriers at any given time.
`This PerfMon MAP display will NOT be updated every minute. PerfMon Level commands are still valid at this MAP, but update of PerfMon MAP displays may be negatively affected.`	Wait until one of the other PerfMon MAPs quits, then enter the PerfMon level again. The commands Clear, MeterPP, PPQuery, and SilMl still function.
`Unable to allocate a mailbox for commands.`	Command PPQuery does not work.
`Software error`	A request for Performance Monitoring data was not executed on the specified carrier because of a software error. Record the response and capture the accompanying swerr.
`Mtce In Progress`	Maintenance action is in progress on this carrier. A request for Performance Monitoring data cannot be executed at this time.
`Msg to PM unavailable`	There is no messaging to the SPM.

Table 2-18 (Sheet 2 of 2)

Response	Explanation and action
`RM not available`	It is not possible to communicate with the resource module; therefore, a request for Performance Monitoring data cannot be executed at this time.
`No reply`	A request for Performance Monitoring data was submitted, but it is unclear whether the request was completed.

Example

None

Post
DISPLAY and POST Levels

Purpose

The Post command displays carriers based on a condition or a peripheral type. A condition can be a class, a PCM type, a state, an alarm, or a limit type.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Res

Command syntax

To execute the Post command, enter the following

- Post and a condition or the word NAME and the name of the desired SPM carrier

  or

- Post and a peripheral type

Note 1: There are two layout formats for the SPM Carrier Post screen, one for physical carriers (OC3 Section and STS3 Line) and one for logical carriers (STS1 Path, VT15 Path, DS3 Path, and DS1 Path).

Note 2: When posting carriers by condition, there may be both XPM carriers and SPM carriers that meet the specified condition. In response to the “post condition" command, the data displayed on a MAPCI screen will pertain either to XPM or SPM carriers. Data for both XPM carriers and SPM carriers will not be shown on the screen at the same time.

```
POST CARRIER -> SELECT AND DISPLAY A CARRIER.

Parms: [<CONDITION> {TRUNKS,

                     REMOTE,

                     TIMING,

                     PROTLINE,

                     DS0LNK,
```

```
                        HSCARR,
                        DS1,
                        D30,
                        M20,
                        TTC,
                        VT1H,
                        NDS0,
                        OC3S,
                        STS3L,
                        STS1P,
                        DS3P,
                        VT15P
                        DS1P,
                        CBSY,
                        PBSY,
                        INSV,
                        MANB,
                        SYSB,
                        UNEQ,
                        OFFL
                        ALARM [HS OPT {HS}],
                        OS,
                        ML,
                        EC}]
[<CARNAME> {NAME <THE_NAME> STRING}]
[<PM>... {DCM <NO> {0 TO 511}
                    [<CARRIER> {0 TO 4}]
```

```
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          DCA <NO> {0 TO 511}
                [<CARRIER> {0 TO 3}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          DCT <NO> {0 TO 511}
                [<CARRIER> {0 TO 3}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          DTC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          LTC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          LGC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          IDTC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          SMR <NO> {0 TO 255}
```

```
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          SMS <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          SMU <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          ILGC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          ILTC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          SMSR <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
          ADTC <NO> {0 TO 255}
                [<CARRIER> {0 TO 15}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
```

```
                    ALGC <NO> {0 TO 255}
                              [<CARRIER> {0 TO 19}]
                              [<TRKS OPT> {TRKS}]
                              [<REM END> {REM}],
                    PDTC <NO> {0 TO 255}
                              [<CARRIER> {0 TO 19}]
                              [<TRKS OPT> {TRKS}]
                              [<REM END> {REM}]
                              [<PCM OPT> {D30,
                                          M20,
                                          TTC,
                                          NDS0}],
                    TDTC <NO> {0 TO 511}
                              [<CARRIER> {0 TO 15}]
                              [<TRKS OPT> {TRKS}]
                              [<REM END> {REM}],
                    TLGC <NO> {0 TO 511}
                              [<CARRIER> {0 TO 15}]
                              [<TRKS OPT> {TRKS}]
                              [<REM END> {REM}],
                    TLTC <NO> {0 TO 511}
                              [<CARRIER> {0 TO 15}]
                              [<TRKS OPT> {TRKS}]
                              [<REM END> {REM}],
                    PLGC <NO> {0 TO 255}
                              [<CARRIER> {0 TO 19}]
                              [<TRKS OPT> {TRKS}]
```

```
            [<REM END> {REM}],
TAC <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
TMS <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
SMA <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}
            [<REM END> {REM}],
DTCI <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
ICP <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
ITAC <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
DFI <NO> {0 TO 255}
            [<CARRIER> {0 TO 20}]
```

```
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}]
                    [<SNT OPT> {VT1H}],
               HSI2 <NO> {0 TO 255}
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               GPP <NO> {0 TO 255}
                    [<CARRIER> {0 TO 53}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               RCC <NO> {0 TO 255}
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}]
                    [<C-side Carrier> {C}],
               RMSC <NO> {0 TO 255}
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               TRCC <NO> {0 TO 511}
                    [<CARRIER> {0 TO 15}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               RCCI <NO> {0 TO 255}
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
```

```
            [<REM END> {REM}]
            [<C-side Carrier> {C}],
ARCC <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}]
            [<C-SIDE CARRIER> {C}],
PRCC <NO> {0 TO 255
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}]
            [<C-SIDE CARRIER> {C}],
RCC2 <NO> {0 TO 255}
            [<CARRIER> {0 TO 53}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}]
            [<C-SIDE CARRIER> {C}],
SRCC <NO> {0 TO 255}
            [<CARRIER> {0 TO 53}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}]
            [<C-SIDE CARRIER> {C [<SNT OPT>{VT1H}]}],
RCO2 <NO> {0 TO 255}
            [<CARRIER> {0 TO 53}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}]
            [<C-SIDE CARRIER> {C}],
```

```
SPM <NO> {0 TO 63}
         [<CKTID> {0 TO 181}]
         [<PCMTYPE> {OC3S,
                     STS3L,
                     STS1P,
                     DS3P,
                     VT15P,
                     DS1P}]}]
```

Parameters

The following table describes the parameters.

Table 2-19 (Sheet 1 of 5)

Parameter	Value	Description
condition		A condition that the carrier may possess (optional)
	trunks	The carrier has trunks (class); XPM and SPM
	remote	The carrier has a remote end (class); XPM
	timing	The carrier is a timing carrier (class); XPM
	protline	The carrier is protected; XPM
	ds0lnk	DS-0 link (class); XPM
	hscarr	High-speed carrier (class); SPM
	ds1	Carrier type; XPM
	ds30	Carrier type; XPM
	m20	Carrier type; XPM
	ttc	Carrier type; XPM
	vt1h	Carrier type; XPM
	nds0	Carrier type; XPM
	oc3s	OC3 Section (carrier type); SPM

Table 2-19 (Sheet 2 of 5)

Parameter	Value	Description
	sts3l	STS3 Line (carrier type); SPM
	sts1p	STS1 Path (carrier type); SPM
	ds3p	DS3 Path (carrier type); SPM
	vt15p	VT15 Path (carrier type); SPM
	ds1p	DS1 Path (carrier type); SPM
	cbsy	C-side busy (state); XPM and SPM
	pbsy	P-side busy (state); XPM
	insv	In-service (state); XPM and SPM
	manb	Manual busy (state); XPM and SPM
	sysb	System busy (state); XPM and SPM
	uneq	Unequipped (state); XPM
	offl	Offline (state); XPM and SPM
	alarm	Alarm (alarm); XPM and SPM
	os	Out-of-service limit (limit); XPMs, SPM carriers that are SYSB-P
	ml	Maintenance limit (limit); XPMs, Performance Parameter alarms; SPM
	ec	Echo (echo type); XPM
hs opt	hs	An alarm option (optional); applicable only to peripherals which have high-speed carriers; SPM
carname	name	Constant used to denote the desire to post a carrier by its name (optional); SPM
the_name	string	The logical name of the SPM carrier; a string of up to 38 characters
pm	DCM	An XPM
	DCA	An XPM
	DCT	An XPM

Table 2-19 (Sheet 3 of 5)

Parameter	Value	Description
	DTC	An XPM
	LTC	An XPM
	LGC	An XPM
	IDTC	An XPM
	SMR	An XPM
	SMS	An XPM
	SMU	An XPM
	ILGC	An XPM
	ILTC	An XPM
	SMSR	An XPM
	ADTC	An XPM
	ALGC	An XPM
	PDTC	An XPM
	TDTC	An XPM
	TLTC	An XPM
	PLGC	An XPM
	TAC	An XPM
	TMS	An XPM
	SMA	An XPM
	DTCI	An XPM
	ICP	An XPM
	ITAC	An XPM
	DFI	An XPM
	HSI2	An XPM
	GPP	An XPM
	RCC	An XPM

Table 2-19 (Sheet 4 of 5)

Parameter	Value	Description
	RMSC	An XPM
	TRCC	An XPM
	RCCI	An XPM
	ARCC	An XPM
	PRCC	An XPM
	RCC2	An XPM
	SRCC	An XPM
	RCO2	An XPM
	SPM	An SPM
no	0 to max_pm; the maximum is unique for each type of peripheral	The peripheral number (required); if a peripheral is selected, specify a peripheral number.
carrier	0 to max_carrier; the maximum number of carriers is unique to the peripheral type	The carrier number (optional); if a peripheral and peripheral number are specified, specify a carrier number.
trks opt	trks	A carrier option (optional); XPM. If a peripheral, a peripheral number and a carrier number are specified, specify the TRKS OPT carrier option. For XPMs, specify the TRKS OPT option or the REM END option for a carrier, but not both at the same time.
rem end	rem	A carrier option (optional); XPMs. If a peripheral, a peripheral number and a carrier number are specified, specify the REM END carrier option. Specify the TRKS OPT option or the REM END option for a carrier, but not both at the same time.
pcm opt		Available for the PDTC peripheral only (optional)
	d30	Carrier type; XPM

Table 2-19 (Sheet 5 of 5)

Parameter	Value	Description
	m20	Carrier type; XPM
	ttc	Carrier type; XPM
	nds0	Carrier type; XPM
snt opt	vt1h	A SONET option (optional); available for the DFI peripheral; available for the SRCC peripheral as an option to the C-side carrier option
C-side carrier	c	A carrier option (optional); available only for RCC, RCCI, ARCC, PRCC, RCC2, SRCC, RCO2 peripherals. If a peripheral and a peripheral number are specified, specify the C-SIDE CARRIER carrier option. If a peripheral, a peripheral number, and a carrier number are specified, specify the C-SIDE CARRIER carrier option.
cktid	0 to 181	SPM carrier number
pcmtype	oc3s	OC3 Section (carrier type); SPM
	sts3l	STS3 Line (carrier type); SPM
	sts1p	STS1 Path (carrier type); SPM
	ds3p	DS3 Path (carrier type); SPM
	vt15p	VT15 Path (carrier type); SPM
	ds1p	DS1 Path (carrier type); SPM

MAP responses

The following are responses to this command.

Table 2-20 (Sheet 1 of 2)

Response	Explanation and action
`POST NAME xxxxx` `No carrier with that logical name`	The user tried to post a carrier by a nonexistent logical name. The first line of the response echoes the Post command (xxxxx represents the name entered). The error response displays below the data already displayed on the screen. Execute any of the menu or unlisted commands available at the current level.
`Specified PM has no carriers`	The SPM specified has no carriers or there is no such SPM.
`Specified carrier does not exist`	There is no carrier for the specified circuit.
`Empty set`	There are no carriers in the set specified (for example, POST SPM 0 VT15P when there are no VT15 Paths on the SPM).
`REENTER POST LEVEL - The last displayed carrier was deleted`	If the user has performed a post by condition (for example, POST INSV and the last carrier on the screen is deleted in table MNHSCARR), the result of Next can be misleading. Enter the Post command again.
`Do not specify CKT to post Physical Carrier Ancestors.`	The user specified the circuit number while trying to post physical carrier ancestors. Since either physical carrier may be carrying payload at any time, the user should post by PCM type to get a an accurate picture of the carrier state. Example: `POST SPM 1 15 OC3S` Enter the command again without specifying the SPM number or circuit number.

Table 2-20 (Sheet 2 of 2)

Response	Explanation and action

`PM types incompatible.`	The user attempted to post multiple carriers by specifying them individually, but the pmtypes of all the carriers are not the same. Examples of erroneous input include the following:
	`POST SPM 0 1 DTC 10 5`
	`POST DTC 2 5 SPM 1 0`
	
	Enter the command again specifying carriers of a single pmtype.

EITHER incorrect optional parameter(s) OR too many parameters.	The user attempted to post multiple carriers by specifying them individually, but did not use the format required. Examples of erroneous input include the following:
	`POST SPM 0 1 STS1P SPM 1 5`
	`POST SPM 2 0 SPM 1 6 DS1P`
	`POST SPM 0 5 SPM 1`
	`POST SPM 0 SPM 1 6`
	`POST SPM 0 5 5`
	
	Enter the command again using correct syntax.

Examples

Examples of commands, along with a description of the command are shown in the following table.

Table 2-21 (Sheet 1 of 3)

Command	Description
`POST spm 5`	Post a carrier set specifying the SPM number only. A Post set is created that contains all the carriers on the SPM. Carriers are sorted hierarchically starting with OC3 Section.
`POST SPM 5 15`	Post a carrier set specifying the SPM number and the circuit number. A post set is created that contains the specified circuit and all the carriers hierarchically below that carrier.

Table 2-21 (Sheet 2 of 3)

Command	Description
POST SPM 5 VT15P	Post a carrier set specifying the SPM number and PCM type. A post set is created that contains all the carriers on the SPM of that PCM type.
POST SPM 5 15 VT15P	Post a carrier set specifying SPM number, circuit, and PCM type with a PCM type that is hierarchically below or the same as the specified circuit. A post set is created that contains the specific circuit and all the carriers hierarchically below that carrier and with the specified PCM type. (If the PCM type specified is the same as the circuit specified, only that carrier will be in the post set.)
POST SPM 5 120 STS1P	Post a carrier set specifying the SPM number, circuit, and a PCM type that is for a logical carrier hierarchically above the specified circuit. A post set is created that contains the ancestor carrier of the specified PCM type.
POST SPM 5 120 OC3S	Post a carrier set specifying the SPM number, circuit, and PCM type with a PCM type that is for a physical carrier hierarchically above the specified circuit.
Do not specify CKT to post Physical Carrier Ancestors.	Since either physical carrier may be carrying payload at any time, the user should post by PCM type to get an accurate picture of the carrier state. Example: POST SPM 5 OC3S
POST SPM 0 1 SPM 0 5 SPM 1 35 SPM 1 40 SPM 2 0	Post a carrier set specifying the pmtype, pm number, and circuit number of each of the carriers individually. Note that a maximum of five carriers can be specified and that all pmtypes must be the same. A post set is created that contains the specified carriers. The parameters are interpreted literally, and each circuit is added in order to the post set if there is such a circuit present.
POST NAME <CARRIER NAME>	Post a carrier set specifying a carrier name. A post set is created that contains carrier specified (SPM only).

Table 2-21 (Sheet 3 of 3)

Command	Description
POST ML	Post a set of carriers containing SPM carriers that have Performance Parameter alarms and XPM carriers that have Maintenence Limit alarms. A post set is created that contains SPM carriers that have Performance Parameter alarms and XPM carriers that have Maintenence Limit alarms.
POST OS	Post a set of carriers containing SPM carriers that are SYSB-P (permanently out of service due to failing hardware tests) and XPM carriers that have out-of-service carrier alarms. A post set is created that contains SPM carriers that are SYSB-P and XPM carriers that have out-of-service alarms.

PPQuery
PERFMON level

Purpose

The PPQuery command displays the current 24-hour performance parameter counts as well as the 15-minute and 24-hour performance parameter thresholds for the specified carrier.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
PPQUERY -> Query all the performance parameters for the selected
carrier.
```

MAP responses

The following are responses to this command.

Table 2-22 (Sheet 1 of 3)

Response	Explanation and action
>ppquery | 15Min Prv15 15Min | Day PrvDay Day Parm Alm | Count Count Thres | Count Count Thres ---- ---- | ----- ----- ----- | ----- ----- ----- SEFS-N . | 10* 8* 7 | 40* 10 17 CV-N NAlm | 1256 1768* 1772 | 5512* 1024 4430 ES-N . | 92 48 346 | 192 04 864 SES-N . | 0 0 2 | 0 6 4 AISS-N - | 10 8 - | 90 88 - | Set Clear Parm Alm | Count Thres Thres ------ ---- | ----- ----- ----- LBC-N Crt | 170* 150 125 OPT-N . | 90 85 95 OPR-N . | UNSET 85 95 Interval: 15Min= 7:26 Day= 0:07:07 IDF-N: Curr15 Prev15	This response occurs when the user enters PPQuery. The meanings for entries are as follows: • . — parameter is not over the threshold • NAlm — no alarm • Mnr — minor alarm • Mjr - major alarm • Crt — critical alarm • - — not applicable; parameter has no threshold • * — after current register count values indicates the value is over the theshold ***Note:*** AISS-N is not a valid parameter for an OC3 Section, but is included to show how parameters without thresholds are handled.

Table 2-22 (Sheet 2 of 3)

Response	Explanation and action
	There are two thresholds for the Metered Performance parameters—Set and Clear. The LBC-N Metered Performance parameter is alarmed when it is on the high side, while the OPT-N and OPR-N Metered Performance parameters are alarmed when they are on the low side. If the OPR0 has never been set for an OC3 Section, the word “UNSET" displays as the OPR-N value. The UNSET value indicates that the OPR0 has not been set for this OC3 Section carrier. Execute the PerfMon command “MeterPP Record Opr0" to record a value for OPR0.
`No Action Taken: SPM x CKT y: Software error.`	The PPQuery command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	A PPQuery request for the specified carrier was submitted, but it is unclear whether the request was completed.

Table 2-22 (Sheet 3 of 3)

Response	Explanation and action
`Action unconfirmed: SPM x CKT y: Software error.`	A PPQuery request for the specified carrier was submitted, but it is unclear whether the request was completed. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module. PPQuery data cannot be retrieved.
`No Action Taken: SPM x CKT y: Messaging to PM Unavailable.`	There is no messaging to the SPM. PPQuery data cannot be retrieved.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The PPQuery command was executed on the posted carrier that has since been deleted. PPQuery cannot be executed for this carrier.
`No Action Taken: SPM x CKT y: No mailbox allocated.`	The PPQuery command was not submitted because no mailbox exists to receive the response.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. PPQuery cannot be executed at this time.
`No reply from task process`	No response was received from the SPM.
`Mailbox wait failed`	Error occurred when a response was received from the SPM. Record the response and the accompanying swerr.
`Invalid reply`	Reply received was invalid.

Example

None

Quit
DISPLAY, POST, and PERFMON levels

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 2-23

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

RTS
POST level

Purpose

The RTS command attempts to put the specified carrier(s) in an in-service state.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS    RTS THE SPECIFIED CARRIER

         [<CARRIER> {0 TO 4}]

         [<ALL> {ALL}]

         [<FORCE> {FORCE}]
```

A number of rules govern when it is valid to return to service (RTS) a SPM carrier. For example, one cannot RTS a SPM carrier whose parent carrier is offline (OffL) or manual busy (ManB).

The general guidelines for returning SPM carriers to service is that it must be done “from the top down." That is, the carriers at the top of the carrier hierarchy, the OC3 Sections, must be returned to service first, followed by the STS3 Lines, the STS1 Paths, and so on.

Parameters

The following table describes the parameters.

Table 2-24 (Sheet 1 of 2)

Parameter	Value	Description
carrier	0 to 4	Carrier display number

Table 2-24 (Sheet 2 of 2)

Parameter	Value	Description
all	all	All carriers in Post set
force	force	Do not run tests

MAP responses

The following are responses to this command.

Table 2-25 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The RTS command successfully completed.
`No Action Taken: SPM x CKT y: Software error.`	The RTS command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	An RTS request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	An RTS request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. RTS cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. RTS cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is INSV.`	The carrier is already in an in-service state.
`No Action Taken: SPM x CKT y: Carrier is CBSY.`	The carrier is already in a CBSY in-service (state).
`No Action Taken: SPM x CKT y: Carrier is SYSB.`	The carrier is already in an SYSB in-service (state).
`No Action Taken: SPM x CKT y: Carrier is OFFL.`	The carrier is in an offline state. RTS cannot be executed at this time.

Table 2-25 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y: Carrier has an OFFL or MANB parent carrier.`	The parent of this carrier is out of service. RTS cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is looped.`	The carrier is in a loopback state. Clear the loopback before executing RTS.
`No Action Taken: SPM x CKT y: Carrier is INSV, CBSY or SYSB.`	The carrier is INSV, CBSY, or SYSB. RTS cannot be executed.
`No Action Taken: SPM x CKT y: Tests failed.`	Tests failed on RTS. Carrier was not returned to service.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module; therefore, RTS cannot be executed at this time.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The RTS command was executed on a carrier that is listed in the Post set, but has since been deleted. RTS cannot be executed for this carrier.

Example

None

SilMl
PERFMON level

Purpose

The default SilMl command removes the carrier currently displayed at the PERFMON screen from the ML Post set and alarm count. When the ML alarms on a carrier have been silenced, the M column in the carrier's post display shows the letter “S". The alarms on the carrier are unsilenced automatically if a new TCA message is received for that carrier.

The SilMl UNDO command “unsilences" silenced ML alarms on the carrier.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SilMl -> Remove alarm indication for ML alarms on carrier

Parms: [<Undo> {UNDO}]
```

Parameters

The following table describes the parameters.

Table 2-26

Parameter	Value	Description
	no argument	Silences ML alarms on carrier
Undo	Undo	Undoes alarm silencing (optional)

MAP responses

The following table lists the options for responses to this command.

Table 2-27

Response	Explanation and action
`Ok.`	The user successfully silenced or unsilenced the ML alarms on the carrier.
`No Action Taken: SPM x CKT y:` `No ML alarms present.`	The user attempted to silence ML alarms on a carrier with no ML alarms.
`No Action Taken: SPM x CKT y:` `ML alarms already silenced.`	The SilMl command was not executed on the specified carrier (x = SPM number and y = carrier number) because the ML alarms on the carrier were already silenced.
`No Action Taken: SPM x CKT y:` `ML alarms already silenced.`	The user issued the SilMl Undo command and the ML alarms on the carrer are not already silenced.
`No Action Taken: SPM x CKT y:` `Carrier not provisioned.`	The SilMl command was executed on the posted carrier that has since been deleted. Therefore SilMl cannot be executed for this carrier.
`No Action Taken: SPM x CKT y:` `Software Error.`	The SilMl command was not executed on the specified carrier because of a software error. Record the response and capture the accompanying swerr.

Example

None

Tst
POST level

Purpose

The Tst command tests the specified carrier.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Specify one of the posted carriers.

```
Tst: TEST THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]
```

Parameters

The following table describes the parameters.

Table 2-28

Parameter	Value	Description
carrier	0 to 4	Carrier display number

MAP responses

The following are responses to this command.

Table 2-29 (Sheet 1 of 2)

Response	Explanation and action
`Carrier test passed.`	The tests passed.
`No Action Taken: SPM x CKT y: Software error.`	The Tst command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.

Table 2-29 (Sheet 2 of 2)

Response	Explanation and action
`Action unconfirmed: SPM x CKT y.`	A Tst request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A Tst request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Tst cannot be executed at this time.
`No Action Taken: SPM x CKT y: Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. Tst cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Tst cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is not MANB.`	The carrier is not in manual busy state; therefore, it cannot be tested.
`Tests failed.`	The tests failed.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module; therefore, no action is taken for the Tst command.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Tst command was executed on a carrier that is listed in the Post set, but has since been deleted. Therefore, Tst cannot be executed for this carrier.
`No Action Taken: SPM x CKT y: Messaging to PM unavailable.`	There is no messaging to the SPM.

Example

None

3 CarrUtil directory

This chapter describes the syntax, purpose, and semantics of the CarrUtil commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The CarrUtil CI increment supports a collection of carrier monitoring utilities. The commands in the CarrUtil increment support only Spectrum carriers. The CarrUtil commands are non-menu and are as follows:

- GetHist — The GetHist command retrieves archived Performance Monitoring (PM) data.
- Help
- ListHist — The ListHist command displays retrieved data.
- Quit
- SetCarr — The SetCarr command specifies the carrier to be monitored.

Note: The DS1Plimit command was removed from the CarrUtil directory in SP15. The functionality provided by the DS1Plimit command was transferred to Software Optionality Control (SOC). SOC functionality enables the operating company personnel to

- determine the maximum number of DS1P carriers that can be provisioned through table MNHSCARR
- determine how many DS1P carriers have already been provisioned in table MNHSCARR
- set a threshold for when a certain percent of the maximum number of DS1P carriers has been provisioned, which results in a warning message

To access the directory

The CarrUtil CI command puts the user into the CarrUtil CI increment providing the user access to CarrUtil carrier maintenance utility commands.

The command is as follows:

```
>CARRUTIL
```

To return to CI

```
>QUIT
```

GetHist

Purpose

The GetHist (GH) command retrieves the archived near end (NE) or far end (FE) performance monitoring data for the specified set of counts (15 minute counts (MIN) or 24 hour counts (DAY)) for the carrier placed in context by the SetCarr command.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The parameters for the GetHist command require the user to specify the data to be retrieved.

```
Get archived Performance Monitoring data for the carrier in
context.

Parms: <Direction> {NE,

                    FE}

       <Counts> {MIN,

                DAY}
```

Parameters

The following table describes the parameters.

Table 3-1 (Sheet 1 of 2)

Parameter	Value	Description
direction		Identify the monitored entity of the carrier in context for which archived Performance Monitoring data is to be collected (required).
	NE	Near end monitored entity
	FE	Far end monitored entity

Table 3-1 (Sheet 2 of 2)

Parameter	Value	Description
counts		Identify the set of archived performance monitoring data to be collected (required).
	min	Display the archived 15-minute performance monitoring data. Up to eight hours of data are collected.
	day	Display the archived 24-hour performance monitoring data. Up to seven days of data are collected.

MAP responses

The following are responses to this command.

Table 3-2 (Sheet 1 of 3)

Response	`No carrier in context.` `Execute SetCarr to put a carrier in context.`
Explanation and action	The GetHist CI command is issued before a carrier has been selected by the SetCarr CI command. Specify the carrier to be put in context using the SetCarr CI command, then reissue the desired GetHist command.
Response	`SPM 5 OC3 RM 0 OC3S 0 STS3L 0 NE` `7 records retrieved`
Explanation and action	The GetHist CI command is issued after a carrier has been selected by the SetCarr CI command. The carrier in context is echoed to the screen along with the direction—near end (NE) or far end (FE)—of the desired parameters to be collected. After the PM data is retrieved, the number of records (time periods) of data retrieved is reported.

Response	`Get archived Performance Monitoring data for the carrier in context`
	`Parms: <Direction> {NE,`
	`FE}`
	`<Counts> {MIN,`
	`DAY}`

Table 3-2 (Sheet 2 of 3)

Explanation and action	The user executed the command “q GetHist" or “q GH" or the user preceded the GetHist command with a string of characters that were not a command (for example, 54 GetHist FE DAY or boo GH). Correctly enter the GetHist command.

Response	`Next par is: <Direction> {NE,`
	`FE}`
	
	`Enter: <Direction> <Counts>`

Explanation and action	The GetHist command was entered without any parameters. The user is prompted for the required Direction and Counts parameters. Enter the Direction and Counts parameters to complete the specification of the GetHist command or enter abort to abort the command. If the user enters <ctrl>b HX, the CarrUtil CI increment is exited.

Response
Explanation and action
	`Next par is: <Counts> {MIN,`
	`DAY}`
	
	`Enter: <Counts>`
	
	An incomplete specification of the GetHist command was entered, such as, GetHist NE, GetHist FE, GH NE, or GH FE. In these cases, the Counts parameter was not entered. The user is prompted for the required Counts parameter.
	
	Enter the Counts parameter to complete the specification of the GetHist command or enter abort to abort the command. If the user enters <ctrl>b HX, the CarrUtil CI increment is exited.

Response	`Invalid symbol: <Direction> {NE,`
	`FE}`
	
	`Enter: <Direction> <Counts>`

Explanation and action	The GetHist command was entered with an invalid value for the Direction parameter. The user is prompted for the required Direction and Counts parameters. Enter the Direction and Counts parameters to complete the specification of the GetHist command or enter abort to abort the command. If the user enters <ctrl>b HX, the CarrUtil CI increment is exited.

Table 3-2 (Sheet 3 of 3)

Response
Explanation and action
	`Invalid symbol: <Counts> {MIN, FE}`
	`Enter: <Counts>`
	The GetHist command was entered with an invalid value for the Counts parameter. The user is prompted for the required Counts parameter.
	The user may enter the Counts parameter to complete the specification of the GetHist command or enter abort to abort the command. If the user enters <ctrl>b HX, the CarrUtil CI increment is exited.

Response
Explanation and action
	`EITHER incorrect optional parameter(s) OR too many parameters.`
	`GETHIST -- Wrong number of parameters.`
	The GetHist command was entered with too many parameters. Examples of this include “GetHist NE MIN aaaaa" and “GetHist FE DAY 54".
	Enter the GetHist command again with the proper number of parameters.

Response
Explanation and action
	`EITHER incorrect optional parameter(s) OR too many parameters.`
	`GH -- Wrong number of parameters.`
	The abbreviated version of the GetHist command (GH) was entered with too many parameters. Examples of this include “GH NE MIN aaaaa" and “GH FE DAY 54".
	Enter the GetHist command again with the proper number of parameters.

Response	`EITHER incorrect optional parameter(s) OR too many parameters.` `Wrong number of parameters.`
Explanation and action	Too many parameters were entered when prompted for GetHist parameters. Examples of this include entering “NE MIN aaaaa" when prompted for the Direction and Counts parameters and “MIN 54" when prompted for the Counts parameters. Enter the GetHist command again with the proper number of parameters.

Example

```
>GETHIST NE MIN
```

Help

Purpose

The Help command provides information regarding the CI commands available in the CarrUtil CI increment.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

Given no parameters, the Help command lists all of the CI commands available in the CarrUtil CI increment with descriptions of their functions. The Help command accepts a single parameter containing the name of the CarrUtil CI increment command for which more information is needed.

```
Help:

Parms: <COMMAND> {HELP,

                  SETCARR,

                  GETHIST,

                  LISTHIST,

                  QUIT}
```

Parameters

The following table describes the parameters.

Table 3-3

Parameter	Value	Description
COMMAND	string	The command for which usage information is needed (optional)

MAP responses

None

Examples

The following are examples of this command.

```
>Help

>Help HELP

>Help SETCARR

>Help GETHIST

>Help LISTHIST

>Help QUIT
```

ListHist

Purpose

The ListHist (LH) command displays the historical data retrieved by the GetHist CI command. ListHist displays the data retrieved by the last successful execution of the GetHist command.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Display collected archived Performance Monitoring data.
```

Parameters

None

MAP responses

The following are responses to this command.

Table 3-4 (Sheet 1 of 4)

Response	`GetHist must be executed before ListHist.`
Explanation and action	The ListHist CI command is issued before archived data for a specified carrier has been retrieved using the GetHist command. The user must execute the GetHist command to retrieve archived Performance Monitoring data for that carrier. (If a carrier has not already been put in context, specify a carrier using the SetCarr command before executing the GetHist command.) Finally, the user can reissue the ListHist command to display the collected data.
Response	`Display archived Performance Monitoring data for the carrier in context`
Explanation and action	The user executed the command “q ListHist" or “q LH" or preceded the ListHist command with a string of characters that were not a command (for example, 63 ListHist or boo LH). Correctly enter the ListHist command.

Table 3-4 (Sheet 2 of 4)

Response

```
EITHER incorrect optional parameter(s) OR too many
parameters.
```

Explanation and action

The ListHist command was entered with parameters. Examples of this include “ListHist x", “ListHist 54", and “LH 100". Enter the ListHist command again with no parameters.

Response

```
SPM    5 OC3RM  0 OC3S   0                    NE

Archived 15 Minute Performance Monitoring Data Report

Generated at 97/04/13 16:48.

Ended  secs I   LBC-N   OPT-N   OPR-N  SEFS-N    CV-N    ES-N
SES-N
16:30   900       96     104      99       0       0       0       0
16:15   900       91     102     119       -       -       -       -
16:00   900      106      98     108       0       0       0       0
15:45   900      102      97     112       0       0       0       0
.
.
12:15   900 *    115     102      95       0       0       0       0
12:00   900       94      97      81     326     116      13       3
11:45   900      102      99     132      15       4       0       0
11:30   900      103     101     103       0       0       0       0
11:15   900      101     103      98       0       0       0       0
.
.
 9:30   900       96     104      99       0       0       0       0
 9:15   900       91     102     119       0       0       0       0
 9:00   900      106      98     108       0       0       0       0
 8:45   900      102      97     112       0       0       0       0
End of report.
```

Table 3-4 (Sheet 3 of 4)

Explanation and action	This is an example of a report displayed by the ListHist command. In order to get this response, the user must have selected a carrier using the SetCarr command and retrieved archived 15-minute performance monitoring data for the near end monitored entity using the GetHist command. This report displays eight hours of archived 15-minute near end performance parameter data for the OC3 Section in context. Each line presents data collected for a separate 15-minute period. It is possible for there to be multiple entries for a given time period. A time of day change will cause this to occur; an example is the return to standard time from daylight savings time. It is also possible for there to be missing time periods. A time of day change will cause this to occur; an example is the change to daylight savings time from standard time. The first column identifies the end of the 15-minute collection period. The second column records the duration of the corresponding collection period in seconds (900 seconds equals 15 minutes). The third column contains an * if the Invalid Data Flag (IDF) was set for the collection period. The remaining columns are used to output the archived 15 minute performance parameters collected during that period. Note that is it possible for a column entry to contain a dash (-) instead of a numeric value. This occurs when data for that parameter was not collected/retrieved during that time period. The example suggests that there was a performance problem at sometime around noon. For example, the IDF set for the 12:15 data may indicate that the data registers were manually cleared at some time during this collection period. LBC, OPT, and OPR are metered performance parameters. Therefore, the displayed values are snapshots of their values at the end of the period as opposed to counts accumulated over the period.
Response	SPM 5 OC3RM 0 OC3S 0 STS3L 0 FE Archived 24 hour Performance Monitoring Data Report Generated at 97/04/13 17:12. Ended secs I CV-F ES-F SES-F UAS-F 4/12 86400 0 0 0 0 4/11 86400 0 0 0 0 4/10 86400 0 0 0 0 4/09 86400 0 0 0 0 End of report.

Table 3-4 (Sheet 4 of 4)

Explanation and action	This is an example of a report displayed by the ListHist command. In order to get this response, the user must have selected a carrier by way of the SetCarr command and retrieved archived day (24 hour) performance monitoring data for the far end monitored entity using the GetHist command. This report displays four days of archived 24-hour performance parameter data for the far end of the STS1 Path in context. Each line presents data collected for a separate day (24 hour) period. The GetHist command attempts to retrieve 7 days worth of archived data (when the DAY parameter is specified). This report illustrates the fact that there were only four days of DAY data available for this carrier. The first column identifies the date of the 24-hour collection period. The second column records the duration of the corresponding collection period in seconds (86400 seconds equals 24 hours). The third column contains an * if the IDF was set for the collection period. The remaining columns are used to output the archived 24-hour performance parameter data collected during that period.

Response	`SPM    5          STS1P  1 DS3P   1 DS1P   1  NE`
	
	`Archived 15 Minute Performance Monitoring Data Report`
	
	`Generated at 97/04/13 16:48.`
	
	`End of report.`

Explanation and action	This is an example of a report displayed by the ListHist command. In order to get this response, the user must have selected a carrier by way of the SetCarr command and retrieved archived 15-minute performance monitoring data for the near end monitored entity by way of the GetHist command. No 15-minute performance monitoring data is displayed. That is, no data was found in the archives. It is likely that this carrier was not provisioned during the last eight hours.

Example

None

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 3-5

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

SetCarr

Purpose

The SetCarr command sets a carrier to be in context.

The SetCarr CI command must be able to specify carriers that are no longer provisioned as well as carriers that are currently provisioned. Allowing the carrier in context to be a carrier that is not currently provisioned enables the GetHist command to retrieve historical Performance Monitoring data for carriers that were previously provisioned. The SetCarr CI command can only specify single carriers.

Note: Any commands executed in CarrUtil are performed on the carrier in context.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Select the Carrier to be in context.

Parms: [<CARNAME> {NAME <THE_NAME> STRING}]

       <PM> {SPM <NO> {0 TO 63}

                 [<CKTID> {0 TO 181}]

                 <CARRIER> {OC3RM <PACKNO> {0 TO 1}

                        <PCMTYPE> {OC3S <CKTNO> {0 TO 0}

                           <PCMTYPE> {STS3L <CKTNO> {0 TO 0}}},

                    STS1P <CKTNO> {1 TO 3}

                           <PCMTYPE> {DS3P <CKTNO> {1 TO 1}

                              <PCMTYPE> {DS1P <CKTNO> {1 TO 28}},

                           VT15P <CKTNO> {1 TO 28}
```

```
<PCMTYPE> {DS1P <CKTNO> {1 TO 1}}}}}
```

A carrier that is not provisioned cannot be specified by its name (CARRNAME) or identifier (CKTID). Therefore, the SetCarr command also allows a carrier to be specified by way of its carrier payload description.

Parameters

The following table describes the parameters.

Table 3-6 (Sheet 1 of 2)

Parameter	Value	Description
carrname	name	Constant used to denote the desire to post a carrier by its name (optional)
the_name	string	The logical name of a SPM carrier; a string of up to 38 characters (optional)
pm		The peripheral type (optional)
	SPM	SPM
no	0 to 63	The peripheral number (required). If a peripheral type is specified, specify a peripheral number.
carrier		The starting point from which the carrier's carrier payload description position is defined (required).
	OC3RM	If a peripheral type and peripheral number are specified, specify a physical carrier starting with the OC3 RM.
	STS1P	If a peripheral type and peripheral number are specified, specify a logical carrier, starting with the STS1 Path.
packno	0 to 1	OC3RM number (required). If OC3RM is specified, specify the OC3RM number.
cktno	0 to 28 The minimum and maximum values depend on the parent carrier and the PCM type.	The circuit payload number (required). If a PCM type is specified, specify the circuit payload number for each PCM type specified.

Table 3-6 (Sheet 2 of 2)

Parameter	Value	Description
pcmtype		Physical PCM types (optional once the OC3S has been specified)
	OC3S	OC3 Section (carrier type). If an OC3RM is specified, specify OC3S.
	STS3L	STS3 Line (carrier type). If an OC3S is specified, specify STS3L.
pcmtype		Logical PCM types (optional)
	DS3P	DS3 Path (carrier type). If an STS1P is specified, specify DS3P.
	VT15P	VT15 Path (carrier type). If an STS1P is specified, specify VT15P.
	DS1P	DS1 Path (carrier type). If a DS3P or VT15P is specified, specify DS1P.
cktid	0 to 181	The carrier number (required). If a peripheral type and peripheral number are specified, specify the carrier by using its identifier.

MAP responses

The following are responses to this command.

Table 3-7 (Sheet 1 of 3)

Response	`SPM 5 OC3 RM 0 OC3S 0` `SPM 5 0 : Name RTPOC3WORKING`
Explanation and action	The user successfully selects a carrier that is provisioned. The system displays the carrier currently in context. Execute any CarrUtil command that can operate on a provisioned carrier. There is no guarantee that the carrier will remain provisioned. A user may deprovision a carrier while it is in context within a CarrUtil CI increment.
Response	`SPM 5 STS1P 1 DS3P 1 DS1P 28` `This Carrier is currently not provisioned.`

Table 3-7 (Sheet 2 of 3)

Explanation and action	The user successfully selects a carrier that is not provisioned. The system displays the carrier currently in context, but indicates that this carrier is currently not provisioned. Execute any CarrUtil command that can operate on a carrier, but does not require the carrier to be provisioned. Note that the carrier may become provisioned. A user may provision a carrier while it is in context within a CarrUtil CI increment.

Response	`No Carrier in Context.`
	
	`This Carrier is currently not provisioned.`

Explanation and action	The user uses the SetCarrCI command to display the current carrier in context when there is no carrier in context. The system indicates that there is no carrier currently in context and that the carrier is currently not provisioned. Use the SetCarr CI command to specify a carrier to be put in context before executing any CarrUtil CI increment commands that require a carrier to be in context.

Response	`ERROR: Carrier XXX is currently not provisioned.`
	
	`INFO: Carrier previously in context will remain in context.`
	
	`SPM 5 OC3RM 0 OC3S 0`
	
	`SPM 5 0 : Name RTPOC3WORKING`

Explanation and action	The carrier specified by name to the SetCarr CI command is currently not provisioned. The system indicates that a carrier with the specified name (XXX) is currently not provisioned. The system then informs the user that the carrier previously in context will remain in context and displays the carrier currently in context. Issue the SetCarr CI command with a valid specification of the desired carrier.

Response	`ERROR: Carrier SPM 63 179 is currently not provisioned.`
	
	`INFO: Carrier previously in context will remain in context.`
	
	`SPM 5 OC3RM 1 OC3S 0`
	
	`SPM 5 0 : Name RTPOC3SPARE`

Explanation and action	The carrier specified by its SPM number and circuit identifier to the SetCarr CI command is currently not provisioned. The system indicates that a carrier with the specified SPM number and circuit identifier (SPM 63 179) is currently not provisioned. The system then informs the user that the carrier previously in context will remain in context and displays the carrier currently in context. Issue the SetCarr CI command with a valid specification of the desired carrier.

Table 3-7 (Sheet 3 of 3)

Response	`INFO: Carrier previously in context will remain in context.`
	`SPM 5 OC3RM 1 OC3S 0`
	`SPM 5 0 : Name RTPOC3SPARE`

Explanation and action	The user aborted the input of parameters to the SetCarr CI command. The system informs the user that the carrier previously in context will remain in context and displays the carrier currently in context. Issue the SetCarr CI command with a valid specification of the desired carrier.

Response	`EITHER incorrect optional parameter(s) OR too many parameters.`
	`INFO: Carrier previously in context will remain in context.`
	`SPM 5 OC3RM 1 OC3S 0`
	`SPM 5 0 : Name RTPOC3SPARE`

Explanation and action	The user either entered an incorrect optional parameter or too many parameters. The system informs the user of the error. The system then informs the user that the carrier previously in context will remain in context and displays the carrier currently in context. Issue the SetCarr CI command with a valid specification of the desired carrier.

Examples

To select a carrier by specifying a currently provisioned carrier name, enter the following:

```
>SETCARR NAME RTPSTS1P2

SPM    5 STS1P  2

SPM    5   4 : Name RTPSTS1P2
```

To select a currently provisioned carrier by its SPM number and CKTID, enter the following:

```
>SETCARR SPM 5 7

SPM   5 STS1P 2 DS3P  1

SPM   5  7 : Name RTPDS3P2
```

To select a carrier by specifying its payload position, even if the carrier is not currently provisioned, enter the following:

```
>SETCARR SPM 5 STS1P 1 DS1P 28
```

```
SPM   5 STS1P 2 DS3P  DS1P 28

This Carrier is currently not provisioned.
```

To determine which carrier is currently in context by issuing the SetCarr CI command without parameters, enter the following:

```
>SETCARR

SPM  5 STS1P 2 DS3P  1 DS1P 28

This Carrier is currently not provisioned.
```

4 ENET CARD directory

This chapter describes the syntax, purpose, and semantics of some of the ENET CARD commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when you use the command.

ENETCD9X40 card

The ENETCD9X40 commands are as follows:

- RTS
- Tst

en_cardds512 card

The en_cardds512 commands are as follows:

- Tst
- Bsy
- RTS
- OffL
- Link

To access the directory

```
>MAPCI;MTC;NET;SHELF <shelf>;CARD <card no>
```

This is an example of entering the command:

```
>MAPCI;MTC;NET;SHELF 0; CARD 0
```

To return to CI

```
>QUIT ALL
```

Bsy en_cardds512

Purpose

The Bsy command is used to provide maintenance on fiber links subtending off the enhanced network (ENET) node. The responses support fiber link to the SPM.

Before SP14, to prevent Spectrum Peripheral Module (SPM) computing equipment module (CEM) isolation during ENET maintenance, the user received the following warning when executing the BSY command at the Card level:

```
WARNING: This action will cause NETWORK BLOCKAGE. Please confirm
(“YES", “Y", “NO", or “N"):
```

With SP14, a second layer of checks is available to prevent isolation of the SPM CEM when the user executes the card BSY command:

```
WARNING: OPERATION WILL ISOLATE ONE OR MORE NODES FROM THE CM

WARNING: BSY in this link may cause loss of service. Please
confirm (“YES", “Y", “NO", or “N"):
```

The warning ensures that the user know that BSYing a particular card can cause a node to isolate from the computing module (CM).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

MAP responses

The following are the responses to the command.

ATTENTION
These responses are for SPM commands only.

Table 4-1 (Sheet 1 of 2)

Response	Explanation and action
Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: Timed out waiting for Completed signal -note that there are many other possible reasons that can be displayed <OR> Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: CRC error detected Problem Type: end to end Suspect card list: Site Flr RPos Bay_id Shf Description Slot EqPEC HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X40DA BACK HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X35BA FRNT HOST 01 A00 ENC 0 0 00 ENET:0:00 08 9X36BA FRNT	The failure responses back from link maintenance are shown. Follow card list replacement procedure if card list is shown.

Table 4-1 (Sheet 2 of 2)

Response	Explanation and action
`No maintainable DS-30 equivalents on this fiber.`	On new fiber links, it is not necessary to maintain the link as DS-30 equivalents.

Example

None

ENET restriction

If an ENET pair is taken down, trunks go to CFL state. However, the carrier state does not report this change for OC3, and the ATMCON state does not report this change for ATM.

Link en_cardds512

Purpose

The Link command is used to provide maintenance on fiber links subtending off the enhanced network (ENET) node. The responses support fiber link to the SPM.

To prevent Spectrum Peripheral Module (SPM) computing equipment module (CEM) isolation during ENET maintenance, the user receives the following warning when BSYing a link:

```
WARNING: OPERATION WILL ISOLATE ONE OR MORE NODES FROM THE CM

WARNING: BSY in this link may cause loss of service. Please
confirm (“YES", “Y", “NO", or “N"):
```

The warning ensures that the user know that BSYing a link can cause a node to isolate from the computing module (CM).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

MAP responses

The following are the responses to the command.

ATTENTION
These responses are for SPM commands only.

Table 4-2 (Sheet 1 of 2)

Response	Explanation and action
Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: Timed out waiting for Completed signal -note that there are many other possible reasons that can be displayed <OR> Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: CRC error detected Problem Type: end to end Suspect card list: Site Flr RPos Bay_id Shf Description Slot EqPEC HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X40DA BACK HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X35BA FRNT HOST 01 A00 ENC 0 0 00 ENET:0:00 08 9X36BA FRNT	The failure responses back from link maintenance are shown. Follow card list replacement procedure if card list is shown.

Table 4-2 (Sheet 2 of 2)

Response	Explanation and action
`No maintainable DS-30 equivalents on this fiber.`	On new fiber links, it is not necessary to maintain the link as DS-30 equivalents.

Example

None

OffL en_cardds512

Purpose

The OffL command is used to provide maintenance on fiber links subtending off the enhanced network (ENET) node. The responses support fiber link to the SPM.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

MAP responses

The following are the responses to the command.

> **ATTENTION**
> These responses are for SPM commands only.

Table 4-3 (Sheet 1 of 2)

Response	Explanation and action
Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: Timed out waiting for Completed signal -note that there are many other possible reasons that can be displayed <OR> Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: CRC error detected Problem Type: end to end Suspect card list: Site Flr RPos Bay_id Shf Description Slot EqPEC HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X40DA BACK HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X35BA FRNT HOST 01 A00 ENC 0 0 00 ENET:0:00 08 9X36BA FRNT	The failure responses back from link maintenance are shown. Follow card list replacement procedure if card list is shown.

Table 4-3 (Sheet 2 of 2)

Response	Explanation and action
`No maintainable DS-30 equivalents on this fiber.`	On new fiber links, it is not necessary to maintain the link as DS-30 equivalents.

Example

None

RTS
ENETCD9X40

Purpose

The RTS command requests that an ENET crosspoint slot, card, or paddleboard be returned to service.

At the CARD level of the MAP, this command may also be applied to P-side links, but this feature impacts only the card Tst/RTS, not the link Tst/RTS.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

Parameters

SPM affects <failed tests> and <cardlist> fields.

See “MAP responses."

MAP responses

Failure reasons applicable to the NT9X40DA paddleboard display on the MAP terminal when an in-service or out-of-service paddleboard test fails during a card RTS request.

The formats of the MAP failure messages for card RTS requests are

```
Request to RTS ENET Plane: <pl> Shelf: <sh> Slot: <sl>
submitted.

Request to RTS ENET Plane: <pl> Shelf: <sh> Slot: <sl> failed.

Reason: <failed_tests> failed.<cardlist>
```

The <failed_tests> field indicates the specific in-service and/or out-of-service tests that failed. In addition to the existing values for this field, the following reasons are valid for the NT9X40DA:

```
QLC RDAT Interface TestQLC Clock and Frame Test

PB ICM Parity Test

PB Processor Message Test

PB Processor Sanity Test

Internal Loop Around Test

PB ICM Parity Checker Test

PB Processor Self TestQLC Loop Around Test
```

The <cardlist> field is standard for all ENET MAP responses and logs. However, the value NT9X40DA is one of the possible PEC codes for SPM.

Example

These are examples of messages for the NT9X40DA paddleboard.

```
Request to RTS ENET Plane: 0 Shelf: 01 Slot: 11 submitted.

Request to RTS ENET Plane: 0 Shelf: 01 Slot: 11 failed.

Reason: QLC Loop Around Test failed.

Site Flr Rpos Bay_id   Shf Description Slot EqPec

HOST 23   D31 NWSC098  00  ENET:0:01   16   NT9X35CA Front

HOST 23   D31 NWSC098  00  ENET:0:01   16   NT9X40DA Back
```

RTS
en_cardds512

Purpose

The RTS command is used to provide maintenance on fiber links subtending off the enhanced network (ENET) node. The responses support fiber link to the SPM.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

MAP responses

The following are the responses to the command.

> **ATTENTION**
> These responses are for SPM commands only.

Table 4-4 (Sheet 1 of 2)

Response	Explanation and action
Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: Timed out waiting for Completed signal -note that there are many other possible reasons that can be displayed <OR> Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: CRC error detected Problem Type: end to end Suspect card list: Site Flr RPos Bay_id Shf Description Slot EqPEC HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X40DA BACK HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X35BA FRNT HOST 01 A00 ENC 0 0 00 ENET:0:00 08 9X36BA FRNT	The failure responses back from link maintenance are shown. Follow card list replacement procedure if card list is shown.

Table 4-4 (Sheet 2 of 2)

Response	Explanation and action
`No maintainable DS-30 equivalents on this fiber.`	On new fiber links, it is not necessary to maintain the link as DS-30 equivalents.

Example

None

Tst ENETCD9X40DIR

Purpose

The TST command requests a test on an ENET crosspoint slot, card, or paddleboard.

At the CARD level of the MAP, this command may also be applied to P-side links, but this feature impacts only the card test/RTS, not the link test/RTS.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

Parameters

SPM affects <failed tests> and <cardlist> fields.

See “MAP responses."

MAP responses

Failure reasons applicable to the NT9X40DA paddleboard display on the MAP terminal when an in-service or out-of-service paddleboard test fails during a card TST request.

The format of the MAP failure messages for card TST requests are

```
Request to <tstyp> TEST ENET Plane: <pl> Shelf: <sh> Slot: <sl>
submitted.

Request to <tstyp> TEST ENET Plane: <pl> Shelf: <sh> Slot: <sl>
failed.

Reason: <failed_tests> failed.

<cardlist>
```

```
HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X40DA Back
```

The <failed_tests> field indicates the specific in-service and/or out-of-service tests that failed. In addition to the existing values for this field, the following reasons are valid for the NT9X40DA:

```
QLC RDAT Interface TestQLC Clock and Frame Test

PB ICM Parity TestPB Processor Message Test

PB Processor Sanity Test

Internal Loop Around Test

PB ICM Parity Checker Test

PB Processor Self Test

QLC Loop Around Test
```

The <cardlist> field is standard for all ENET MAP responses and logs. However, the value NT9X40DA is one of the possible PEC codes for SPM.

Example

These are examples of messages for the NT9X40DA paddleboard.

```
Request to INSV TEST ENET Plane: 0 Shelf: 01 Slot: 11 submitted.

Request to INSV TEST ENET Plane: 0 Shelf: 01 Slot: 11 failed.

Reason: Internal Loop Around Test Failed

Site Flr Rpos Bay_id   Shf Description Slot EqPec

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X35CA Front
```

Tst en_cardds512

Purpose

The Tst command is used to provide maintenance on fiber links subtending off the enhanced network (ENET) node. The responses support fiber link to the SPM.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

MAP responses

The following are the responses to the command.

> **ATTENTION**
> These responses are for SPM commands only.

Table 4-5 (Sheet 1 of 2)

Response	Explanation and action
Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: Timed out waiting for Completed signal -note that there are many other possible reasons that can be displayed <OR> Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: CRC error detected Problem Type: end to end Suspect card list: Site Flr RPos Bay_id Shf Description Slot EqPEC HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X40DA BACK HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X35BA FRNT HOST 01 A00 ENC 0 0 00 ENET:0:00 08 9X36BA FRNT	The failure responses back from link maintenance are shown. Follow card list replacement procedure if card list is shown.

Table 4-5 (Sheet 2 of 2)

Response	Explanation and action
`No maintainable DS-30 equivalents on this fiber.`	On new fiber links, it is not necessary to maintain the link as DS-30 equivalents.

Example

None

5 ENET MATRIX directory

This chapter describes the syntax, purpose, and semantics of some of the ENETMATRIX commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when you execute the command.

The ENETMATRIX commands are as follows:

- RTS
- Tst

To access the directory

```
>MAPCI;MTC;NET;MATRIX
```

To return to CI

```
>QUIT ALL
```

MATRIX screen

The following figure shows the layout of the MATRIX screen. The screen shows all the available commands at the MATRIX level.

```
CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt  SysB   1IOCOS   5CdPr    3 SPM  1  RS           1 CC   1Crit   DRMPM2
M        M       M      *C*     *C*      *C*            *C*    *C*       *C*

 MATRIX          ENET          System   Matrix   Shelf   0 1 2 3 BLOCKED
 0 Quit            Plane 0        *      Fault           F - - -
 2 Zoom_           Plane 1        *       Istb           F - - -
 3 QueryEN_
 4 LOCATE_       MATRIX      VBUS   PLANE 0      VBUS   PLANE
 5 Deload_                   0 1 2 3 4 5 6 7     0 1 2 3 4 5 6 7
 6 Tst_          HBUS      0  . S . - . S . .     . S F - F S . .
 7 Bsy_                    1  . S . - S S . .     . S F - S S . .
 8 Rts_                    2  - - - - - - - -    - - - - - - - -
 9 Offl_                   3  - - - - - - - -    - - - - - - - -
10                         4  - - - - - - - -    - - - - - - - -
11 RExTst_                 5  - - - - - - - -    - - - - - - - -
12                         6  - - - - - - - -    - - - - - - - -
13                         7  - - - - - - - -    - - - - - - - -
14
15 System
16
17 Shelf_
18 Trnsl_
```

RTS

Purpose

The RTS command requests that an ENET crosspoint slot, card, or paddleboard be returned to service.

At the CARD level of the MAP, this command may also be applied to P-side links, but this feature impacts only the card test/RTS, not the link test/RTS.

Command type

Menu

Command target

SuperNode

Command availability

Res

Parameters

The following is an example of command syntax.

```
RTS : Returns the out-of-service entity to service.

Parms: <Plane>  {0 TO 1}

       <Entity>  {XPT <HBus>  {0 TO 15}

                      <VBus>  {0 TO 7}

                  ALL}

       <Options> ... {FORCE,

                      NOWAIT,

                      NOPROMPT}]
```

MAP responses

SPM affects <failed tests> and <cardlist> fields.

Failure reasons applicable to the NT9X40DA paddleboard displays on the MAP terminal when an in-service or out-of-service paddleboard test fails during a card RTS request.

The formats of the MAP failure messages for card RTS requests are

```
Request to RTS ENET Plane: <pl> Shelf: <sh> Slot: <sl>
submitted.Request to RTS ENET Plane: <pl> Shelf: <sh> Slot: <sl>
failed.Reason: <failed_tests> failed.<cardlist>
```

The <failed_tests> field indicates the specific in-service and/or out-of-service tests that failed. In addition to the existing values for this field, the following reasons are valid for the NT9X40DA:

```
QLC RDAT Interface Test

QLC Clock and Frame Test

PB ICM Parity Test

PB Processor Message Test

PB Processor Sanity Test

Internal Loop Around Test

PB ICM Parity Checker Test

PB Processor Self Test

QLC Loop Around Test
```

The <cardlist> field is standard for all ENET MAP responses and logs. However, the value NT9X40DA is one of the possible PEC codes for SPM.

Example

These are examples of messages for the NT9X40DA paddleboard.

```
Request to RTS ENET Plane: 0 Shelf: 01 Slot: 11 submitted.

Request to RTS ENET Plane: 0 Shelf: 01 Slot: 11 failed.

Reason: QLC Loop Around Test failed.

Site Flr Rpos Bay_id   Shf Description Slot EqPec

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X35CA Front

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X40DA Back
```

Tst

Purpose

The Tst command requests a test on an ENET crosspoint slot, card, or paddleboard.

At the CARD level of the MAP, this command may also be applied to P-side links, but this feature impacts only the card Tst/RTS, not the link Tst/RTS.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
TST : Test the ENET entity.

Parms: <Plane>  {0 TO 1}

       <Entity>  {XPT   <HBus>  {0 TO 15}

                        <VBus>  {0 TO 7},

                  ALL}

      <Options> ...{NOWAIT,

                    NOPROMPT}]
```

Parameters

None

MAP responses

SPM affects <failed tests> and <cardlist> fields.

Failure reasons applicable to the NT9X40DA paddleboard display on the MAP terminal when an in-service or out-of-service paddleboard test fails during a card TST request.

The format of the MAP failure messages for card TST requests are

```
Request to <tstyp> TEST ENET Plane: <pl> Shelf: <sh> Slot: <sl>
submitted.

Request to <tstyp> TEST ENET Plane: <pl> Shelf: <sh> Slot: <sl>
failed.

Reason: <failed_tests> failed.

<cardlist>
```

The <failed_tests> field indicates the specific in-service and/or out-of-service tests that failed. In addition to the existing values for this field, the following reasons are valid for the NT9X40DA:

```
QLC RDAT Interface Test

QLC Clock and Frame Test

PB ICM Parity Test

PB Processor Message Test

PB Processor Sanity Test

Internal Loop Around Test

PB ICM Parity Checker Test

PB Processor Self Test

QLC Loop Around Test
```

The <cardlist> field is standard for all ENET MAP responses and logs. However, the value NT9X40DA is one of the possible PEC codes for SPM.

Example

These are examples of messages for the NT9X40DA paddleboard.

```
Request to INSV TEST ENET Plane: 0 Shelf: 01 Slot: 11 submitted.

Request to INSV TEST ENET Plane: 0 Shelf: 01 Slot: 11 failed.

Reason: Internal Loop Around Test Failed

Site Flr Rpos Bay_id   Shf Description Slot EqPec

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X35CA Front

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X40DA Back
```

6 ENET SHELF directory

This chapter describes the syntax, purpose, and semantics of some of the ENET SHELF commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The ENET SHELF commands are as follows:

- Bsy
- RTS
- Tst

To access the directory

```
>MAPCI;MTC;NET;SHELF <shelf number>
```

This is an example of entering the command:

```
>MAPCI;MTC;NET;SHELF 0
```

To return to CI

```
>QUIT ALL
```

SHELF screen

The following figure shows the layout of the SHELF screen. The screen shows all the available commands at the SHELF level.

```
CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt  SysB   1IOCOS   5CdPr    3 SPM  1  RS           1 CC   1Crit   DRMPM2
M        M       M      *C*     *C*      *C*            *C*    *C*       *C*

 SHELF          ENET          System   Matrix   Shelf   0 1 2 3 BLOCKED
 0 Quit           Plane 0     CSLink   Fault            F - - -
 2                Plane 1     CSLink   Fault            F - - -
 3 QueryEN_
 4 LOCATE_      SHELF 00    SLOT           1111111 111222222  22223333  333333
 5 Deload_                    123456  78  90123456 78901234   56789012  345678
 6 Tst_          PLANE 0      .   .   .F  ..SS..-- --------   .SSS....  .  .
 7 Bsy_          Plane 1      .   .   .F ..SSFF--  --------   FSSS....  .  .
 8 Rts_
 9 Offl_
10
11 RExTst_
12
13
14
15 System
16
17 Shelf_
18 Trnsl_
```

Bsy

Purpose

The Bsy command is used to provide maintenance on fiber links subtending off the enhanced network (ENET) node. The responses support fiber link to the SPM.

Before SP14, to prevent Spectrum Peripheral Module (SPM) computing equipment module (CEM) isolation during ENET maintenance, the user received the following warning when executing the BSY command at the Shelf level:

```
WARNING: This action will be performed on ALL links in ENET
Plane:x that are MBSY, INSV, OFFL, SBSY, CBSY, or PBSY. Please
confirm (“YES", “Y", “NO", or “N"):
```

If the user selected “YES" or “Y," the following warning displayed:

```
WARNING: This action will cause NETWORK BLOCKAGE. Please confirm
(“YES", “Y", “NO", or “N"):
```

With SP14, a second layer of checks is available to prevent isolation of the SPM CEM when user executes the shelf BSY command:

```
WARNING: OPERATION WILL ISOLATE ONE OR MORE NODES FROM THE CM

WARNING: BSY in this link may cause loss of service. Please
confirm (“YES", “Y", “NO", or “N"):
```

The warning ensures that the user know that BSYing the shelf can cause a node to isolate from the computing module (CM).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

Command syntax follows the existing format.

MAP responses

The following are the responses to the command.

ATTENTION
These responses are for SPM commands only.

Table 6-1 (Sheet 1 of 2)

Response	Explanation and action
Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: Timed out waiting for Completed signal -note that there are many other possible reasons that can be displayed <OR> Request to OOS TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 submitted. Request to TEST ENET Plane:0 Shelf:00 Slot:15 Link:00 failed. Reason: CRC error detected Problem Type: end to end Suspect card list: Site Flr RPos Bay_id Shf Description Slot EqPEC HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X40DA BACK HOST 01 A00 ENC 0 0 00 ENET:0:00 15 9X35BA FRNT HOST 01 A00 ENC 0 0 00 ENET:0:00 08 9X36BA FRNT	The failure responses back from link maintenance are shown. Follow card list replacement procedure if card list is shown.

Table 6-1 (Sheet 2 of 2)

Response	Explanation and action
`No maintainable DS-30 equivalents on this fiber.`	On new fiber links, it is not necessary to maintain the link as DS-30 equivalents.

Example

None

ENET restriction

If an ENET pair is taken down, trunks go to CFL state. However, the carrier state does not report this change for OC3, and the ATMCON state does not report this change for ATM.

RTS

Purpose

The RTS command requests that an ENET crosspoint slot, card, or paddleboard be returned to service.

At the CARD level of the MAP, this command may also be applied to P-side links, but this feature impacts only the card test/RTS, not the link test/RTS.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The command syntax follows the existing format.

Parameters

See “MAP responses."

MAP responses

SPM affects <failed tests> and <cardlist> fields.

Failure reasons applicable to the NT9X40DA paddleboard displays on the MAP terminal when an in-service or out-of-service paddleboard test fails during a card RTS request.

The formats of the MAP failure messages for card RTS requests are

```
Request to RTS ENET Plane: <pl> Shelf: <sh> Slot: <sl>
submitted.

Request to RTS ENET Plane: <pl> Shelf: <sh> Slot: <sl> failed.

Reason: <failed_tests> failed.

<cardlist>
```

The <failed_tests> field indicates the specific in-service and/or out-of-service tests that failed. In addition to the existing values for this field, the following reasons are valid for the NT9X40DA:

```
QLC RDAT Interface Test

QLC Clock and Frame Test

PB ICM Parity Test

PB Processor Message Test

PB Processor Sanity Test

Internal Loop Around Test

PB ICM Parity Checker Test

PB Processor Self Test

QLC Loop Around Test
```

The <cardlist> field is standard for all ENET MAP responses and logs. However, the value NT9X40DA is one of the possible PEC codes for SPM.

Example

These are examples of messages for the NT9X40DA paddleboard.

```
Request to RTS ENET Plane: 0 Shelf: 01 Slot: 11 submitted.

Request to RTS ENET Plane: 0 Shelf: 01 Slot: 11 failed.

Reason: QLC Loop Around Test failed.

Site Flr Rpos Bay_id   Shf Description Slot EqPec

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X35CA Front

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X40DA Back
```

Tst

Purpose

The TST command requests a test on an ENET crosspoint slot, card, or paddleboard.

At the CARD level of the MAP, this command may also be applied to P-side links, but this feature impacts only the card test/RTS, not the link test/RTS.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The command syntax follows the existing format.

Parameters

See “MAP responses."

MAP responses

SPM affects <failed tests> and <cardlist> fields.

Failure reasons applicable to the NT9X40DA paddleboard display on the MAP terminal when an in-service or out-of-service paddleboard test fails during a card TST request.

The format of the MAP failure messages for card TST requests are

```
Request to <tstyp> TEST ENET Plane: <pl> Shelf: <sh> Slot: <sl>
submitted.

Request to <tstyp> TEST ENET Plane: <pl> Shelf: <sh> Slot: <sl>
failed.

Reason: <failed_tests> failed.

<cardlist>
```

The <failed_tests> field indicates the specific in-service and/or out-of-service tests that failed. In addition to the existing values for this field, the following reasons are valid for the NT9X40DA:

```
QLC RDAT Interface Test

QLC Clock and Frame Test

PB ICM Parity Test

PB Processor Message Test

PB Processor Sanity Test

Internal Loop Around Test

PB ICM Parity Checker Test

PB Processor Self Test

QLC Loop Around Test
```

The <cardlist> field is standard for all ENET MAP responses and logs. However, the value NT9X40DA is one of the possible PEC codes.

Example

These are examples of messages for the NT9X40DA paddleboard.

```
Request to INSV TEST ENET Plane: 0 Shelf: 01 Slot: 11 submitted.

Request to INSV TEST ENET Plane: 0 Shelf: 01 Slot: 11 failed.

Reason: Internal Loop Around Test Failed

Site Flr Rpos Bay_id   Shf Description Slot EqPec

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X35CA Front

HOST 23  D31  NWSC098  00  ENET:0:01   16   NT9X40DA Back
```

7 PROGDIR directory

This chapter describes the syntax, purpose, and semantics of some of the PROGDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The PROGDIR command is

- SPMECMON

The PROGDIR directory contains the TTP commands associated with the MAPCI position. The descriptions for LO (lockout) and SYSB (system busy) states are different for SPM per-trunk signaling (PTS) trunks, as compared with the digital trunk controller (DTC). The meanings are as follows:

- LO — signaling capability is failing in the SPM
- SYSB
  - — office parameters failed to be downloaded to the SPM
  - — failure to send RTS request to the SPM
  - — failure to receive reply from the SPM
  - — provisioning error in the SPM
  - — internal messaging error in the SPM

To access the directory

To access the directory:

```
>MAPCI;MTC;TRKS;TTP;POST G <CLLI NAME>
```

Note: This command is an example of posting a PTS trunk to display the trunk state.

To return to CI

To return to CI:

```
>QUIT ALL
```

SPMECMON

Purpose

This CI command provides a tool to help determine if the integrated echo canceller's performance is acceptable. The tool is used to request Echo Return Loss (ERL) and Echo Return Loss Enhancement (ERLE) data for an individual channel of an echo canceller equipped Spectrum Periphreal Module (SPM). The tool is also used to request the sum of ERLE and Non-linear Processing Loss (ANLP), and other ECAN related data for an echo canceller under monitoring.

ERL is a measurement of the received energy level in relationship to the transmitted energy level. ERLE is the attenuation of the echo signal caused by the echo canceller (not including the non-linear processor). For this reason, an ERL reading is valid only for an answered call and an ERLE reading has meaning only if the echo canceller is enabled to attenuate the ERL measured signal.

Different methods of echo canceller (EC) performance monitoring invoked by the SPMECMON command are

- immediate, one-time reading of echo canceller performance data

  The immediate read function requests ERL and ERLE readings for the specified trunk from an SPM. The SPM returns the requested data for the specified trunk, if valid, or the reason the requested data was not supplied. SPMECMON outputs the returned ERL/ERLE data to the MAP terminal, along with an evaluation of the quality of performance based on this data. If the data is not returned by the SPM, SPMECMON displays an explanation of why the data was not displayed.

- continuous echo canceller performance monitoring

  — Continuous performance monitoring enables the user to continuously monitor echo canceller performance for the specified trunk or a range of trunk members. For each answered call placed over the monitored trunk, the SPM sends ERL and ERLE data to the computing module (CM). The CM uses the logs system to output an SPM 660 log containing the received data. The CM also has the capability to output to the MAP display, or both log and MAP.

  — Continuous performance monitoring capabilities activated on a specific Resource Module Number (RM#) and Resource Number (RN) on an SPM basis or for a range of RNs for an RM.

  — Capability of disabling continuous echo canceller performance monitoring based on RM number and RN on an SPM basis or for a range of RNs for an RM.

  - — Based on capacity testing, provides the capability of continuously monitoring up to 600 trunk members or 320 echo cancellers (ECANs) at a time.
  - — Status reports that list RM# and RN with continuous echo canceller performance monitoring on an SPM basis.
  - — AUTO commands to enable/disable/query continuous echo canceller performance monitoring.
- shows the current control parameters and current state of the echo canceller

The SPMECMON command provides seven different command formats:

- trunk members based command formats on a range basis for continuous performance monitoring
- per-SPM command formats
- system-wide command formats
- resource module number-based command formats on a range basis for continuous performance monitoring
- resource numbers for an RM-based command formats on a range basis for continuous performance monitoring
- Auto command format
- Help command format

Command formats disable continuous performance monitoring on a per-trunk, per-resource number, per-resource module number, and SPM-wide and system wide resources. Command formats also disable continuous performance monitoring on a range of trunk members or on a range of RNs for an RM. Command formats also have the capability of enabling continuous monitoring on a per-trunk and per-resource basis or on a range of trunk members or a range of RNs for an RM. In addition, they display a list of all continuously monitored trunks and resources on a per-trunk, per-resource, per-resource module, SPM-wide or System-wide basis.

Details of allowed command formats, their parameters, and possible command responses are provided in the following sections.

Note: ECAN dependencies are the tuples in data schema tables SPMECAN, TRKSGRP, and MNCKTPAK. Refer to these tables for detailed information.

Command type

Non-menu

Command target

ECORE and BRISC

Command availability

Res (SPMECMON is a resident command)

Trunk members-based command format on a range basis

Command syntax

The input format is as follows:

```
SPMECMON <trunk clli> <1st trunk#> <last trunk#> <option>
<output>
```

Parameters

The parameters are as follows:

```
<trunk clli>     - string
<trunk num>      - number {0 to 9999}
<option>        - string {READ FULL | ON | OFF | STATUS}
<output>          - string {LOG | MAP | Both}
```

The following table defines the parameters of the trunk-members based command format.

Table 1

Parameter	Value	Description
`trunk_clli`	character string	The CLLI of the trunk to be queried
`1st trunk_num`	integer 0 to 9999	The first CLLI member number of the trunk to be queried
last trunk_num	integer 0 to 9999	The last CLLI member number of the trunk to be queried.
`option`	READ FULL OUTPUT	Provides information about the current control parameters and the state of the ECAN. Also, specifies that immediate query of echo canceller performance data can be reported to the MAP display, SPM 660 log or both. ***Note:*** To generate the current control parameters and the state of the ECAN, specify the option FULL following option READ.
	ON	Enable continuous performance monitoring for specified trunk member.
	OFF	Disable continuous performance monitoring for specified trunk member.
	STATUS	List current continuous performance monitoring state for specified trunk member.
`output`	LOG	Reports the performance data to SPM 660 log.
	MAP	Reports the performance data to the MAP display.
	Both	Reports the performance data to the SPM 660 log and to the MAP display.
Note: The first trunk_num must be less than or equal to the last trunk_num. Also, the difference between the last member number and the first member number must be less than or equal to a 100.		

MAP responses

The response formats for the options shown in the previous table (READ OUTPUT, ON, OFF, STATUS) are described in the following paragraphs.

READ FULL OUTPUT command

The format of output messages at the MAP terminal in response to the "SPMECMON <trunk clli> <trunk num> READ FULL" command may take one of three forms.

The first form is as follows:

```
ECHO CANCELLER INFO REPORT
--------------------------
MON TRK:   <CLLI> <mem#> - SPM <SPM#> carrier <cct_no>
channel <cct_ts> RM: <RM#> RN: <RN#>

ASSOC TRK: <clli> <mem#> SPM <spm#> carrier <cct_no> channel
<cct_ts>

ECAN DATA
 ERL: xx dB  ERLE+ANLP: xx dB   MERL: x dB ACOM: xx dB
 Delay of Loudest Echo Reflection: <rfl_dla>

 Near-End           Far-End
 Talk-time          <ne_act><fe_act>
 Signal level       <ne_lvl><fe_lvl>
 Bckgrnd Noise      <ne_ns><fe_ns>

ECAN CONTROL PARAMETERS
 TONDS    TONMG    TD mode          S56KB    AUTON    NLP
 <Y or N> <Y or N> <G.164 or G.165> <Y or N><Y or N><Y or N>

 NSMAT    LAW            CNVRG    ESTRS    SOS      TDINC
<Y or N> <uLaw or ALaw> <Y or N> <Y or N> <Y or N> <Y or N>

ECAN CURRENT STATE
 DCDET    DCNOW    CVRGD    ENABLE
 <Y or N> <Y or N> <Y or N> <Y or N>

<performance text>
```

Note: ANLP may be 0 if NLP is off.

The first form is the expected response for a READ FULL OUTPUT request. It contains ERL, ERLE, MERL, ERL+ERLE, and an evaluation of echo canceller performance. The assigned SPM number, RM, and RN are provided

to make equipment location easier. The possible text strings associated with this form are explained in the following table.

Table 2 (Sheet 1 of 2)

Response	Explanation
`Speech activity <30 seconds. Performance data not reliable.`	Data is considered reliable when there is at least 30 seconds of far-end speech activity. This is the expected result; no action needed.
`Potential network problem: ERL should be at least MERL.`	The ERL measured by the echo canceller is less than the datafilled MERL. This may indicate a problem within the network. An ERL of at least the datafilled MERL is required for proper cancellation to be maintained. Determine reason ERL is less than MERL and correct the problem. Repeat command to verify results.
`Echo cancellation performance problem, ERLE + ERL < 33dB`	This message is output when speech activity and MERL is within nominal expected ranges, but ERL + ERLE is less than 33 dB. Troubleshoot possible source of echo cancellation problem. Repeat command to verify results.
`Echo canceller performing within expected limites.`	The results of the READ request display on the MAP terminal that originated the request. The requested data is obtained from the SPM. This response displays if the query is successful and the sum of the ERL and ERLE is at least 33 dB. This is the expected result; no action needed.
`<option> is not a valid option.` `Valid option is OUTPUT or FULL`	The option you entered is invalid. The valid input option is FULL. Re-enter the command with a valid option.
`<option> is not a valid option.` `Valid option is OUTPUT`	The option you entered is invalid. The valid input option is OUTPUT. Re-enter the command with a valid option.

Table 2 (Sheet 2 of 2)

Response	Explanation
`Missing command parameter. Correct format is:` `SPMECMON <CLLI><MEM> READ FULL OUTPUT <LOG | MAP | BOTH>`	You did not enter a command paramter. The valid options are <LOG | MAP | BOTH> Re-enter the command with a valid option.
`<option> is not a valid option.` `Valid option is <MAP | LOG | BOTH>`	The option you entered is invalid. The valid input option is <MAP | LOG | BOTH>. Re-enter the command with a valid option.

The second form is as follows:

```
<CLLI> <mem#> - SPM <SPM #> carrier <cct_no> channel <cct_ts>
<text>
```

The second form is presented when performance data returned by the SPM are unavailable. The supplied text explains why the requested data was not available. The possible text strings associated with this form are explained in the following table.

Table 3

Response	Explanation
`Selected trunk member is not involved in a call.` `Request for immediate READ denied`	The specified trunk member is not involved in a call, so the echo canceller is not enabled. The request for ERL/ERLE data is only reasonable if the echo canceller is activated. Wait until the selected trunk member involved is an answered echo canceller enabled call and enter the command again.
`Processing another request for this trunk.`	SPM is processing another request on the specified trunk member. SPM can process only one request on an echo canceller equipped port at a time. This request was second and was rejected. Try the request again after a short delay.
`Data Call Detected`	Echo canceller not enabled on trunk

The third form is as follows:

```
<CLLI> <mem#> - SPM <SPM #> carrier <cct_no> channel <cct_ts>
                RM: <RM#> RN: <RN#>

<text>
```

The third form is presented when performance data returned by the SPM are not available. Unlike the second form, this form provides the RM and RN number of the involved SPM. The supplied text, as shown in the following table, explains why the requested data was not available.

Table 4

Response	Explanation
`Data call detected.`	Data transmission was detected during this call. Echo canceller performance data is not valid, so it is not reported.
`Echo canceller not enabled on selected trunk.`	No echo canceller has been enabled for this trunk. This is the expected response.

READ FULL OUTPUT MAP

The format of output messages at the MAP terminal in response to the SPMECMON <trunk clli> <trunk num> READ FULL OUTPUT MAP command is the same as the SPMECMON <trunk clli> <trunk number> READ FULL command.

READ FULL OUTPUT LOG

The format of output messages at the MAP terminal in response to the SPMECMON <trunk clli> <trunk num> READ FULL OUTPUT LOG command is the same as the SPMECMON <trunk clli> <trunk number> READ FULL command, except that the performance data output is sent to the SPM 660 log.

Table 5

Response	Explanation
`Manual performance monitoring reported on SPM660 log.`	This text is printed on the MAP terminal to indicate that the performance data was sent to the SPM660 log.

READ FULL OUTPUT Both

The format of output messages at the MAP terminal in response to the SPMECMON <trunk clli> <trunk number> READ FULL OUTPUT Both command is the same as the SPMECMON <trunk clli> <trunk number>

READ FULL command, except that the the performance data output is sent to the MAP and the SPM 660 log.

ON command

The format of output messages displayed at the MAP terminal in response to the “SPMECMON <trunk_clli> <1st trunk_num> <last trunk_num>ON <OUTPUT> <output>" command is presented using the following format.

Command syntax

The input format is as follows:

```
SPMECMON <trunk_clli> <1st trunk_num> <last trunk_num> ON
OUTPUT <output>
```

Parameters

The parameters are as follows:

```
<trunk_clli>     - string {0 to 63}
<trunk_num>     - trunk member number {0 to 9999}
<output>          - string {LOG | MAP | Both}
```

The following table defines the parameters of the trunk-members command format.

Table 6

Parameter	Value	Description
`trunk_clli`	character string	The clli of the trunk to be queried.
`1st trunk_num`	integer 0 to 9999	The first CLLI member number of the trunk to be queried.
last trunk_num	integer 0 to 9999	The last CLLI member number of the trunk to be queried.
`output`	LOG	Reports the performance data to SPM 660 log.
	MAP	Reports the performance data to the MAP display.
	Both	Reports the performance data to the SPM 660 log and to the MAP display.

Note: The first trunk_num must be less than or equal to the last trunk_num. Also, the difference between the last member number and the first member number must be less than or equal to a 100.

This form is the expected response for an ON request. The possible text strings associated with this form are described in the following table.

Table 7

Response	Explanation
`Already monitoring specified trunk member <trunk_num>.` `No action taken.`	Continuous performance monitoring is already active on the specified trunk member. Verify that the correct trunk member was entered in the request. If not, enter the correct trunk member. Otherwise, do nothing.
`Continuous monitoring enabled on trunk member <trunk_num>.`	A request to continuously monitor the echo canceller performance for the specified trunk member was successfully processed. The specified trunk member was not currently involved in a call. This is the expected response; no action required.
`Maximum limit exceeded.` `No action taken.`	A request to continuously monitor the echo canceller performance for the specified trunk member cannot be processed because the maximum number of continuously monitored trunk members is limited to 100. No action required.
`Range specified exceeds 100.` `Command aborted.`	A request to continuously monitor echo canceller performance for the range of trunk members cannot be processed because the maximum number of continuously monitored trunk member is limited. Verify the 1st trunk member and the last trunk member you entered. If the range exceeds the limit, modify the command and re-enter the trunk members.

OFF command

The format of output messages displayed at the MAP terminal in response to “SPMECMON <trunk_clli> <1st trunk#> <last trunk#> OFF" command is presented using the following form.

Command syntax

The input format is as follows:

```
SPMECMON <trunk_clli> <1st trunk_num> <last trunk_num> OFF
```

This form is the expected response for an OFF request. The possible text strings associated with this form are described in the following table.

Table 8

Response	Explanation
`Continuous monitoring not active on specified trunk member.` `No action taken.`	User attempted to cancel continuous performance monitoring on a trunk member that was not being continuously monitored. Verify the entered trunk member is one desired. Enter the corrected command or do nothing.
`Continuous monitoring disabled.`	Request to disable continuous monitoring of echo canceller performance was successfully processed for the specified trunk. This is the expected response.

STATUS command

The format of output messages displayed at the MAP terminal in response to “SPMECMON <trunk_clli> <trunk_num> STATUS" command are presented using the following form.

```
<CLLI> <mem#> - SPM <SPM#> carrier <cct_no> channel <cct_ts>

<text>
```

This is the form of the expected response for a STATUS request. The possible text strings associated with this form are described in the following table.

Table 9

Response	Explanation
`Continuous monitoring active.`	Status request entered for a trunk member that is being monitored.
`Continuous monitoring not active.`	Status request entered for a trunk member that is not being monitored.

Error responses for trunk-members based command

There are various messages output to the MAP terminal in response to invalid or missing SPMECMON command parameters. This section provides an explanation of each of these error responses.

Table 10 (Sheet 1 of 3)

Error message	Explanation
`<CLLI> is not a valid trunk group CLLI.`	The trunk group CLLI specified in the SPMECMON command is not valid. This error message is displayed whenever an incomplete trunk CLLI of more than six characters in length is entered. A partial CLLI of six characters is processed as a short CLLI. Determine correct CLLI for desired trunk and reissue the command.
`<trunk_num> is not a valid trunk number.`	The second parameter entered was a number larger than 9999. The valid range for CLLI trunk group member numbers is 0 to 9999. This is also displayed when the second parameter entered was not an integer. Enter the command again ensuring that the second input parameter is a valid CLLI group member number.

`Missing command parameter. Correct format is:`
 	
`SPMECMON <CLLI> <number> <ON|OFF|READ|STATUS> <output>.`
	The SPMECMON CI command format requires four parameters to perform.
	
	Re-enter the command again with the correct number of input parameters.

`Missing command parameter. Correct format is:`
 	
`SPMECMON <CLLI> <number> <ON> <OUTPUT> <output>.`
	The output device was left out of the command.
	
	Re-enter the command again with the correct output device.

`<output> is not a valid device.`
 	
`Valid devices are MAP, LOG, or BOTH.`
	User entered a invalid output device.
	
	Re-enter the command again with a valid output device.

`<string> is not a valid option.`
 	
`Valid options are ON, OFF, READ, or STATUS.`
	An invalid CLLI-based command option was entered. The valid command options for a CLLI-based command are ON, OFF, READ, or STATUS.
	
	Enter the command again with a valid command option.

Table 10 (Sheet 2 of 3)

Error message	Explanation
`Timed out while waiting for response from SPM <#>.`	No response or a late response received from the SPM. The SPMECMON CI waits ten seconds for the SPM reply before issuing this response. Possible reasons for the time-out could be because of high call-processing requirements on either the CM or SPM. Try the command again. Verify that the destination SPM is functional.
`Specified trunk member does not exist.`	The trunk member specified in the SPMECMON command does not exist in table TRKMEM. Determine correct trunk member number and enter the SPMECMON command again.
`Trunk member not datafilled for internal echo cancellation.`	The specified trunk member is not set for internal echo cancellation. Verify input CLLI and CLLI member number. If correct, verify table TRKSGRP option SPMECIDX is datafilled with a valid index. Correct the datafill for specified trunk group as required. Enter the SPMECMON command again with correct parameters.
`Trunk member not assigned to an SPM.`	The specified trunk member is not assigned to the SPM. Only SPMs are supported by the SPMECMON CI command. Verify input CLLI and CLLI trunk member number. If correct verify that specified trunk member is assigned to the SPM. Correct datafill for specified trunk group as required. Enter the SPMECMON command with the correct parameters.
`Echo canceller resources are not datafilled for the SPM associated with the specified trunk member.`	The datafill for the SPM associated with the entered trunk member does not include ECAN resources. Verify datafill for the SPM assigned to desired trunk group, if appropriate. Enter the SPMECMON command again with correct parameters.

Table 10 (Sheet 3 of 3)

Error message	Explanation
`Check service state of target equipment.` `Try again when all related equipment in-service.`	SPMECMON commands need to retrieve data for the specified trunk member and require that all equipment necessary for communication with the appropriate SPM be in-service. This error message is output if any of the related equipment is out-of-service. Verify that all equipment is in-service. Restore all associated equipment that is not in-service before re-attempting the command. Notify ETAS of problem if all required equipment is already in-service.
`Invalid command format`	Command format is: SPMECMON <trunk clli> <trunk num> READ OUTPUT <output>, where output = MAP, LOG, or Both. Re-enter command with the correct number of input parameters.
`Second trunk num should be equal to or larger than first trunk num.`	The first trunk number you entered in the command is less than the second trunk number.

Per-SPM command format

Command syntax

The input format is as follows:

```
SPMECMON <SPM #> <option>
```

Parameters

The parameters are as follows:

```
<SPM #>  - {0 TO 63}
<option> - {OFF | STATUS}
```

The following table defines the per-SPM command format parameters.

Table 11 (Sheet 1 of 2)

Parameter	Value	Description
`SPM #`	integer 0 to 63	Destination SPM number

Table 11 (Sheet 2 of 2)

Parameter	Value	Description
option	OFF	Disable continuous performance monitoring for all trunk members on the specified SPM
	STATUS	List trunk members assigned to the specified SPM with continuous performance monitoring active

MAP responses

The response formats for the two options shown in the previous table (OFF and STATUS) are described in the following paragraphs.

OFF command

The SPM-based command format provides two options.

The first option allows the user to disable continuous performance monitoring for all trunk members assigned to the specified SPM. The user is asked to confirm the request before the command is processed.

The second command option lists all trunks with continuous performance monitoring active on the specified SPM.

For “SPM-based OFF request response — confirmed," the command is as follows:

```
SPMECMON <SPM num> OFF
```

Table 12

Response	Explanation

`This will disable continuous monitoring on SPM <#>. Do you wish to continue? (YES, Y, NO, or N):`
`Yes`
`Continuous monitoring disabled for SPM <SPM num>.`
	Request to disable continuous monitoring for all trunk members on the specified SPM is successfully processed.

`This will disable continuous monitoring on SPM <#>. Do you wish to continue? (YES, Y, NO, or N):`
`Yes`
`Continuous monitoring not active for SPM <SPM num>.`
	A request to disable continuous monitoring was sent to the specified SPM that has already been disabled.

For “SPM-based OFF request response — not confirmed," the command is as follows:

```
SPMECMON <SPM num> OFF
```

Table 13

Response	Explanation

`This will disable continuous monitoring on SPM <#>. Do you wish to continue? (YES, Y, NO, or N):`
`No`
`Command aborted.`
	Disable continuous monitoring for all trunk members on the specified SPM aborted at user request. No action taken.

STATUS command

The command is as follows:

```
SPMECMON <SPM num> STATUS
```

Table 14 (Sheet 1 of 2)

Response	Explanation
Continuous monitoring active on the following trunks: <CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts> <CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts> <CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts> Continuous monitoring active on the following ECAN resources: SPM <SPM#> RM: <RM#> RN: <RN#> SPM <SPM#> RM: <RM#> RN: <RN#>	The respose contains a list of all trunk members and echo canceller (ECAN) resources with continuous performance monitoring active on the specified SPM.
No trunks are being monitored on SPM <#>. No ECAN resources are being monitored on SPM <#>.	The response contains a list of all trunk members and ECAN resources with continuous performance monitoring active. This response is sent to the requesting MAP terminal when zero trunk members or ECAN resources are being monitored.

Table 14 (Sheet 2 of 2)

Response	Explanation

`Continuous monitoring active on the following trunks:`
 	
`<CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts>`
`<CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts>`
`<CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts>`
 	
`No ECAN resources are being monitored on SPM <#>.`
	The response contains a list of all trunk members and ECAN resources with continuous performance monitoring active. This response is sent to the requesting MAP terminal when monitoring is enabled for trunk members only.

`Continuous monitoring active on the following ECAN resources:`
 	
`SPM <SPM#> RM: <RM#> RN: <RN#>`
`SPM <SPM#> RM: <RM#> RN: <RN#>`
 	
`No trunks are being monitored on SPM <#>.`
	The response contains a list of all trunk members and ECAN resources with continuous performance monitoring active. This response is sent to the requesting MAP terminal when monitoring is enabled for ECAN resources only.

Error responses for SPM-based command

There are certain failure conditions that are unique to SPM-based SPMECMON commands. The responses returned for each failure condition detected is described in the following table.

Table 15 (Sheet 1 of 2)

Response	Explanation
`SPM <num> not equipped.`	The specified SPM is not equipped. Equip specified SPM or determine proper SPM number before entering command again.
`No echo cancellers equipped on SPM <num>.`	The SPM specified is not equipped with echo cancellers. Verify that at least one echo canceller resource is equipped in the specified SPM. If hardware is present, verify datafill.

Table 15 (Sheet 2 of 2)

Response	Explanation
`SPM <num> not in-service.`	The specified SPM is not in-service. Restore specified SPM and enter the command again.
`Missing command parameter. Correct format is: SPMECMON <SPM num> <OFF | STATUS>.`	The second parameter was not entered. Both SPM number and command option parameters are needed for SPM-based commands. Enter the command again with all required command parameters.
`<string> is not a valid option.` `Valid options are OFF and STATUS.`	An invalid SPM-based command option was entered. The only valid options are OFF and STATUS. Enter the command again with valid command parameter.

System-wide command format

Command syntax

The input format is as follows:

```
SPMECMON <option>
```

Parameters

The parameters are as follows:

```
<option>     - String {OFF | STATUS}
```

The following table defines the system-wide command format parameters.

Table 16

Parameter	Value	Description
`option`	OFF	Disable continuous performance monitoring for all trunk members assigned to echo canceller equipped SPMs
	STATUS	List all trunk members on system associated with echo canceller equipped SPMs for which continuous performance monitoring is active

MAP responses

The response formats for the two options shown in the previous table (OFF and STATUS) are described in the following paragraphs.

STATUS command

This command format allows the user to list all trunk members with continuous performance monitoring enabled or to disable continuous performance monitoring system-wide. The user is asked to confirm the request before the disable request is processed.

For the “system-based STATUS request response," the command is as follows:

```
SPMECMON STATUS
```

Table 17

Response	Explanation
Continuous monitoring active on the following trunks: <CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts> <CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts> <CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts> Continuous monitoring active on the following ECAN resources: SPM <SPM#> RM: <RM#> RN: <RN#> SPM <SPM#> RM: <RM#> RN: <RN#> SPMECMON STATUS command complete.	Successful response for listing all trunks and echo canceller (ECAN) resources with continuous performance monitoring active. The display order of the generated output is on SPM, RM, RN basis.

For the “system-based STATUS request response — no trunks or ECAN resources being monitored," the command is as follows:

```
SPMECMON STATUS
```

Table 18

Response	Explanation
`Continuous monitoring not active on any trunk members.` `Continuous monitoring not active on any ECAN resource.`	Successful response to a request to list all trunk members and ECAN resources with continuous performance monitoring active; in this case, there are zero trunk members or ECAN resources being monitored.

For the “system-based STATUS request response — Continuous monitoring enabled for trunk members only," the command is as follows:

```
SPMECMON STATUS
```

Table 19

Response	Explanation
Continuous monitoring active on the following trunks: `<CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts>` `<CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts>` `<CLLI> <mem> - SPM <SPM #> carrier <cct_no> channel <cct_ts>` Continuous monitoring not active on any ECAN resource.	Successful response for listing all trunks and echo canceller (ECAN) resources with continuous performance monitoring active; in this case, it is only enabled for the trunks listed. The display order of the generated output is on SPM, RM, RN basis.

For the “system-based STATUS request response — Continuous monitoring enabled for ECAN resources only," the command is as follows:

```
SPMECMON STATUS
```

Table 20

Response	Explanation
Continuous monitoring active on the ECAN resource: SPM <SPM#> RM: <RM#> RN: <RN#> SPM <SPM#> RM: <RM#> RN: <RN#> Continuous monitoring not active on any trunk members.	Successful response for listing all trunks and echo canceller (ECAN) resources with continuous performance monitoring active; in this case, it is only enabled for the ECAN resources listed. The display order of the generated output is on SPM, RM, RN basis.

OFF command

For the “system-based OFF request response — confirmed," the command is as follows:

```
SPMECMON OFF
```

Table 21

Response	Explanation
This will disable all echo canceller performance monitoring. Do you wish to continue? (YES, Y, NO, or N): Yes SPMECMON OFF command started. Continuous monitoring disabled - SPM <num> Continuous monitoring disabled - SPM <num> Continuous monitoring disabled - SPM <num> Continuous monitoring disabled - SPM <num> SPMECMON OFF command completed.	Successful response to a request to disable all continuous performance monitoring on the system.

For the “System-based OFF request response — not confirmed," the command is as follows:

```
SPMECMON OFF
```

Table 22

Response	Explanation
This will disable all echo canceller performance monitoring. Do you wish to continue? (YES, Y, NO, or N): No Command aborted.	Response to a user aborted request to disable all continuous performance monitoring on the system. No action taken.

For the “System-based OFF request response — no monitoring," the command is as follows:

```
SPMECMON OFF
```

Table 23

Response	Explanation
`Continuous monitoring not active.`	Successful response for listing all trunks with continuous performance monitoring active. The display order of the generated output is on SPM, RM, RN basis.

Error responses for system-based command

There are certain failure conditions that are unique to system based SPMECMON commands. This section explains the responses returned for each failure condition detected.

Table 24

Response	Explanation
Not in-service, not processed - SPM <num>.	An out of-service SPM was encountered by the SPMECMON CI process while trying to process the disable all continuous monitoring request. The SPMECMON CI outputs this message and continues the process. Restore the SPM to an in-service state and enter command if desired again.
Command acknowledgment time-out. Command failed for SPM <num>.	A response to an SPM request was not received with-in the expected time. The SPMECMON CI outputs this message and continues the process. Enter the command again. Notify ETAS if the problem persists.
Echo cancellers not equipped - SPM <num>	an SPM that was equiped with echo cancellers was encountered by the SPMECMON CI process while trying to process the disable all continuous monitoring request. The SPMECMON CI outputs this message and continues processing. No action required.

Per Resource Module (RM) command formats

Command syntax

The input format is as follows:

```
SPMECMON <SPM#> <RM#> <1st RN><last RN> <option> <output>
```

Parameters

The parameters are as follows:

```
<SPM#>       - {0 to 63}
<RM#>        - {0 to 24}
<option>     - String {OFF | STATUS}
```

The following table defines the per RM and RN command format parameters.

Table 25

Parameter	Value	Description
SPM #	0 to 63	Destination SPM number.
RM #	1 to 28, exclude 7-10	Destination RM number. RM 7-10 are reserved for CEMs and OC3s.
1st RN #	0 to 367	Destination first RN number.1st RN# must be less than or equal to last RN#.
last RN #	0 to 367	Destination last RN number.
option	OFF	Disables continuous performance monitoring for all resources on the specified RM for a specified SPM
	STATUS	Lists resources assigned to the specified RM for a specified SPM with continuous performance monitoring active.
output	LOG	Reports the performance data to SPM 660 log.
	MAP	Reports the performance data to the MAP display.
	Both	Reports the performance data to the SPM 660 log and to the MAP display.
Note: The first RN must be less than or equal to the last RN.		

The following sections contain map responses for RM-based commands.

MAP responses for RM-based commands

The response formats for the two options shown in the previous table (OFF, ON, STATUS) are described in the following paragraphs.

The RM-based command format provides two options. The first option allows the user to diable continuous performance monitoring for all resources assigned to the specified resource module and SPM. The user is asked to confirm the request before the command is processed.

The second command option lists all resources on the specified resource module, for which the continuous performance monitoring is turned ON

OFF command

For the “RM-based OFF request response — confirmed," the command is as follows:

```
SPMECMON <SPM num> <RM num> OFF
```

Table 26

Response	Explanation

`This will disable continuous monitoring on SPM <#> and <RM#>.`
`Do you wish to continue? (“YES", “Y", “NO", “N"):`
`Y`
	Request to disable continuous monitoring for all resource numbers on the selected SPM and RM is successfully processed.

`Continuous monitoring disabled for SPM <SPM num> RM <RM num>.`	Enter “Y" or “YES" when prompted.

For the “RM-based OFF request response — not confirmed," the command is as follows:

```
SPMECMON <SPM num> <RM num> OFF
```

Table 27

Response	Explanation

`This will disable continuous monitoring on SPM <#> and <RM#>.`
`Do you wish to continue? (“YES", “Y", “NO", “N"):`
`N`
	Request to disable continuous monitoring for all resource numbers on the selected SPM and RM is aborted at user request.

`Command aborted.`	Enter “N" or “NO" when prompted.

For the “RM-based OFF request response — without monitored resources," the command is as follows:

```
SPMECMON <SPM num> <RM num> OFF
```

Table 28

Response	Explanation

`This will disable continuous monitoring on SPM <#> and <RM#>.`
`Do you wish to continue? (“YES", “Y", “NO", “N"):`
`Y`
`Command aborted.`
`Continuous monitoring not active on specified resource module. No action taken.`
	Request to disable continuous monitoring for all resource numbers on the selected SPM and RM is not processed, because no resources are being monitored on the specified SPM and RM.
	Enter “Y" or “YES" when prompted.

STATUS command

For the “RM-based STATUS request response — with monitored resources," the command is as follows:

```
SPMECMON <SPM num> <RM num> STATUS
```

Table 29

Response	Explanation

`Continuous monitoring active on the following resources:`
 	
`SPM <SPM#> RM: <RM#> RN: <RN#>`
`SPM <SPM#> RM: <RM#> RN: <RN#>`
 	
`Continuous monitoring not active on any trunk members.`
	This response contains a list of all resources with continuous performance monitoring active on the specified RM and SPM.

For the “RM-based STATUS request response — without monitored resources," the command is as follows:

```
SPMECMON <SPM num> <RM num> STATUS
```

Table 30

Response	Explanation
`No resources are being monitored on SPM <SPM#> RM <RM#>.`	This response is sent to the MAP terminal when no resources are being monitored.

Error responses for RM-based command

There are certain failure conditions that are unique to RM-based SPMECMON commands. This section explains the responses returned for each failure condition detected.

Table 31 (Sheet 1 of 2)

Response	Explanation
`No echo cancellers equipped on SPM <num>.`	The SPM is not equipped with echo cancellers. Verify that at least one echo canceller resource is equipped in the specified SPM. If hardware is present, verify datafill.
`Echo canceller resources are not datafilled for the SPM.`	The voice service processor (VSP) is not datafilled with echo canceller resources. Verify that at least one echo canceller resource is datafilled in the specified VSP.
`SPM <num> not in-service`	Specified SPM is not in-service. Restore to service SPM and re-enter command.
`Missing command parameter. Correct format is: SPMECMON <SPM num> <RM#> <OFF|STATUS>`	The second parameter was missing. The SPM number, RM number and command option parameters are needed for RM-based commands. Re-enter command with all required command parameters.

Table 31 (Sheet 2 of 2)

Response	Explanation
`<string> is not a valid option.` `Valid options are OFF and STATUS`	An invalid RM-based command option was entered. The only valid options are OFF and STATUS. Re-enter command with valid command parameter.
`<RM#> is not a valid VSP-RM ID` `Re-enter query with a valid RM ID.`	A request to disable monitoring or display the status for an RM that is not a voice service processor (VSP) RM. Re-enter command with a valid VSP RM number.
`Processing another request for this resource module.`	This response occurs if two commands are executed simultaneously on the same resource module. Re-enter the command later.

Resource Module (RM) and Resource Number (RN) command formats on a range basis

Command syntax

The input format is as follows:

```
SPMECMON <SPM#> <RM#> <1st RN#><last RN#> <option><output>
where option = <ON|OFF|STATUS>
      output = <LOG|MAP|BOTH>
```

Parameters

The parameters are as follows:

```
<SPM#>       - {0 to 63}
<RM#> - {1 to 28, exclude 7-10 (reserved for CEMs and OC3}
<1st RN#> - {0 to 367}
<last RN#> = {0 to 367}
<option> - {ON | OFF | STATUS}
<option> - String {LOG | MAP | BOTH}
```

The following table defines the per RM and RN command format parameters.

Table 32

Parameter	Value	Description
SPM #	0 to 63	Destination SPM number.
RM #	1 to 28, exclude 7-10	Destination RM number. RM 7-10 are reserved for CEMs and OC3s.
1ST RN #	0 to 367	Destination RN number.
last RN #	0 to 367	Destination RN number.
option	ON	Enable continuous performance monitoring for a range of RNs for a specified RM.
	OFF	Disable continuous performance monitoring for a range of RNs for a specified RM.
	STATUS	List current continuous performance monitoring state for a range of RNs for a specified RM.
output	LOG	Reports the performance data to SPM 660 log.
	MAP	Reports the performance data to the MAP display.
	BOTH	Reports the performance data to the SPM 660 log and to the MAP display.

MAP responses for RM-RN-based commands

The RM-RN-based command format provides three options. The first option allows the user to enable continuous performance monitoring.

The second option allows the user to disable continuous performance monitoring for a resource specified by resource module and resource number for a specified SPM.

The third command option lists the status of a resource specified by RM#-RN#.

ON command

For the “RM-based ON request response," the command is as follows:

```
SPMECMON <SPM#> <RM#>: <1st RN#> <last RN#> ON OUTPUT
<output>
```

The following are the possible output messages displayed at the MAP terminal in response to the ON command.

Table 33

Response	Explanation
SPM <spm#> RM: <rm#> RN: <rn#> Already monitoring specified resource. No action taken	Continuous performance monitoring is already active on the specified RM-RN number. Verify that you entered the correct RM-RN number in the request. If not, enter the correct RM-RN number. Otherwise, no action required.
SPM <spm#> RM: <rm#> RN: <rn#> Continuous monitoring enabled on the resource.	The SPM successfully processed a request to continuously monitor echo canceller performance for the specified RM-RN number. No user action required.
Maximum number of monitored ECAN resources exceeded. No action taken.	The SPM was unable to process the request to continuously monitor the echo canceller performance for the specified RM-RN number, because the maximum number of continuously monitored resources is limited to 100. No user action required.
Range specified exceeds 100. Command aborted.	The SPM was unable to process the request to continuously monitor echo canceller performance for the range of RNs because the maximum number of continuously monitored RM numbers and RNs are limited.

For the “RM-RN-based OFF request response," the command is as follows:

```
SPMECMON <SPM#> <RM#> <RN#> OFF
```

Table 34

Response	Explanation
`Continuous monitoring not active on specified resource number.` `No action taken.`	User attempted to cancel continuous performance monitoring on a resource number that was not being continuously monitored. Verify entered resource number is correct. Re-enter corrected command or leave alone.
`Continuous monitoring disabled on the resource.`	The SPM successfully processed a request to disable continuous monitoring of echo canceller performance for the specified RM-RN number. No user action required.

For the “RM-RN based STATUS request response," the command is as follows:

```
SPMECMON <SPM#> <RM#> <RN#> STATUS
```

Table 35 (Sheet 1 of 2)

`Continuous monitoring not active on specified resource number.`	The status request entered for a resource number is the first command entered, before issuing any other command. Issue status command after issuing another command.

Table 35 (Sheet 2 of 2)

`Continuous monitoring active.`	Status request entered for a resource number that is being monitored. No user action required.
`Continuous monitoring not active.`	Status request entered for a resource number that is not being monitored. No user action required.

Error responses for RM-RN-based commands

There are certain failure conditions that are unique to RM-RN-based SPMECMON commands. This section explains the responses returned for each failure condition detected.

Table 36 (Sheet 1 of 3)

Response	Explanation
`No echo cancellers equipped on SPM <num>.`	The SPM is not equipped with echo cancellers. Verify that at least one echo canceller resource is equipped in the specified SPM. If hardware is present, verify datafill.
`Echo canceller resources are not datafilled for the SPM.`	The voice service processor (VSP) is not datafilled with echo canceller resources. Verify that at least one echo canceller resource is datafilled in the specified VSP.
`SPM <num> not in-service`	Specified SPM is not in-service. Restore to service SPM and re-enter command.
`<RN num> is not a valid Resource Number.`	The resource number is out of range. Re-enter command ensuring that the input parameter is a valid RN#.

Table 36 (Sheet 2 of 3)

Response	Explanation
`Invalid resource number.`	The resource number is within range but is an invalid resource for the specified resource module. Re-enter command ensuring that the input parameter is a valid RN#.
`<RM num> is not a valid VSP-RM ID.` `Re enter query with a valid RM ID.`	This is a request to continuously monitor the echo canceller performance on a resouce module that is not a voice signalling processor (VSP) RM. Re-enter command with a valid VSP RM#.
`Missing command parameter. Correct format is: SPMECMON <SPM num> <RM#> <RN#> <ON|OUTPUT|STATUS>.`	The SPMECMON CI command RM-RN format requires four parameters consisting of SPM#, RM#, RN#, and function to perform. The values for the third parameter are ON, OFF, or STATUS. Re-enter command with the required number of command parameters.
`Missing command parameter. Correct format is: SPMECMON <SPM num> <RM#> <RN#> <ON> <OUTPUT> <output>.`	The SPMECMON CI command requires you to specify the output device after the OUTPUT option. Re-enter command with the required number of command parameters.
`<string> is not a valid option.` `Valid options are ON, OFF or STATUS.`	An invalid RM-RN-based command option was entered. The only valid options are ON, OFF or STATUS. Re-enter command with a valid command option.
`<output> is not a valid device.` `Valid devices are MAP, LOG, or BOTH.`	An invalid RM-RN-based command output device was entered. Re-enter command with a valid output device.

Table 36 (Sheet 3 of 3)

Response	Explanation
`Timed out while waiting for a response from SPM <#>.`	Lack of response or late response from the SPM. The SPMECMON CI waits ten seconds for the SPM reply before issuing htis response. Possible reasons for the time-out could be high call-processing requirements on either CM or SPM. Try the command again. Verify that the destination is functional.

`Check service state of target equipment.`
 	
`Try again when all related equipment in-service.`
	For the SPM to retrieve data from the specified resource, it requires that all equipment necessary for communication with the appropriate SPM be in-service. This error message is displayed if any of the related equipment is out-of-service.
	
	Verify that all equipment is in-service. Restore all associated equipment that is not in-service and re-enter the command. Notify ETAS of problem if all required equipment is already in-service.

`Processing another request for this resource module.`	This response occurs if two commands are executed simultaneously on the same resource module. Re-enter the command later.
`Second RN should be greater than or equal to the first RN.`	The first RN you entered in the command is less than the second RN. Re-enter the command with the correct sequence.

AUTO command formats

Command syntax

The input format is as follows:

```
SPMECMON AUTO <input>
```

Parameters

```
<option>     - String {ON|OFF|TABLE|STATUS}
```

MAP responses for RM-RN-based commands

AUTO command

The following are the possible output messages displayed at the MAP terminal in response to the SPMECMON AUTO command.

For the “SPMECMON AUTO ON response," the command is as follows:

```
SPMECMON AUTO ON
```

Table 37

Response	Explanation
Automatic monitoring is already ON for SPM <SPM #>. No action taken.	Automatic performance monitoring is already on. No user action required.
Automatic monitoring enabled for SPM <SPM #>.	The SPM successfuly processed a request to automatically monitor the echo canceller performance. No user action required.

For the “SPMECMON AUTO OFF response," the command is as follows:

```
SPMECMON AUTO OFF
```

Table 38

Response	Explanation
`Automatic monitoring is NOT ON for SPM <SPM #>.` `No action taken.`	Automatic performance monitoring is already in OFF mode No user action required.
`Automatic monitoring disabled for SPM <SPM #>.`	The SPM successfully processed the request to disable the automatic monitoring of echo canceller performance. No user action required.

For the “SPMECMON AUTO TABLE response," the command is as follows:

```
SPMECMON AUTO TABLE
```

Table 39

Response	Explanation
`Automatic monitoring is already in TABLE mode for SPM <SPM #>.` `No action taken.`	Automatic performance monitoring is already in TABLE mode. No user action required.
`Automatic monitoring is now in TABLE mode for SPM <spm#>.`	The SPM successfully processed a request to begin automatic monitoring of echo canceller performance based on datafill in table SPMECAN. No user action required.

For the “SPMECMON AUTO STATUS response," the command is as follows:

```
SPMECMON AUTO STATUS
```

Table 40

Response	Explanation
`Automatic monitoring is in <text> mode for SPM <SPM #>`	<text> = “ON", “OFF", or “TABLE". No user action required.

Error responses for AUTO command

There are certain failure conditions that are unique to AUTO SPMECMON commands. This section explains the responses returned for each failure condition detected.

Table 41

Response	Explanation
`Missing command parameter. Correct format is: SPMECMON AUTO <input>`	The SPMECMON AUTO command requires input. The valid input is ON, OFF, TABLE, ACCESS Re-enter command with correct input parameters.
`<input> is not a valid option.` `Valid options are ON, OFF, TABLE, or STATUS.`	User entered an invalid input. The input options are ON, OFF, TABLE, or STATUS. Re-enter command with a valid input option.
`Timed out while waiting for response from SPM <SPM #>.`	Lack of response or late response received from SPM. the SPMECMON CI waits ten seconds for the SPM reply before issuing this response. Possible reasons for the time-out could be high call-processing requirements on the CM or SPM. Try command again. Verify that at least one SPM is functional.

Help command format

Command syntax

The input format is as follows:

```
HELP SPMECMON
```

The output is as follows:

```
SPMECMON: Report Echo Canceller ERL and ERLE.
```

Parameters

The command formats are as follows:

```
SPMECMON <OFF | STATUS>
SPMECMON <AUTO> <ON | OFF | TABLE | STATUS>
SPMECMON <PM Number> <OFF | STATUS>
SPMECMON <PM Number> <RM Number> <OFF | STATUS>
SPMECMON <PM Number> <RM Number> <RN Number> <ON | OFF | STATUS>
SPMECMON <PM Number> <RM Number> <RN Number> ON OUTPUT <MAP |
LOG | BOTH>
SPMECMON <PM Number> <RM Number> <1st RN Number> <last RN
Number> <ON | OFF>
SPMECMON <PM Number> <RM Number> <1st RN Number> <last RN
Number> ON OUTPUT <MAP | LOG | BOTH>
SPMECMON <trunk_clli> <trunk_num> <ON | OFF | READ | STATUS>
SPMECMON <trunk_clli> <trunk_num> ON OUTPUT <MAP | LOG | BOTH>
SPMECMON <trunk_clli> <trunk_num> READ OUTPUT <MAP | LOG | BOTH>
SPMECMON <trunk_clli> <trunk_num> READ FULL
SPMECMON <trunk_clli> <trunk_num> READ FULL OUTPUT <MAP | LOG |
BOTH>
SPMECMON <trunk_clli> <1st trunk_num> <last trunk_num> <ON |
OFF>
SPMECMON <trunk_clli> <1st trunk_num> <last trunk_num> ON
OUTPUT <MAP | LOG | BOTH>
```

The parameters are as follows:

```
Parms: <Parm_1> {0 TO 63, STRING}
       [<Parm_2> {0 TO 32767, STRING}]
       [<Parm_3> {0 TO 32767,STRING}]
       [<Parm_4> {0 TO 32767, STRING}]
       [<Parm_5> STRING]
       [<Parm_6> STRING]
       [<Parm_7> STRING]
```

MAP responses

The following table explains each of the fields in the response forms.

Table 42 (Sheet 1 of 2)

Response field	Explanation
<CLLI>	Trunk group to which displayed data applies
<mem#>	Trunk group member number
<SPM #>	SPM number to which specified trunk is assigned
<cct_no>	OC-3 DS1 as datafilled in table TRKMEM
<cct_ts>	OC-3 DS0 as datafilled in table TRKMEM
<RM#>	Resource module number
<RN#>	Resource number
ERL: xx dB	Echo Return Loss reading returned by the SPM
ERLE: xx dB	Echo Return Loss Enhancement returned by the SPM
MERL: x dB	Minimum ERL datafilled in table SPMECAN
ERL+ERLE: xx dB	Acceptable value used by SPMECAN to determine if the specified echo canceller is performing within limits. Default is 33 dB
<rfl_dla>	The delay of the main reflection in the echo path
<orientation>	Echo canceller orientation; can be far end or near end
<ne_act>	The number of seconds of near-end speech activity since the beginning of the call
<fe_act>	The number of seconds of far end speech activity since the beginning of the call
<ne_lvl>	Average near-end signal (voice) level specified in dBm. Valid only if ne_act is greater than 20-30 seconds
<fe_lvl>	Average far-end signal (voice) level specified in dBm. Valid only if fe_act is greater than 20-30 seconds
<ne_ns>	The measured near-end absolute average background noise level, specified in dBm
Note: Fields are filled with asterisk (*) in cases where the trunk identity (<CLLI>/<mem#>) or hardware assignment (<SPM#>/<RM#>/<RN#>) cannot be determined.	

Table 42 (Sheet 2 of 2)

Response field	Explanation
<fe_ns>	The measured far-end absolute average background noise level, specified in dBm
<text>	Message used to explain the results of the SPMECMON request
Note: Fields are filled with asterisk (*) in cases where the trunk identity (<CLLI>/<mem#>) or hardware assignment (<SPM#>/<RM#>/<RN#>) cannot be determined.	

General error response explanations

There are several general responses that can be received regardless of the command formats entered. The following table describes the error responses and their possible causes.

Table 43 (Sheet 1 of 2)

Response	Explanation
Not assigned - SPM <SPM#> carrier <CCT#> channel <TS#>	A translation error occurred when converting the SPM number, resource module number, and resource number data contained in the SPM response message to its CLLI and CLII member number. Verify that the data contained in tables CLLI and TRKMEM contain valid data for the displayed SPM. Correct any table entry in error. Notify ETAS if the table data is already correct.
Maximum number of monitored trunk members exceeded. No action taken.	A limit of 100 trunk members may be monitored at a time. The command entered would cause the 101st trunk member to be monitored. The command is ignored and no action is taken. Turn off monitoring of a trunk member or the SPM and enter the command again.

Table 43 (Sheet 2 of 2)

Response	Explanation
Internal processing or data error. No action taken.	An unexpected processing or data error occurred. This response may be generated under a variety of circumstances. A swerr is generated to provide ETAS with additional information. If the message continues to be displayed after repeated attempts, notify ETAS of the problem.
Unknown SPMECMON command. Enter HELP SPMECMON for correct command options.	The input command does not conform to any of the allowed command formats. Enter the command again using a valid command format.

Examples

Example 1

Command

```
>SPMECMON imtc7lany 63 READ OUTPUT BOTH
```

Output

```
Manual performance monitoring reported on SPM660 log.

ECHO CANCELLER INFO REPORT
--------------------
Manual  Far-End
IMTC7LANY  63   -SPM 10    carrier 10  channel 9
                  RM: 20 RN: 3

ECAN DATA
   ERL: 18 dB ERLE: 16 dB MERL:   6dB ERL+ERLE: 34 dB
   Delay of Loudest Echo Reflection: 100 ms

                   Near-End   Far-End
   Talk-time         18 sec    18 sec
   Signal level     -25 dBm   -25 dBm
   Bckgrnd Noise    -40 dBm   -40 dBm

Speech activity < 30 seconds. Performance data not reliable.
```

Example 2

Command

```
>SPMECMON imtc7lany 63 ON OUTPUT BOTH
```

Output

```
ECHO CANCELLER INFO REPORT
--------------------
Manual  Far-End
IMTC7LANY  63   -SPM 10    carrier 10  channel 9
                  RM: 20 RN: 3

ECAN DATA
   ERL: 18 dB ERLE+ANLP: 16 dB MERL:   6dB ACOM: 34 dB
   Delay of Loudest Echo Reflection: 100 ms

                     Near-End  Far-End
      Talk-time        18 sec   18 sec
      Signal level    -25 dBm  -25 dBm
      Bckgrnd Noise   -40 dBm  -40 dBm

Speech activity < 30 seconds. Performance data not reliable.
```

Note: ANLP may be 0 if NLP is off.

Example 3

Command

```
>SPMECMON imtc7lany 64 ON
```

Output

```
IMTC7LANY          64  -SPM 10   carrier 2   channel 2
Continuous monitoring enabled.
```

Example 4

Command

```
>SPMECMON 5 610 ON OUTPUT MAP
```

Output

```
SPM 5 RM 6 RN 10
Continuous monitoring enabled.
```

Example 5

Command

```
>SPMECMON imtc7lany 63 ON OUTPUT MAP
```

Output

```
Already monitoring specified trunk member
No action taken.
```

Example 6

Command

```
>SPMECMON AUTO OFF
```

Output

```
Automatic monitoring disabled
```

Example 7

Command

```
>SPMECMON imtc7lany 64 ON
```

Output

```
IMTC7LANY      64 -SPM 10   carrier 2   channel 2
Already monitoring specified trunk member.
No action taken.
```

Example 8

Command

```
>SPMECMON imtc7lany 64 OFF
```

Output

```
IMTC7LANY      64 -SPM 10   carrier 2   channel 2
Continuous monitoring disabled.
```

Example 9

Command

```
>SPMECMON imtc7lany 64 STATUS
```

Output

```
IMTC7LANY      64 -SPM   10   carrier 0   channel 9
Continuous monitoring active.
```

Example 10

Command

```
>SPMECMON 12 STATUS
```

Output

```
Continuous monitoring active on the following trunks:
   IMTC7LANY 64-SPM 12 carrier 10 channel 9
   IMTC7LANY 63-SPM 12 carrier 11 channel 9
   IMTC7LANY 62-SPM 12 carrier 12 channel 9
```

Example 11

Command

```
>SPMECMON OFF
```

Output

```
SPMECMON OFF command started.
   Continuous monitoring disabled - SPM 10
   Continuous monitoring disabled - SPM 11
   Continuous monitoring disabled - SPM 12
SPMECMON OFF command complete
```

Example 12

Command

```
>SPMECMON STATUS
```

Output

```
Continuous monitoring active on the following trunks:
   IMTC7LANY 12 -SPM 10 carrier 0 channel 1
   IMTC7LANY 63 -SPM 13 carrier 0 channel 1
   IMTC7LANY 93 -SPM 20 carrier 0 channel 1
SPMECMON STATUS command complete.
```

Example 13

Command

```
>SPMECMON 5 6 10 STATUS
```

Output

```
SPM 5 RM6 RN10.
Continuous monitoring active.
```

Example 14

Command

```
>SPMECMON 5 6 10 ON
```

Output

```
Continuous monitoring enabled on the resource.
```

Example 15

Command

```
>SPMECMON 5 6 10 ON
```

Output

```
Already monitoring specified resource.
No action taken.
```

Example 16

Command

```
>SPMECMON 5 6 10 OFF
```

Output

```
Continuous monitoring disabled on the resource.
```

Example 17

Command

```
>SPMECMON 8 12 OFF
```

Output

```
This will disable continuous monitoring on SPM 8 RM 12.
Do you wish to continue? (“YES", “Y", “NO", “N")
(User enters “Y")
Continuous monitoring disabled for SPM 8 RM12.
```

8 PRSMCIDIR directory

This chapter describes the syntax, purpose, and semantics of some of the PRSMCIDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The PRSMCIDIR commands are as follows:

- DBAUDIT
- Select

DBAUDIT

Purpose

The DBAUDIT command resolves any discrepancies that exist between the database in the computing module with databases that exist in peripherals. The DBAUDIT command accepts SPM destinations as part of the syntax.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
DBAUDIT [dest set definition]
```

Parameters

The following table describes the parameters.

Table 8-1

Parameter	Value	Description
dest set definition	Variable based on the peripherals in a given office. Values include the following: SPM # CEM # SPM # OC3 # SPM # VSP # SPM # DSP # SPMLOAD	This optional parameter gives the name of the destinations that are to be audited. If no parameter is included, the audit is performed on all destinations in the office.

MAP responses

The following is the response to the command:

Table 8-2

Response	Explanation and action

`>dbaudit spm 0 dsp 12`
`Database audit submitted for 1 DESTs`
`Auditing destination SPM 0 DSP 12.....`
`Database audit completed for 1 DEST`
`Database discrepancy found in 0 DESTs`
	The output received from the DBAUDIT command indicates on which destinations the command was executed and the success or failures that occured on those destinations.
	SPM PRSU status discrepancies that exist between the PRSM database and the SPM before the command is executed must be resolved after the command is executed.

Example

```
>dbaudit spm 0 dsp 12
```

Select

Purpose

The Select command generates reports on data that is stored in the PRSM database. The DESTID field can be used for displaying a destination name. It can replace the existing DESTNAME, DEVICE, and UNIT fields.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SELECT <fields> <FROM> <prsm_set_def>  [<options {FLDWIDTH}>]
```

Parameters

The following table describes the parameters.

> **ATTENTION**
> The fields described here are for SPM only. Refer to PRSM NTPs for descriptions of other fields.

Table 8-3

Parameter	Value	Description
fields	DESTID	The name of a destination in the PRSM database
FROM	Not applicable	A field separator
prsm_set_def		A definition that defines a set of PRSUs or destinations
options		Variable parameters that can be included in formatting the reports

MAP responses

When using the DESTID field as part of a SELECT definition, all destination names are displayed as part of the response. This response is received on all types of processors in which PRSM is supported.

```
>select prsuid status destid loadname from prsuset prsus

where `status = a on spm 0 cem 0 fldwidth prsuid 12

PRSUID        ST  DESTID                  LOADNAME

-----------  ---  -----------              -------

SNT000100000   A   SPM 0 CEM 0             CEM0001

SNT000100001   A   SPM 0 CEM 0             CEM0001

SNT000100002   A   SPM 0 CEM 0             CEM0001

SNT000100003   A   SPM 0 CEM 0             CEM0001

>select prsuid status destid loadname from prsuset prsus

where `status = a on spm 1 fldwidth prsuid 12

PRSUID          ST  DESTID                          LOADNAME

-----------    ---  -----------                      -------

SNT000100004     A   SPM 1 CEM 0                     CEM0001

SNT000100004     A   SPM 1 CEM 1                     CEM0001

SNT000100005     A   SPM 1 OC3 0                     OC30001

SNT000100005     A   SPM 1 OC3 1                     OC30001

SNT000100006     A   SPM 1 DSP 0                     DSP0001

SNT000100006     A   SPM 1 DSP 1                     DSP0001

SNT000100006     A   SPM 1 DSP 2                     DSP0001

SNT000100006     A   SPM 1 DSP 3                     DSP0001

SNT000100007     A   SPM 1 VSP 10                    VSP0001

SNT000100007     A   SPM 1 VSP 11                    VSP0001

SNT000100007     A   SPM 1 VSP 12                    VSP0001

SNT000100007     A   SPM 1 VSP 13                    VSP0001
```

Example

None

SPMCEMDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMCEMDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMCEMDIR commands are as follows:

- ABTK
- Bsy
- EraseFl
- ListAlm
  - — for BRISC
  - — for SuperNode
- ListSet
- LoadMod
  - — for BRISC
  - — for SuperNode
- Next
- Offl
- Prot
- QueryMod
- Quit
- RESETMOD
- RTS
- Select
- Tst
- Transl

To access the directory

To access the SPMCEMDIR directory, enter one of the following commands:

```
>mapci;mtc;pm;post spm <node_no>;select cem <unit_no>
```

or

>mapci;mtc;pm;post spm <node_no>;select cem all

or

>mapci;mtc;pm;post spm <spm number> (0 to 63);select cem <cem_number> (0 to 1)

This is an example of the command:

>mapci;mtc;pm;post spm 3;select cem 0

To return to CI

>quit all

CEM screen

The following figure shows the common equipment module (CEM) screen.

```
  CM       MSN     IOD      Net       PM      CCS      Lns      Trks     Ext      APPL
   .        .       .        .         .       .        .        .        .        .



 SPM
  0 Quit                               SysB     ManB     OffL     CBsy     ISTb     InSv
  2                      PM               3        0        6        0       10        0
  3 ListSet              SPM              1        0        2        0        2        0
  4                      CEM              2        0        0        0        0        0
  5
  6 Tst               SPM    3  CEM 0  Act  INSV
  7 Bsy               Loc: Row E  FrPos 8  ShPos 24  ShId 0  Slot 7  Class: DMSCP
  8 RTS               Default Load: CEM0011
  9 OffL              Clock:
 10 LoadMod           Input Ref: Internal  Source STM 0   Current mode: Sync
 11
 12 Next
 13 Select_
 14 QueryPM
 15 ListAlm
 16 Prot
 17 EraseFl
 18

    14:12 >
```

ABTK

Purpose

The ABTK command is used to abort the following maintenance activities on the CEM:

- Loading (Out of Service and Insv)
- SYSB recovery

This command is also used to abort REX on the CEMs of the SPM. If the ABTK command is issued with the intention to abort REX test, then it can be issued from any CEM MAP of that SPM, and it acts upon both the CEMs.

The ABTK command can only abort REX test if it is in between steps (indicated by /mtc/REX Test) on the inactive CEM MAP. If a REX step is currently in progress, when the operator enters the ABTK command, the REX test is aborted only after the current step has been executed.

For example, if the present step of REX is Reset step, then when the operator enters ABTK on the CEM MAP, REX test is aborted only after the Reset step is completed.

The ABTK command may leave the inactive CEM in an indeterminate state. It is the responsibility of the operator to bring the SPM into service by issuing the following commands on the CEM MAP:

```
SELECT <inactive_cem_no>; BSY

RTS
```

If the operator does not follow this procedure, then the system attempts recovery of the CEM.

Note: An ABTK command issued on SPM <spm number> CEM0 affects the activities running on SPM <spm number> CEM0 only and not those running on SPM <spm number> CEM1.

Command type

Unlisted menu

Command target

All

Command availability

Res

Command syntax

The command syntax is as follows:

```
ABTK
```

The effect of the command is to abort all active tasks on the CEM.

Note: The ABTK command is supported for the CEM, INSV and OOS Loaders, SYSB Recovery and REX test.

Parameters

The ABTK command has no parameters and the operator is not prompted for any additional information.

Warnings

No warnings are displayed.

MAP responses

Responses depend on whether the command is accepted or rejected. The sections below show the possible responses to the following commands:

```
>MAPCI;MTC;PM;POST SPM <spm_no>;SELECT CEM <cem_no>;

>ABTK
```

Command passed: command completed

This response indicates that ABTK command has successfully aborted the REX test, SysB recovery, Oos loading, or Insv loading on the posted SPM.

System or user actions

The command may leave the inactive CEM in an indeterminate state (SYSB on the MAP). The operator must perform the following procedure in order to bring up the SPM:

```
SELECT <inactive_cem_no>; BSY

RTS
```

If the operator does not perform the above procedure, then the system attempts recovery of the CEM.

Command rejected: no maintenance in progress on the unit

This response indicates that there is no activity on the posted SPM.

System or user actions

Not applicable.

Command rejected: command not supported for this maintenance action

This response indicates that ABTK does not support abort request for the current maintenance action on the unit. ABTK is supported only on OOS, INSV Loading, SYSB Recovery and REX test on the SPM.

System or user actions

Not applicable.

Command rejected: abort in progress

This response indicates that ABTK is already in progress for the current maintenance activity on the unit or SPM.

System or user actions

Not applicable.

Example

Command:

```
>ABTK
```

MAP response:

```
SPM  4 CEM  0 Abtk: Request has been submitted.

SPM  4 CEM  0 Abtk: Command Completed.
```

Bsy

Purpose

The Bsy command changes the state of a selected CEM to out-of-service or manual busy (ManB). This command is used to change the state of a CEM resource module (RM) to ManB from any state, including

- offline (OffL)
- in-service (INSV)
- in-service trouble (INTb
- system busy (SYSB)

DANGER
Possible service interruption
Changing from INSV to ManB may have an impact on service.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bsy: Busy the selected CEM.

ALL option applies to all the selected CEMs (one or both).

Parms: [<ALL>{ALL}]

       [<Force> {FORCE}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 9-1

Parameter	Value	Description
All	ALL	All the selected CEMs
Force	FORCE	Indicates override
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following responses indicate the requests to manually busy both CEMs was submitted and successfully completed.

```
SPM 0 CEM 0 Busy: Request has been submitted.

SPM 0 CEM 0 Busy: Command completed.

SPM 0 CEM 1 Busy: Request has been submitted.

SPM 0 CEM 1 Busy: Command completed.
```

Timing reference SPM

When the inactive CEM is busy and the user tries to busy the active CEM of a timing reference SPM, the following message displays on the MAP screen. The message displays for the BSY, BSY FORCE, and BSY NOPROMPT commands. The BSY and BSY NOPROMPT commands automatically abort if the mate CEM is not available.

```
WARNING: This SPM is an office timing reference. Mate CEM not
available. A Bsy action will isolate available resource modules.

Do you wish to continue?

Please confirm (“YES”, “NO”, “Y”, “N”):
```

BSY FORCE option and datasync mismatch

Use the BSY FORCE command with care. Executing the command may affect the services of the node.

No existing datasync mismatch

The following message indicates that the BSY FORCE command was issued on the active CEM when there was no datasync mismatch between the CEMs.

```
A BSY FORCE action on the Active unit will cause a switch of
activity and may impact services on this node.

Do you wish to continue?

Please confirm (“YES”, “NO”, “Y”, “N”):
```

Note: The response regarding BSY FORCE is just a warning. The operating company personnel can continue with the execution of the command by responding “YES.” This action may affect the services of the node due to a Switch of Activity. The operating company personnel may abort the command by responding with the option “NO.”

Existing datasync mismatch

The following message indicates that the busy command with FORCE option was issued on the active CEM while there was a datasync mismatch between the CEMs.

```
Datasync mismatch exists between the CEMs. A BSY FORCE action
on the Active unit will cause a switch of activity and may impact
services on this node.

Do you wish to continue?

Please confirm (“YES”, “NO”, “Y”, “N”):
```

Note: The response regarding the datasync mismatch is just a warning. The operating company personnel can continue with the execution of the command by responding “YES.” This action may affect the services of the node due to the datasync mismatch. The operating company personnel may abort the command by responding with the option “NO.”

EraseFl

Purpose

The EraseFl command clears the flash memory of the CEM of a SPM.This command is supported for DMS Call Processing(DMSCP), Inter-working (IW), Media Gateway 4000 (MG4K) and Dynamic Packet Trunk (DPT)/ Internet Protocol (IP) variants of SPM.

The CEM of the SPM should be in ManB state and have a software on RAM.

The command does not support any optional parameters.

The command take about 2 minutes to successfully complete the erase task.

Command type

Menu

Command target

All

Command availability

Res

Command syntax

The following is the syntax for the EraseFl command at the SPM node level:

```
Erasefl:Erase flash memory on the selected CEM.
```

Parameters

The following table describes the parameters for the syntax.

Table 9-2

Parameter	Value	Description
Erasefl	nil	

MAP responses

The following are responses to this command.

```
This command erases the flash memory of the CEM.
Execution of this command is recommended only when the card
is being relocated or decommissioned.
Execution of this command in other instances may result in
service degradation.
Do you wish to continue?
```

```
Please confirm ("YES", "Y", "NO", or "N"):
```

The following are responses to this command.

Table 9-3 (Sheet 1 of 3)

Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >ERASEFL This command erases the flash memory of the CEM. Execution of this command is recommended only when the card is being relocated or decommissioned. Execution of this command in other instances may result in service degradation. Do you wish to continue? Please confirm (Yes, Y, No, or N)
Explanation and action	Warns the user that erasefl command erases the flash memory of the CEM and the command should be executed only when the CEM card needs to be relocated or decommissioned. The user should make sure that the command is executed only if the card needs to be relocated or decommissioned.
Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >ERASEFL This command erases the flash memory of the CEM. Execution of this command is recommended only when the card is being relocated or decommissioned. Execution of this command in other instances may result in service degradation. Do you wish to continue? Please confirm (Yes, Y, No, or N) >y SPM 1 CEM 0 EraseFl: Request has been submitted SPM 1 CEM 0 EraseFl: Command completed.
Explanation and action	If the user confirms to continue, the flash memory of the CEM X of SPM Y is erased and a success message is displayed.
Response	Command rejected: The CEM is not in ManB state

Table 9-3 (Sheet 2 of 3)

Explanation and action	Tells the user that erasefl command cannot be executed if the state of the CEM is not MANB. The user should take the CEM to ManB state and execute the command.
Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >ERASEFL SPM Y CEM X EraseFl: Command rejected. <appropriate maintenance action in progress>
Explanation and action	The erasefl command on a CEM is rejected if any maintenance is already in progress. For example, when test is in progress, the response will be SPM 1 CEM 0 EraseFl: Command rejected. Test in progress. The user should wait till the MIP is lowered and then execute the command.
Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >ERASEFL SPM Y CEM X EraseFl: Command failed. Unable to contact local.
Explanation and action	If the local failed to respond to the eraseflash request, the above message is displayed on the MAP. Check logs and clear alarms.
Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >ERASEFL ALL EITHER incorrect optional parameter(s) OR too many parameters.
Explanation and action	The ERASEFL command does not support any parameters. Ensure that the command is executed without any parameters.
Response	Command >MAPCI;MTC;PM;POST SPM Y >ERASEFL Undefined command ERASEFL

Table 9-3 (Sheet 3 of 3)

Explanation and action	The erasefl command is executed from SPM level. A similar message is displayed if the command is executed from PROT level (MAPCI;MTC;PM;POST SPM X;SELECT CEM Y;PROT) Ensure that the command is executed from CEM level.
Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >ERASEFL SPM Y CEM X EraseFl: Command failed.
Explanation and action	The core has failed to initiate the eraseflash task. Check logs and clear alarms.
Response	Command >MAPCI;MTC;PM;POST SPM Y;SELECT CEM X >RTS SPM 1 CEM 0 EraseFl:Command rejected.Erase Flash in progress.
Explanation and action	The erasefl command is maintenance blocking. It does not allow any other command to be executed till the task gets completed. The user should wait till the eraseflash task is completed.

Examples

The following are examples of this command.

```
>ERASEFL

This command erases the flash memory of the CEM.

Execution of this command is recommended only when the card is
being relocated or decommissioned.

Execution of this command in other instances may result in
service degradation.

Do you wish to continue?

Please confirm (Yes, Y, No, or N)

>y

SPM 1 CEM 0 EraseFl: Request has been submitted

SPM 1 CEM 0 EraseFl: Command completed.
```

ListAlm for BRISC

Purpose

The ListAlm command for BRISC displays to the MAP terminal the list of alarms that are pegged against the posted entity (SPM node, CEM, DSP, VSP, or OC3). The alarms display in decreasing order of severity (Critical, Major, Minor, No Alarm). The command also allows the user to select a particular severity and display only those alarms. The default value is to list all alarms pegged against the entity.

Note: This ListAlm command information is the same for each entity that can be posted (SPM node, CEM, DSP, VSP, or OC3).

The user can view only those alarms that are provisioned to “reportable" (the default value) or all alarms including those provisioned as “not to be reported".

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following is the syntax for the ListAlm command at the SPM node level:

```
>LISTALM CRLISTALM <option>
```

Parameters

The following table describes the parameters for the syntax.

Table 9-4 (Sheet 1 of 2)

Parameter	Value	Description
Option	CR	List all reportable Critical alarms posted against the given entity.
	MJ	List all reportable Major alarms posted against the given entity.
	MN	List all reportable Minor alarms posted against the given entity.

Table 9-4 (Sheet 2 of 2)

Parameter	Value	Description
	NA	List all reportable No Alarm alarms posted against the given entity. This parameter implies that an alarm can have a severity that is less than minor but still needs to be displayed. Usually, this is not be used.
	NRPT	Display the non-reportable alarms along with the reportable ones. This optional parameter can be used alone or in conjunction with each severity parameter and the full parameter described in the “MAP responses" table.

MAP responses

The following are responses to this command.

```
ListAlm: SPM <spm_number> (0 to 63)

<alarm_severity>   <alarm_name>   <alarm_action>
```

The following table describes the parameters for this command.

Table 9-5 (Sheet 1 of 2)

Parameter	Description
alarm_severity	Critical, Major, Minor, No Alarm
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Table 9-5 (Sheet 2 of 2)

Parameter	Description
alarm_name	A less than or equal to 8 character name for the alarm. The text “non" indicates there are no alarms to report.
alarm_action	The actions are as follows: • RPT indicates this alarm is provisioned to be reportable. It is used to distinguish between alarms provisioned to be reportable and those provisioned to be non-reportable. • NONRPT indicates this alarm is provisioned to be non-reportable. It is only displayed when the NRPT option is issued with the ListAlm command. • Blanks display in the alarm_action field instead of NONRPT when the ListAlm command is issued without the NRPT optional parameter. In addition, when an alarm is provisioned as non-reportable, the alarm name displays in response to the ListAlm command.
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Examples

The following examples are a series of command variances that illustrate what the display for the alarms would look like. This example uses fictitious alarm names.

The examples assume the alarms are pegged against the Node: nalm1 Critical, nalm2 Critical, nalm3 Major, nalm4 Minor, nalm5 Minor Non-Reportable, nalm6 No Alarm.

The CEM has the following alarms pegged against it: calm1 Critical, calm2 Minor Non-Reportable, calm3 Major.

The DSP has the following alarms pegged against it: dalm1 Minor, dalm2 Minor Non-Reportable, dlam3 Major.

The OC3 has the following alarms against it: oalm1 Major, oalm2 Minor, oalm3 Minor, oalm4 No Alarm non-reportable.

There are no alarms pegged against the VSP in this example.

The following are a series of command variances:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT


>mapci;mtc;pm;post spm 0;listalm MJ
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               NALM3       RPT


>mapci;mtc;pm;post spm 0;listalm MN
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
```

```
>mapci;mtc;pm;post spm 0;listalm NA

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
Minor               NALM5       NONRPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT

>mapci;mtc;pm;post spm 0;listalm MN NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
Minor               NALM5       NONRPT
```

```
>mapci;mtc;pm;post spm 0;select cem 0;listalm
ListAlm: SPM 0 CEM 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               None
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               CALM2       NONRPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm CR
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT


>mapci;mtc;pm;post spm 0;select cem 0;listalm MJ NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select DSP 0;listalm
ListAlm: SPM 0 DSP 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm CR
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM2       NONRPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm MJ NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select OC3 0;listalm
ListAlm: SPM 0 OC3 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            None



>mapci;mtc;pm;post spm 0;select OC3 0;listalm NRPT
ListAlm: SPM 0 OC3 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            OALM4       NONRPT
```

When alarms are listed with no alarms raised, the following displays:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               None
Minor               None
No_Alarm            None
```

ListAlm for SuperNode

Purpose

The ListAlm command for SuperNode displays the list of alarms associated with the selected module (circuit pack) in the SPM. If no parameter is specified, the entire list of alarms associated with the selected module is displayed. However, if an alarm number is specified as parameter to this command, details of the specified alarm display.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListAlm: Display alarms for the posted entity.

All alarms can be listed by severity by entering the command
without parms or by a single severity using parameters 1-4. The
non-reportable alarms can be included in either case. This
command provides the following options:

1. CR : List all Critical alarms.

2. MJ : List all Major alarms

3. MN : List all Minor alarms

4. NA : List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms:  [<Option>       {CR [<Action> {NRPT}],

                         MJ [<Action> {NRPT}],

                         MN [<Action> {NRPT}],

                         NA [<Action> {NRPT}],

                         NRPT}]
```

Parameters

The parameters are described in the following table.

Table 9-6

Parameter	Value	Description
AlarmNo	0-?	Alarm number
Option	CR	Critical alarm
	MJ	Major alarm
	MN	Minor alarm
	NA	No-Alarm alarm
	NRPT	Non-reportable alarm

MAP responses

The following is a response to this command.

```
ListAlm: SPM 0 CEM 0

SEVERITY    ALARM    ACTION

-----------------------------------------

Critical    None

Major       MANBNA   RPT

Minor       None

No_Alarm    None
```

Example

None

ListSet

Purpose

The ListSet command lists the contents of the Post set.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
List the contents of the post set
```

Parameters

None

MAP responses

None

LoadMod for BRISC

Purpose

The LoadMod command is used to issue data download request to the select common equipment module (CEM). In this case, the LoadMod runs the InSv Loader and the RESTORE command.

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following is the syntax for the LoadMod command at the SPM node level.

```
LoadMod: Perform load operations on the selected CEM. The
following options apply:

1. NOWAIT  - Return control to CI prompt.

2. NOREPLY - No Yes/No prompting.

3. INSVLD  - Perform INSV load on inactive CEM only.

4. RESTORE - Restore RAM memory to FLASH.

5. FN      - Load the following filename.

             Options 1-3 are valid parms in combination with the
             FN option.

Parms: [<LD_Options> {NOWAIT,

                      NOREPLY,

                      INSVLD,

                      RESTORE,

                      FN <Filename> STRING

                        [<FN_Options>    {NOWAIT,

                                          NOREPLY,
```

```
                                                    INSVLD}]}]
```

Parameters

The following table describes the parameters.

Table 9-7

Parameter	Value	Description
LD_Options	NOWAIT	Run the INM Loader. After submitting the loader task, immediately return the users prompt. No reply messages are sent back to the CI prompt.
	NOREPLY	Run the INM Loader. After submitting the loader task, immediately return the users prompt. No reply messages are sent back to the CI prompt. Also, do not request any yes/no prompts.
	INSVLD	Run the INM Loader in NOWAIT mode.
	RESTORE	Run the RESTORE command in WAIT mode.
	FN	Enter a valid filename.
FN	filename	This value indicates the filename to be entered.
FN_Options	NOWAIT	Run the INM Loader using the given load file. After submitting the loader task, immediately return the users prompt. No reply messages are sent back to the CI prompt.
	NOREPLY	Run the INM Loader using the given load file. After submitting the loader task, immediately return the users prompt. No reply messages are sent back to the CI prompt. Also, do not request any yes/no prompts.
	INSVLD	

MAP responses for InSv Load

The following are responses to this command.

Table 9-8 (Sheet 1 of 3)

Response	Explanation and action
`InSv Load: Screening passed.`	The initial screening prior to submitting the InSv Load request to the SPM boot loader (SBL) was successful. See Note.
`InSv Load: Failed` `MIP detected on unit.`	While screening for the InSv Loader, the screening procedure detected that maintenance was already in progress on the CEM unit. This MIP was detected in the core software.
`InSv Load: Failed` `CEM Unit must be inactive.`	While screening for the InSv Loader, the screening procedure determined that the CEM in question was not the inactive unit. Select the inactive unit and issue command again.
`InSv Load: Failed` `Cannot determine Active unit.`	While screening for the InSv Loader, the screening procedure could not determine what CEM unit was active. This is a software error. Contact the next level of maintenance.
`InSv Load: Failed` `Unit must be InSv or ISTb.`	While screening for the InSv Loader, the screening procedure determined that the CEM unit was not in the correct state. Bring the unit into an In-service state of InSv or ISTb and issue the command again.
`InSv Load: Failed` `Unit must be available.`	While screening for the InSv Loader, the screening procedure determined that the CEM unit was isolated. Determine reason for isolation. Correct and issue the command again.
`InSv Load: Failed` `Cannot determine unit state.`	This is a software error. Contact the next level of maintenance.

Note: The strings that are displayed when the SBL submit request fails are all derived from return codes passed back from the SBL. If any of these failures occur, it generally means that the SBL is having some kind of resource issue. Do not attempt to correct these kinds of problems.

Table 9-8 (Sheet 2 of 3)

Response	Explanation and action
`InSv Load: Failed` `Cannot obtain Active unit Frame Transport Address.`	While screening for the InSv Loader, the screening procedure could not get the frame transport address (FTA) to the active CEM unit. This is a software error. Contact the next level of maintenance.
`InSv Load: Failed` `Unable to determine default loadname.`	While screening for the InSv Loader, the screening procedure could not determine the default loadname given in table PMLOADS. Make sure the loadname is correct in table PMLOADS and in table MNCKTPAK. Issue the command again.
`InSv Load: Submit NOWAIT request passed.`	Successfully submitted the InSv Loader request to the SBL.
`InSv Load: Failed` `Boot control block does not exist.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Boot loader ACK receiver not bound in.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Boot process has no mailbox.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Too many boot requests running now.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Cannot allocate buffers.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Bad input parameters.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.

Note: The strings that are displayed when the SBL submit request fails are all derived from return codes passed back from the SBL. If any of these failures occur, it generally means that the SBL is having some kind of resource issue. Do not attempt to correct these kinds of problems.

Table 9-8 (Sheet 3 of 3)

Response	Explanation and action
`InSv Load: Failed` `Cannot get store for load destinations.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Cannot get the ID of the circuit pack.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Duplicate circuit pack entry.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Cannot send message to start loading.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Bad boot request reference number.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `The boot request is no longer active.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
`InSv Load: Failed` `Cannot find the circuit pack.`	While submitting the InSv Load request, the SBL was unable to execute the request. See Note. Contact next level of maintenance.
Note: The strings that are displayed when the SBL submit request fails are all derived from return codes passed back from the SBL. If any of these failures occur, it generally means that the SBL is having some kind of resource issue. Do not attempt to correct these kinds of problems.	

MAP responses for RESTORE

The following are responses to this command.

Table 9-9 (Sheet 1 of 3)

Response	Explanation and action
`Restore: Passed`	The RESTORE command was successful.
`RESTORE: Failed` `Screening failed: MIP detected on unit.`	While screening for the RESTORE command, maintenance was detected running on the CEM unit. Wait until the MIP is no longer set and issue the command again.
`RESTORE: Failed` `Screening failed: Unit cannot be in OFFL state.`	While screening for the RESTORE command, the CEM unit was in the OffL state. BSY the CEM unit and issue the command again.
`RESTORE: Failed` `Screening failed: Unit must be available.`	While screening for the RESTORE command, the CEM unit was isolated. Determine the reason why the CEM unit was isolated and issue the command again.
`RESTORE: Failed` `Screening failed: Cannot determine unit state.`	While screening for the RESTORE command, the CEM unit state could not be determined. This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Unable to allocate MTA owner.`	While executing for the RESTORE command, it was unable to allocate the MTA identification. This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Unable to allocate reply MTA offset.`	While executing for the RESTORE command, it was unable to allocate a reply MTA offset. This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Unable to send MTS message.`	While executing for the RESTORE command, it was unable to send the outgoing message. This is a software error. Contact the next level of maintenance.

Table 9-9 (Sheet 2 of 3)

Response	Explanation and action
`RESTORE: Failed` `Reply message time-out exceeded.`	While executing for the RESTORE command, the command did not receive a reply from the CEM local software. This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Invalid reply message received.`	While executing for the RESTORE command, the CEM local software returned an invalid return code or message type. This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Failed to retrieve reply message.`	While executing for the RESTORE command, it was unable to receive the incoming message. The messaging system encountered an error condition. This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Unable to bind CI process as MTS receiver.`	This is a software error. Contact the next level of maintenance.
`RESTORE: Failed` `Load in FLASH already matches that in RAM.`	While executing for the RESTORE command, the CEM local return indicated that the load in the FLASH already matches that in the RAM. No action required. This is not considered a failure.
`RESTORE: Failed` `Restore failed in CEM.`	While executing for the RESTORE command, the CEM local software was unable to copy the RAM into the FLASH memory. Look at SWERRS in CEM local. Possibly, this is a hardware issue. If so, run hardware diagnostics.
`RESTORE: Failed` `MIP detected in local CEM.`	While executing for the RESTORE command, the local CEM software detected maintenance was already in progress in the CEM local. Wait until the MIP is lowered in the CEM and issue the command again.
`RESTORE: Failed` `Unable to get FTA to selected CEM.`	While executing for the RESTORE command, it was unable to obtain the FTA to the CEM unit. This is a software error. Contact the next level of maintenance.

Table 9-9 (Sheet 3 of 3)

Response	Explanation and action
`RESTORE: Failed` `Unable to create reply MTA.`	While executing for the RESTORE command, it was unable to create the MTA address. This is a software error. Contact the next level of maintenance.
`Restore: Failed` `Unable to create destination MTA.`	While executing the RESTORE command, it was unable to create the destination MTA. This is a software error. Contact next level of maintenance.

Examples

The following are examples of this command.

`>LoadMod`

`>LoadMod fn <filename>`

LoadMod for SuperNode

Purpose

The LOADMOD command loads the selected common equipment module (CEM) with the load stored on the XA-Core.

Note: The LOADMOD command is restricted to LOADMOD INSVLD for BootP suppressed MG4000 nodes because the BootP and trivial FTP (TFTP) requests included in a direct LOADMOD operation are blocked in the nearest edge routers.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LoadMod:  Perform load operations on the
          selected CEM.
          The following options apply:

NOWAIT  - Return control to CI prompt.
NOREPLY - Return control to CI prompt but
          do not print command results.
INSVLD  - Perform INSV load on inactive
          CEM only.

Parms:  [<Load Name> STRING]
        [<Options> {NOWAIT,
                    NOREPLY,
                    INSVLD}]
```

Parameters

The following table describes the parameters.

Parameter	Value	Description
Load Name	String up to 32 characters	The load filename
Options	NOWAIT	Return control to CI prompt
	NOREPLY	No Yes/No prompt
	INSVLD	Perform INSV load on inactive CEM only

Qualifications and Warnings

The following warning is displayed:

```
RESETMOD is recommended to load a CEM device from Flash memory.
LOADMOD reloads devices from the un-patched core disk load.
Applicable patches will not be applied following LOADMOD.
Relevant patches will be automatically queued for application
as part of device RTS.
Do you wish to proceed with LOADMOD?
Please confirm ("YES", "Y", "NO", or "N"):
>
```

MAP response

The following are responses to this command.

Table 9-10 LOADMOD command responses

MAP output	Meaning and action
`SPM 0 CEM 0 Load: Request has been submitted`	**Meaning:** Request was submitted. **Action:** None.
`Load setup failed`	**Meaning:** The firmware/hardware failed prior to the bootload process. For example, the CEM may have lost messaging during the bootload part of the loadmod operation. **Action:** Check the messaging logs.

Table 9-10 LOADMOD command responses

MAP output	Meaning and action
`Command rejected: Cannot execute OOS loading on BootP Suppressed node`	**Meaning:** Out of Service (OOS) loading is not possible for Bootp suppressed MG4000 nodes. **Action:** Load the CEM using one of the following methods: • The LOADMOD INSVLD, or • The local craft interface (LCI)

Table 9-11 LOADMOD INSVLD command responses

MAP output	Meaning and action
`Command passed: Command Completed. The unit contains the <load name> load.`	**Meaning:** This response indicates that the command has completed successfully by sending the load records to the inactive flash memory, then restarting the load from the flash. **Action:** None.

Examples

To load the CEM with the load as specified in the MNCKTPAK data schema table type:

```
>LoadMod
```

To load the CEM with a specified load, type:

```
>LoadMod <file_name>
```

To load the target CEM by directly copying the load records into the flash memory and then restarting, type:

```
>LoadMod INSVLD
```

To load the target CEM by directly copying the load records of a specified load into the flash memory and then restarting, type:

```
>LoadMod <file_name> INSVLD
```

Next

Purpose

The Next command goes to the next of the selected modules.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Next:  Step to next CPK in post set.

Parms: [<CPK TYPE> {CPKTYPE}]
```

Parameters

None

MAP response

The following is a response to this command.

```
Display the next circuitpack screen.Next
```

Example

The following is an example of this command.

```
>Next
```

OffL

Purpose

The OffL command changes the state of a selected module to offline (OffL). The manual busy (ManB) to OffL transition applies to both common equipment modules (CEM) (whole node) even if only one CEM is selected. Therefore, the <All> option is not needed for this command.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
OffL: OffLine both CEMs.

This operation would offline the SPM node.

Parms: [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

The parameters are described in the following table.

Table 9-12

Parameter	Value	Description
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
ManB to Offl transition would apply to the SPM node

The SPM and both the CEMs will be changed to ManB state

Do you wish to continue?

Please confirm (“YES", “Y", “NO", or “N"):

y

SPM 0 CEM 0 Offline: Request has been submitted.

SPM 0 CEM 1 Offline: Request has been submitted.

SPM 0 CEM 0 Offline: Command completed.

SPM 0 CEM 1 Offline: Command completed.
```

Example

The following is an example of this command.

```
>Offl
```

Prot

Purpose

The Prot command brings up the protection screen for the module from whose screen the Prot command is issued.

Refer to Chapter, “SPMPROTDIR directory," for more information about the Protection screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Prot: Enter the Protection level MAP
```

MAP response

When the command is executed, the Protection screen displays.

No existing datasync mismatch

If there is no datasync mismatch between the two CEMs, the following message appears on the SPM MAP screen when the operating company personnel attempts to run the SWACT command. The message appears when either the MANUAL or FORCE command is used.

```
A Switch of Activity may impact services on this node.

Do you wish to continue?

Please confirm (“YES”, “NO”, “Y”, “N”):
```

Note: The response regarding the SWACT command is just a warning. Whether using the MANUAL or FORCE command, the operating company personnel can continue with the execution of the command by responding “YES.” This action may affect the services of the node due to a Switch of Activity. The operating company personnel may abort the command by responding with the option “NO.”

Existing datasync mismatch

If there is a datasync mismatch between the two CEMs, the following message appears on the SPM MAP screen when the operating company personnel attempts to run the SWACT command. The message appears when either the MANUAL or FORCE command is used.

```
Datasync mismatch exists between the CEMs. A Switch of Activity
may impact services on this node.

Do you wish to continue?

Please confirm (“YES”, “NO”, “Y”, “N”):
```

Note: The response regarding the datasync mismatch is just a warning. Whether using the MANUAL or FORCE command, the operating company personnel can continue with the execution of the command by responding “YES.” This action may affect the services of the node due to a datasync mismatch. The operating company personnel may abort the command by responding with the option “NO.”

Example

The following is an example of this command.

```
>Prot
```

QueryMod

Purpose

The QueryMod command queries a specified module (circuit pack) in the SPM. In the case of a common equipment module (CEM), it displays the information about both CEMs.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
QueryMod: Query misc info about the CEM.
```

MAP responses

The following are responses to this command.

```
CEM 0 ManB Act   Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot  7

CEM 1 ManB InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot  8
```

Example

The following is an example of this command.

```
>QueryMod
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 9-13

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

RESETMOD

Purpose

The RESETMOD command is used to restart a CEM. The CEM must be in MANB state in order to accept the command, otherwise the command is rejected.

For BootP suppressed MG4000 nodes, during the execution of the RESETMOD command, a maintenance in progress (MIP) flag is raised on the mate CEM as 'Mate Rcvry'. This blocks any further maintenance on the mate unit.

Command type

Unlisted menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ResetMod: Reset the selected CEM.

FW      - Reset the CEM to the firmware.

VIAMATE - Reset the CEM via the MATE (MG4K ONLY).

Parms:[<Reset Type> {FW}]

       [<Via Mate> {VIAMATE}]

       [<All> {ALL}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 9-14

Parameter	Value	Description
Reset Type	FW	Reset the target CEM to the firmware level.
Via Mate	VIAMATE	Reset the target CEM by sending the reset command through the mate.
All	ALL	Reset all the selected CEMs.
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

This section describes the MAP responses.

Note: If the BootP Suppression is active then the following warning message is *not* displayed:

```
Resetmod loads a CEM device from flash memory.
The command fails if the load in the flash is corrupt/absent.
LOADMOD is recommended if the flash is invalid.
Do you wish to proceed with RESETMOD?
Please confirm ("YES", "Y", "NO", or "N"):
```

Table 9-15 RESETMOD command responses

MAP output	Meaning and action
`Command passed: Command Completed`	**Meaning:** The command has been completed successfully. **Action:** None.
`Command passed: Command completed. Autonomous mate loading occurred`	**Meaning:** The RESETMOD completed successfully through autonomous mate loading. This may be because of some kind of failure to restart the load from the flash in the target CEM through RESETMOD VIAMATE. The target CEM now contains the load that was in its mate. **Action:** Use QUERYPM FILES to check the load on the target CEM.

Table 9-15 RESETMOD command responses

MAP output	Meaning and action
`Command failed: Autoloading failed. Check logs on mate CEM`	**Meaning:** The RESETMOD failed to restart from the target CEM's flash memory. The autonomous mate loading also failed. In such circumstances, the return to service (RTS) may sometimes fail with the CEM unable to recover through autonomous mate loading. **Action:** Manually load the CEM through the local craft interface (LCI).

Table 9-16 RESETMOD VIAMATE command responses

MAP output	Meaning and action
`Command passed: Command Completed`	**Meaning:** The command has been completed successfully by sending the reset through the mate. **Action:** None.
`Command passed: Command completed. Autonomous mate loading occurred`	**Meaning:** The RESETMOD completed successfully through autonomous mate loading. This may be because of some kind of failure to restart the load in the flash of the target CEM through RESETMOD VIAMATE. The target CEM now contains the load that was in its mate. **Action:** Use QUERYPM FILES to check the load on the target CEM.
`Command  rejected: Maintenance already in progress on the mate`	**Meaning:** The MIP flag is raised on the mate CEM for some other activity and therefore the RESETMOD VIAMATE command is rejected. **Action:** Try again once the maintenance has finished and the MIP flag is not raised on the mate CEM.
`Command failed: Autoloading failed. Check logs on mate CEM`	**Meaning:** The RESETMOD failed to restart from the target CEM's flash memory. The autonomous mate loading also failed. In such circumstances, the return to service (RTS) may sometimes fail with the CEM unable to recover through autonomous mate loading. **Action:** Manually load the CEM through the local craft interface (LCI).
`Command Rejected: Mate in invalid state. Must be INSV or MANB`	

Table 9-16 RESETMOD VIAMATE command responses

MAP output	Meaning and action
	Meaning: The mate CEM (not the target CEM) is in a state other than in-service (INSV) or manual-busy (MANB) and so cannot accept the command. **Action:** Change the mate CEM to either INSV or MANB state. It must also be able to communicate with the XA-core.
`Command Rejected: Mate is not accessible`	**Meaning:** The mate CEM (not the target CEM) has its availability trait set and is not able to start the reset on the target CEM. **Action:** Change the mate CEM to either INSV or MANB state. It must also be able to communicate with the XA-core. That is it should have its AVAIL trait set to TRUE.
`Command Rejected: No acknowledgement from mate`	**Meaning:** The mate CEM on the core has not received the ACK for the RESET MATE request as part of the RESETMOD VIAMATE command. **Action:** The mate CEM is having problems communicating with the XA-Core. Check for the messaging problems. If the problem persists, we recommend that you perform a RESETMOD. If the RESETMOD fails, load the CEM using the Local Craft Interface (LCI).

Table 9-17 RESETMOD FW command responses

MAP output	Meaning and action
`Command rejected: Command not supported for this maintenance action`	**Meaning:** The command is not supported on the MG4000 SPM because the MG4000 autoloads from flash memory if it is at the firmware level. **Action:** None.

Examples

The following are examples of this command.

Table 9-18 Command examples

Command:	**> RESETMOD**
Description of task:	Restart the load in the CEMs flash memory.
MAP response:	`SPM 1 CEM 0 Reset: Request has been submitted.` `SPM 1 CEM 0 Reset: Command completed.`
Explanation:	The command has been completed successfully.

Table 9-18 Command examples

Command:	**> RESETMOD VIAMATE**
Description of task:	Restart the load in the target CEMs flash memory through the mate CEM.
MAP response:	`SPM 1 CEM 0 Reset: Request has been submitted.` `SPM 1 CEM 0 Reset: Command completed.`
Explanation:	The command has been completed successfully.
Command:	**> RESETMOD FW**
Description of task:	Restart the CEM from the firmware level.
MAP response:	`SPM 1 CEM 0 Reset: Request has been submitted.` `SPM 1 CEM 0 Reset: Command rejected. command is not supported for this maintenance action.`
Explanation:	This command is not supported on the MG4000 SPM because the MG4000 autoloads from flash memory if it is at the firmware level.

RTS

Purpose

The RTS command changes the state of a selected common equipment module (CEM) to in-service (INSV) from manual busy (ManB).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS: Return the selected CEM to service.

ALL option applies to all the selected CEMs (one or both).

Parms: [<ALL> {ALL}]

       [<Force> {Force}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 9-19 (Sheet 1 of 2)

Parameter	Value	Description
All	ALL	All the selected CEMs
Force	FORCE	
Prompt	NOPROMPT	Suppress the yes/no prompts

Table 9-19 (Sheet 2 of 2)

Parameter	Value	Description
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 CEM 0 RTS: Request has been submitted.

SPM 0 CEM 0 RTS: Command completed.

SPM 0 CEM 1 RTS: Request has been submitted.

SPM 0 CEM 1 RTS: Command completed.
```

Examples

The following are examples of this command.

```
>RTS

>RTS all

>RTS Nowait
```

Select

Purpose

The Select command selects a specified module (circuit pack) in a the SPM. The screen for the selected module is displayed. This command is analogous to the Post command. The Post command can be executed from the PM level as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SELECT: Select specified CPKs for maintenance

Parms: [<All CPKs> {AllCPKs}]

       [<All> {All}]

       {<UNIT? ... {0 to 27}]

       [<CPK Type>... {CEM [<All> {All}]

                           [<UNIT>... {0 TO 1}],

                      OC3 [<All> {All}]

                           [<UNIT>... {0 TO 1}],

                      DSP [<All> {All}]

                           [<UNIT>... {0 TO 27}],

                      VSP [<All> {All}]

                            [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 9-20

Parameter	Value	Description
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-27	DSP
Unit	0-27	VSP

MAP responses

The following are responses to this command.

Table 9-21

Response	Explanation and action
`The CEM, OC3, DSP, or VSP screen displays in response to the command.`	Depending on the parameters to the Select command, one or more modules are selected, and the first one in the set is displayed. The user can find out what is in the select set by way of the command listset. The next command is used to display the next one in the set. If more than one type of CPK are selected (for example, select DSP, all OC3 all), the select set is created in the order of CEM, OC3, DSP, and VSP even if DSP is specified before OC3.
`EITHER incorrect optional parameter(s) OR too many parameters.`	This response indicates that the Select command is issued with invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	

Examples

The following are examples of this command.

```
>Select CEM 0
```

```
>Select VSP 9
```

```
>Select DSP all

>Select allcpks

>Select CEM all OC3 0 DSP 0
```

Trnsl

Purpose

The Trnsl command provides the C-side link information for a common equipment module (CEM) in the SPM.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Trnsl: Display C-side link information
```

Parameters

None

MAP responses

The following are responses to this command.

```
Link 1: ENET 0  0  14  0; Status: NA

Link 2: ENET 1  0  27  1; Status: NA

Link 3: ENET 0  0  14  2; Status: NA

Link 4: ENET 1  0  27  3; Status: NA
```

The first two columns of the response indicate the link number. The four columns after ENET indicate ENET plane, ENET pair, ENET slot, and ENET link, respectively, to which a particular CEM number and link number are connected. The last column indicates the status of the link.

The possible values for the status are

- OK: link is in service
- NA: link is not available
- UR: link status is unreliable

Example

None

Tst

Purpose

The Tst command tests the selected module(s). This command invokes the diagnostic tests on the circuit pack. The <all> option applies to all the selected common equipment modules (CEM). If CEMs are selected using the command *>select cem all*, then *>Tst all* will run the tests on both CEMs. If the selection is done by *>select cem 0*, then *>Tst all* would only apply to CEM 0. This is essentially the same as executing the Tst command without any parameter. If the Tst command is executed without any parameter, tests would run on the CEM that currently displays on the screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Tst: Test the selected CEM

ALL option applies to all the selected CEMs (one or both).

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 9-22 (Sheet 1 of 2)

Parameter	Value	Explanation and action
All	ALL	All the selected CEMs
Prompt	NOPROMPT	Suppress the yes/no prompts

Table 9-22 (Sheet 2 of 2)

Parameter	Value	Explanation and action
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

Table 9-23

Response	Explanation and action
`Command rejected. The CEM is offline.`	The tests cannot be performed when the state of the CEM is offline.
`SPM 1 CEM 0 Test: Request has been submitted.` `SPM 1 CEM 0 Test: Command Completed.`	The test request was submitted and the command completed successfully.

`This operation will be executed on 2 CEMs`
`Please confirm ("YES", "Y", "NO", or "N"):`
`y`
 	
`SPM 1 CEM 0 Test: Request has been submitted.`
`SPM 1 CEM 0 Test: Command Completed.`
`SPM 1 CEM 1 Test: Request has been submitted.`
`SPM 1 CEM 1 Test: Command Completed.`
	The *tst all* command was executed after selecting both CEMs (select cem all). The test requests were submitted for both CEMs, and the command completed successfully.

Examples

The following are examples of this command.

```
>Tst
```

```
>Tst all
```

```
>Tst Nowait
```

SPMDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMDIR commands are as follows:

- Disp
- ListAlm
  - BRISC
  - SuperNode
- ListRes
- ListSet
- Next
- Post
- QueryPM
- Quit
- Select
- SPERFORM subdirectory
  - SPMACT subdirectory
    - Start
    - Stop
    - STRTLOG
    - STOPLOG
  - SPUSAGE subdirectory
    - Start
    - Stop
    - STRTLOG
    - STOPLOG

- Transl
- UPGRADE directory
  - BulkAbtk
  - BulkBsy
  - BulkLoad
  - BulkOffl
  - BulkRts
  - BulkSwct
  - Quit

To access directory

To access the SPMDIR level from the CI environment, type:

```
>MAPCI;MTC;PM;POST SPM <node_no>
```

or

```
>MAPCI;MTC;PM;POST SPM <spm_number> (0 to 63)
```

or

```
>MAPCI;MTC;PM;POST SPM all
```

This is an example of entering the command:

```
>MAPCI;MTC;PM;POST SPM 0
```

To return to CI

To return to the CI environment, type:

```
>QUIT ALL
```

SPM screen

The following illustrates the SPM screen.

```
  CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPM                                  SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM           2       2       7       0      11       0
 2 Post_                   SPM          0       2       2       0       2       0
 3 ListSet
 4 ListRes          SPM    3  ManB  Class: DMSCP
 5 Trnsl
 6                  Shlf0 SL A Stat  Shlf0 SL  A Stat Shlf1 SL A Stat  Shlf1  SL A Stat
 7                  -----  1 - ----  CEM 1  8  I ManB  VSP 0 1 I OffL   DSP 1  8 I CBsy
 8                  -----  2 - ----  OC3 0  9  A OffL  VSP 1 2 A OffL   --- -  9 - ----
 9                  -----  3 - ----  OC3 1 10  I OffL  --- - 3 - ----   --- - 10 - ----
10                  -----  4 - ----  --- - 11  - ----  --- - 4 - ----   --- - 11 - ----
11 Disp_            -----  5 - ----  --- - 12  - ----  --- - 5 - ----   --- - 12 - ----
12 Next             -----  6 - ----  --- - 13  - ----  --- - 6 - ----   --- - 13 - ----
13 Select_          CEM 0  7 A ManB  --- - 14  - ----  DSP 0 7 A OffL   --- - 14 - ----
14 QueryPM
15 ListAlm
16 PSLink
17 SPERFORM
18 Upgrade_

   14:12 >
```

Disp

Purpose

The Disp command displays all the peripheral modules that correspond to a given condition. A condition can be a state, an alarm, or a limit.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
DISP: Display ALL PMs in specified PM state.

DiagHist option displays a summary of diagnostic failures.

Parms: <Option> {STATE <state>  {SYSB,
                                 MANB
                                 OFFL,
                                 CBSY,
                                 ISTb,
                                 InSv},
                DIAGHIST}
                {<PM Type> {TM2,
                            TM4
                            ATM,
                            TM8,
                            MTM,
                            DCM,
                            OAU,
```

```
STM,
T8A,
TMA,
MMA,
TAN,
DES,
LGC,
DTC,
LTC,
SMR,
SMS,
SMU,
MSB7,
RMM,
IDTC,
ILGC,
ILTC,
PTM,
ADTC,
PDTC,
TDTC,
TLGC,
TLTC,
ALGC,
LIM,
LIU7,
PLGC,
```

```
                                        SPM,
                                        TMS,
                                        FP,
                                        AP,
                                        HSI2,
                                        DTCI,
                                        EIU,
                                        ICP,
                                        EXND,
                                        HSLR,
                                        ELIU,
                                        DTM,
                                        DFI,
                                        HLIU,
                                        NIU,
                                        CTM,
                                        SMA2,
                                        GPP,
                                        AIM,
                                        ALL}]
```

MAP responses

None

Example

None

ListAlm for BRISC

Purpose

The ListAlm command for BRISC displays to the MAP terminal the list of alarms that are pegged against the posted entity (SPM node, CEM, DSP, VSP, or OC3). The alarms display in decreasing order of severity (Critical, Major, Minor, No Alarm). The command also allows the user to select a particular severity and display only those alarms. The default value is to list all alarms pegged against the entity.

Note: This ListAlm command information is the same for each entity that can be posted (SPM node, CEM, DSP, VSP, or OC3).

The user can view only those alarms that are provisioned to “reportable" (the default value) or all alarms including those provisioned as “not to be reported".

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following is the syntax for the ListAlm command at the SPM node level:

```
>LISTALM CRLISTALM <option>
```

Parameters

The following table describes the parameters for the syntax.

Table 13-1 (Sheet 1 of 2)

Parameter	Value	Description
Option	CR	List all reportable Critical alarms posted against the given entity.
	MJ	List all reportable Major alarms posted against the given entity.
	MN	List all reportable Minor alarms posted against the given entity.

Table 13-1 (Sheet 2 of 2)

Parameter	Value	Description
	NA	List all reportable No Alarm alarms posted against the given entity. This parameter implies that an alarm can have a severity that is less than minor but still needs to be displayed. Usually, this is not be used.
	NRPT	Display the non-reportable alarms along with the reportable ones. This optional parameter can be used alone or in conjunction with each severity parameter and the full parameter described in the “MAP responses" table.

MAP responses

The following are responses to this command.

```
ListAlm: SPM <spm_number> (0 to 63)

<alarm_severity>   <alarm_name>   <alarm_action>
```

The following table describes the parameters for this command.

Table 13-2 (Sheet 1 of 2)

Parameter	Description
alarm_severity	Critical, Major, Minor, No Alarm
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Table 13-2 (Sheet 2 of 2)

Parameter	Description
alarm_name	A less than or equal to 8-character name for the alarm. The text “non" indicates there are no alarms to report.
alarm_action	The actions are as follows: • RPT indicates this alarm is provisioned to be reportable. It is used to distinguish between alarms provisioned to be reportable and those provisioned to be non-reportable. • NONRPT indicates this alarm is provisioned to be non-reportable. It is only displayed when the NRPT option is issued with the ListAlm command. • Blanks display in the alarm_action field instead of NONRPT when the ListAlm command is issued without the NRPT optional parameter. In addition, when an alarm is provisioned as non-reportable, the alarm name displays in response to the ListAlm command.
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Examples

The following examples are a series of command variances that illustrate what the display for the alarms would look like. This example uses fictitious alarm names.

The examples assume the alarms are pegged against the Node: nalm1 Critical, nalm2 Critical, nalm3 Major, nalm4 Minor, nalm5 Minor Non-Reportable, nalm6 No Alarm.

The CEM has the following alarms pegged against it: calm1 Critical, calm2 Minor Non-Reportable, calm3 Major.

The DSP has the following alarms pegged against it: dalm1 Minor, dalm2 Minor Non-Reportable, dlam3 Major.

The OC3 has the following alarms against it: oalm1 Major, oalm2 Minor, oalm3 Minor, oalm4 No Alarm non-reportable.

There are no alarms pegged against the VSP in this example.

The following are a series of command variances:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT


>mapci;mtc;pm;post spm 0;listalm MJ
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               NALM3       RPT


>mapci;mtc;pm;post spm 0;listalm MN
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
```

```
>mapci;mtc;pm;post spm 0;listalm NA

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
Minor               NALM5       NONRPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT

>mapci;mtc;pm;post spm 0;listalm MN NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
Minor               NALM5       NONRPT
```

```
>mapci;mtc;pm;post spm 0;select cem 0;listalm
ListAlm: SPM 0 CEM 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               None
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               CALM2       NONRPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm CR
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT


>mapci;mtc;pm;post spm 0;select cem 0;listalm MJ NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select DSP 0;listalm
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm CR
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM2       NONRPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm MJ NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

When alarms are listed with no alarms raised, the following displays:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               None
Minor               None
No_Alarm            None
```

ListAlm for SuperNode

Purpose

The ListAlm command for SuperNode displays the alarms associated with the SPM.

This command also applies to DMS Call Processing (DMSCP) and Inter-working (IW) class variants. However, the command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax:

```
ListAlm: Display alarms for the posted entity. All alarms can
be listed by severity by entering the command without parms or
by a single severity using parameters 1-4. The non-reportable
alarms can be included in either case.

This command provides the following options:

1. CR: List all Critical alarms.

2. MJ: List all Major alarms

3. MN: List all Minor alarms

4. NA: List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms: [<Option> {CR [<Action> {NRPT}],

                  MJ [<Action> {NRPT}],

                  MN [<Action> {NRPT}],

                  NA [<Action> {NRPT}],

                  NRPT}]
```

Parameters

The following table describes the parameters.

Table 13-3

Parameter	Value	Description
Option	CR	Critical alarms
	MJ	Major alarms
	MN	Minor alarms
	NA	No-Alarm alarms
	NRPT	Non-reportable alarms

MAP responses

The following are responses to the command.

```
ListAlm: SPM 0

SEVERITY    ALARM       ACTION

------------------------------

Critical    None

Major       None

Minor       None

No_Alarm    None
```

The first line of the response indicates the SPM number. The first column of the table is the severity, the second column would indicate the number of alarm for the given severity, and the third column indicates the action.

ListAlm command is invalid for posting the SMG4KDA class. The following table shows the map response.

Table 13-4

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

Examples

The following are examples of this command.

```
>ListAlm

>ListAlm CR

>ListAlm MJ

>ListAlm MN
```

ListRes

Purpose

The ListRes command displays a list of all the resources provided by all the digital signal processors (DSP) and voice signal processors (VSP) in the SPM. The list contains the datafilled and the actual resources provided by the SPM.

This command also applies to DMS Call Processing (DMSCP) and Inter-working (IW) class variants. However, the command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListRes: Display a list of resources for the SPM.
```

MAP responses

This following response lists total datafilled and actual resources for all the DSPs and VSPs in the SPM. The actual resources may be different from the datafilled resources if some of the DSPs or VSPs are not in-service (INSV).

```
COT     :   Datafilled:   0   Actual:   0

DTMF    :   Datafilled:  24   Actual:  24

ECAN    :   Datafilled:   0   Actual:   0

ToneSyn:   Datafilled: 128   Actual:   0

ABBIT   :   Datafilled:   0   Actual:   0

MF      :   Datafilled:   0   Actual:   0
```

ListRes command is invalid for posting the SMG4KDA class. The following table shows the map response.

Table 13-5

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

Example

None

ListSet

Purpose

The ListSet command lists the contents of the Post set.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
List the contents of the post setno

parm - the current pm type on the screen

pm type (i.e. LTC)ALL     - THE ENTIRE POST

SETPARMS: {<PARMS> {TM2,
                    TM4,
                    ATM,
\                   TM8,
                    MTM,
                    DCM,
                    OAU,
                    STM,
                    T8A,
                    TMA,
                    MMA,
                    TAN,
                    DES,
```

```
LGC,
DTC,
LTC,
SMR,
SMS,
SMU,
MSB7,
RMM,
IDTC,
ILGC,
ILTC,
PTM,
ADTC,
PDTC,
TDTC,
TLGC,
TLTC,
ALGC,
LIM,
LIU7,
PLGC,
SPM,
TMS,
FP,
AP,
HSI2,
DTCI,
```

```
                                EIU,
                                ICP,
                                EXND,
                                HSLR,
                                ELIU,
                                DTM,
                                DFI,
                                HLIU,
                                NIU,
                                CTM,
                                SMA2,
                                GPP,
                                AIM,
                                ALL}]
```

Parameters

None

MAP responses

None

Example

None

Next

Purpose

The Next command goes to the next of the selected peripheral modules.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Next: Step to the next PM in post set or to first PM of next
PM_type in post set

Parms: [<PM TYPE> {PMTYPE}]
```

Parameters

None

MAP response

None

Example

Next

Post

Purpose

The Post command displays peripheral modules (PM).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Post: Post specified PMs for maintenance

Parms: {<ALL PMs> {AllPMs}]

{<All> {All}]

{<PMNo> ... {0 to 2047}

{<PMType> ... {TM2 [{<ALL {All}]

                  [PMNO> ... {0 to 2047}],

               TM4 [{<ALL {All}]

                  [PMNO> ... {0 to 2047}],

               ATM [{<ALL {All}]

                  [PMNO> ... {0 to 2047}],

               TM8 [{<ALL {All}]

                  [PMNO> ... {0 to 2047}],

               MTM [{<ALL {All}]

                  [PMNO> ... {0 to 2047}],

               DCM [{<ALL {All}]

                  [PMNO> ... {0 to 511}],
```

```
OAU [{<ALL {All}}]
    [PMNO> ... {0 to 2047}],
STM [{<ALL {All}}]
    [PMNO> ... {0 to 2047}],
T8A [{<ALL {All}}]
    [PMNO> ... {0 to 2047}],
TMA [{<ALL {All}}]
    [PMNO> ... {0 to 2047}],
MMA [{<ALL {All}}]
    [PMNO> ... {0 to 2047}],
TAN [{<ALL {All}}]
    [PMNO> ... {0 to 2047}],
DES [{<ALL {All}}]
    [PMNO> ... {0 to 511}],
LGC [{<ALL {All}}]
    [PMNO> ... {0 to 255}],
DTC [{<ALL {All}}]
    [PMNO> ... {0 to 255}],
LTC [{<ALL {All}}]
    [PMNO> ... {0 to 255}],
SMR [{<ALL {All}}]
    [PMNO> ... {0 to 255}],
SMS [{<ALL {All}}]
    [PMNO> ... {0 to 255}],
SMU [{<ALL {All}}]
    [PMNO> ... {0 to 255}],
MSB7 [{<ALL {All}}]
```

```
    [PMNO> ... {0 to 9}],
RMM [{<ALL {All}]
    [PMNO> ... {0 to 254}],
IDTC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
ILGC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
ILTC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
PTM [{<ALL {All}]
    [PMNO> ... {0 to 2047}],
ADTC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
PDTC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
TDTC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
TLGC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
TLTC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
ALGC [{<ALL {All}]
    [PMNO> ... {0 to 255}],
LIM [{<ALL {All}]
    [PMNO> ... {0 to 17}],
LIU7 [{<ALL {All}]
    [PMNO> ... {0 to 511}],
```

```
PLGC [{<ALL {All}]
    [PMNO> ... {0 to 55}],
SPM [{<ALL {All}]
    [PMNO> ... {0 to 63}],
TMS [{<ALL {All}]
    [PMNO> ... {0 to 255}],
FP [{<ALL {All}]
    [PMNO> ... {0 to 99}],
AP [{<ALL {All}]
    [PMNO> ... {0 to 99}],
HSI2 [{<ALL {All}]
    [PMNO> ... {0 to 255}],
DTCI [{<ALL {All}]
    [PMNO> ... {0 to 2047}],
    EIU [{<ALL {All}]
    [PMNO> ... {0 to 511}],
    ICP [{<ALL {All}]
    [PMNO> ... {0 to 255}],
    EXND [{<ALL {All}]
    [PMNO> ... {0 to 31}],
    HSLR [{<ALL {All}]
    [PMNO> ... {0 to 511}],
    ELIU [{<ALL {All}]
    [PMNO> ... {0 to 511}],
    DTM [{<ALL {All}]
    [PMNO> ... {0 to 63}],
    DFI [{<ALL {All}]
```

```
                          [PMNO> ... {0 to 255}],
                          HLIU [{<ALL {All}]
                          [PMNO> ... {0 to 511}],
                          NIU [{<ALL {All}]
                          [PMNO> ... {0 to 29}],
                          CTM [{<ALL {All}]
                          [PMNO> ... {0 to 511}],
                          SMA2 [{<ALL {All}]
                          [PMNO> ... {0 to 255}],
                          GPP [{<ALL {All}]
                          [PMNO> ... {0 to 255}],
                          AIM [{<ALL {All}]
                          [PMNO> ... {0 to 63}],
        [<state> ...{SysB,
                     ManB,
                     OffL,
                     CBsy,
                     ISTb,
                     InSv}]
        {<alarm> ...{Minor,
                     Major,
                     Crit}]
```

Parameters

None

MAP responses

None

Example

None

PostCLS

Purpose

The PostCLS command posts SPMs by class variants for maintenance.

Command type

Non-Menu

Command target

ALL

Command availability

Res

Command syntax

Parameters

The following table describes the command parameters.

Table 13-6

Parameter	Value	Description
CLASS_TYPE	DMSCPI WS MG4KDA	This field describes the class variants of the SPM to be posted.

MAP responses

The following table describes the responses to this command.

Table 13-7

Response	Explanation and action
`No SPMs of class DMSCP found.`	No DMSCP type SPMs are datafilled in table MNNODE.

Example

The following table provides examples of this command.

Table 13-8

Response	Explanation and action
`The postset for the posted SPMs contain all the DMSCP type SPMs in the office. This causes the SPM MAP level screen to change to the first DMSCP SPM in the postset.`	Post SPMs by class variant for maintenance. Enter command POSTCLS DMSCP

QueryPM

Purpose

The QueryPM command displays miscellaneous information about the SPM, such as software release, module software loads, shelf number, slot number, unit number, and state and activity status for all the datafilled modules (CEM, DSP, VSP, OC3, ATM, or DLC).

This command also applies to DMS Call Processing (DMSCP) and Inter-working (IW) class variants. However, the command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

Command type

Menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
QueryPM: Display miscellaneous information about the SPM.

Parms: [<OPTION> {FLT [<POSTSET> {All}],

                  FILES}]
```

Parameters

Parameters are described in the following table.

Table 13-9

Parameter	Value	Description
Option	FLT	Fault (optional). This command provides a list of devices, on the posted SPM, that are currently reporting a fault (FLT) condition.
	FLT ALL	Fault All (optional). This command provides a list of devices, on all the posted SPMs that are currently reporting a fault condition regardless of the SPM currently displayed on the MAP.
	FILES	Files (optional). This command displays the default load names and the currently running loads in all devices on the posted SPM. It also displays the Flash Loader's load file for each device that supports Flash Loader functionality. Additionally, it displays the image file for each device on the posted SPM.

MAP responses

Neither the QueryPM command nor any of its options have required parameters; therefore, the user is never prompted for additional information when issuing any variant of the QueryPM command.

In all cases, the QueryPM options either output the data requested or output a message stating that the data are unavailable.

The following are responses to the command.

Response

For "QUERYPM request response," the command is as follows:

```
>MAPCI;MTC;PM;POST    SPM <SPMNo>

QUERYPM
```

Note: The map response shown above for the QUERYPM command is without any options

```
SPM 0 OffL Location: Site HOST Floor 3
```

```
DSP  3 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot  3

CEM  0 OffL Act   Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot  7

CEM  1 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot  8

OC3  0 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot  9

OC3  1 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot 10

DSP 12 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot 12

DSP 13 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot 13

VSP 14 OffL InAct Loc: Row A  FrPos 13 ShPos  6 ShId 0 Slot 14
```

Explanation

The first line show the PM type, number, state and location. The second line shows that slot 3 in shelf 0 contains DSP 3, which is in OffL state and Inactive. Detailed location information is also displayed in the same line. All the remaining lines are similar to the third line for various modules

Perform alarm clearing procedures to clear system faults if necessary. For more information on clearing alarms, refer to the Alarm Clearing Procedures Reference Manual of your product.

Response

For “QUERYPM FLT request response - when faults exist,” the command is as follows. The response shown is with SPM 1 displayed at the MAP.

```
>MAPCI;MTC;PM; POST   SPM <SPMNo>

QUERYPM FLT

SPM 1 ISTb       Alarm: ISTb  Severity: Minor   Action: RPT

CEM 0 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

CEM 1 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

OC3 0 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

OC3 1 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

VSP 0 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

VSP 1 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

DSP 0 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT

DSP 1 ISTb InAct Alarm: ISTb  Severity: Minor   Action: RPT
```

Explanation

The command output shows the alarm conditions on all datafilled modules, such as CEM, DSP, VSP, OC3, ATM, and DLC, for the single SPM posted on the MAP. The command output lists only those modules with raised alarms.

The response to this command is the same on SuperNode, BRISC, and XACore.

The fault report displays the following data for all faulty devices:

- device name
- alarm type
- alarm severity

System action

System either provides a RPT (report) or a NORPT (no report). RPT indicates that the system reports the alarm, and NORPT indicates that the system does not report the alarm.

User action

Perform alarm clearing procedures to clear system faults. For more information on clearing alarms, refer to the Alarm Clearing Procedures of your product.

Response

For “QUERYPM FLT request response - when no faults exist”, the command is as follows:

```
>MAPCI;MTC;PM;POST   SPM <SMPNo>

QUERYPM FLT

No faults exist on the post SPM
```

Explanation

This response indicates that zero faults exist on the posted SPM or any of its devices.

System action

N/A

User action

N/A

Response

For “QUERYPM FLT ALL response request -- when faults exist,” and when all SPMs are posted at the MAP, the command is as follows. The command shows the faults of all datafilled modules for all SPMs posted at the MAP.

```
>MAPCI;MTC;PM;POST   SPM ALL

QUERYPM FLT ALL


SPM 0:

SPM 0  ISTb       Alarm: ISTb    Severity: Minor   Action: RPT

CEM 0 ISTb InAct  Alarm: ISTb    Severity: Minor   Action: RPT

CEM 1 ISTb Act    Alarm: ISTb    Severity: Minor   Action: RPT

OC3 0 ISTb Act    Alarm: ISTb    Severity: Minor   Action: RPT

OC3 1 ISTb InAct  Alarm: ISTb    Severity: Minor   Action: RPT

VSP 0 ISTb Act    Alarm: ISTb    Severity: Minor   Action: RPT

VSP 1 ISTb InAct  Alarm: ISTb    Severity: Minor   Action: RPT

DSP 0 ISTb Act    Alarm: ISTb    Severity: Minor   Action: RPT

DSP 1 ISTb InAct  Alarm: ISTb    Severity: Minor   Action: RPT


SPM1:

SPM 1 ISTb        Alarm: ISTb    Severity: Minor   Action: RPT

CEM 0 ISTb InAct  Alarm: ISTb    Severity: Minor   Action: RPT

CEM 1 ISTb Act    Alarm: ISTb    Severity: Minor   Action: RPT

DSP 1 ManB InAct  Alarm: MANB    Severity: Major   Action: RPT

DSP_GRP    1      Alarm: NOSPARE Severity: Major   Action: RPT
```

Explanation

The FLT ALL option lists all alarm conditions on all datafilled modules for all SPMs in the current post set, regardless of the SPM currently displayed at the MAP. For example, if a user posts all SPMs (using command POST SPM ALL) and then executes the QUERYPM FLT ALL command, the fault information displays on every SPM in the office, and only modules with raised

alarms are displayed. However, if an SPM has no modules reporting alarms, then a message displays indicating that the SPM has no faults.

The fault report displays the following data for all faulty devices:

- device name
- alarm type
- alarm severity

System action

System either provides a RPT (report) or a NORPT (no report). RPT indicates that the system reports the alarm, and NORPT indicates that the system does not report the alarm.

User action

Perform alarm clearing procedures to clear system faults. For more information on performing alarm clearing procedures, refer to the Alarm Clearing Procedures of your product.

Response

For “QUERYPM FLT ALL response request -- when no faults exist,” and all SPMS are posted at the MAP, the command is as follows:

```
>MAPCI;MTC;PM;POST   SPM ALL

QUERYPM FLT ALL


SPM 0:

No faults exist on the posted SPM


SPM 1:

No faults exist on the posted SPM


SPM 2:

No faults exist on the posted SPM


SPM 3:
```

```
No faults exist on the posted SPM
```

Explanation
This response indicates that zero faults exist on the posted SPM or any of its devices.

System action
N/A

User action
N/A

Response
A usage example for the QUERYPM FILES command follows:

```
>mapci nodisp; mtc; pm; post spm 1

SPM:

>querypm files

SPM  1 ISTb
CEM  0 ISTb InAct  Default Loadname: CEM15CQ
                   Default Filename: CEM15CQ_010068
                   Running Load:     CEM15CQ_010068
                   Load in Flash:    CEM15CQ_010068
CEM  1 ISTb Act    Default Loadname: CEM15CQ
                   Default Filename: CEM15CQ_010068
                   Running Load:     CEM15CQ_010068
                   Load in Flash:    CEM15CQ_010068
.............................................................
.............................................................
DSP  2 InSv Act    Default Loadname: DSP15DO
                   Default Filename: DSP15DO_010092
                   Running Load:     DSP15DO_010092
                   Load in Flash:    DSP15DO_010092
DSP  3 InSv Act    Default Loadname: DSP15DO
                   Default Filename: DSP15DO_010092
                   Running Load:     DSP15DO_010092
                   Load in Flash:    DSP15DO_010092
Running Spectrum Load Release : SP15.3.1
```

Explanation
A display of the load lineup in the SPM is shown, followed by the spectrum load release name running in the SPM.

Note: QUERYPM FILES does not display the load release name for SPM variants other than DMSCP.

System action
N/A

User action
N/A

Response
A usage example for the QUERYPM FILES command follows:

```
>mapci nodisp; mtc; pm; post spm 4

SPM:

>querypm files

SPM 4 ISTb
CEM  0 ISTb InAct  Default Loadname: CEM15CQ
                   Default Filename: CEM15CQ_010068
                   Running Load:     CEM15CQ_010068
                   Load in Flash:    CEM15CQ_010068
CEM  1 ISTb Act    Default Loadname: CEM15CQ
                   Default Filename: CEM15CQ_010068
                   Running Load:     CEM15CQ_010068
                   Load in Flash:    CEM15CQ_010068
.............................................................
.............................................................
DSP  2 InSv Act    Default Loadname: DSP15DP
                   Default Filename: DSP15DP_010093
                   Running Load:     DSP15DP_010093
                   Load in Flash:    DSP15DP_010093
DSP  3 InSv Act    Default Loadname: DSP15DP
                   Default Filename: DSP15DP_010093
                   Running Load:     DSP15DP_010093
                   Load in Flash:    DSP15DP_010093

Running Spectrum Load Release : Load Lineup of this SPM does not
match with any of the load releases datafilled in table
SPMLDVAL.
```

Explanation
A display of the load lineup in the SPM is shown, the QUERYPM FILES command then attempts to display the running spectrum load release name for the posted DMSCP SPM however, the device loads in a DMSCP SPM do not match any of the load release lineups datafilled in table SPMLDVAL.

Note: QUERYPM FILES does not attempt to display the load release name for SPM variants other than DMSCP.

System action
N/A

User action
N/A

Response

A usage example for the QUERYPM FILES command for an MG4000 follows:

```
>mapci nodisp; mtc; pm; post spm 5

SPM:

>querypm files

SPM 5 ISTb
CEM  0 ISTb InAct  Default Loadname: MG415CQ
                   Default Filename: MG415CQ_010068
                   Running Load: MG415CQ_010068
                   Load in Flash: MG415CQ_010068
CEM  1 ISTb Act    Default Loadname: MG415CQ
                   Default Filename: MG415CQ_010068
                   Running Load:     MG415CQ_010068
                   Load in Flash:    MG415CQ_010068
.............................................................
.............................................................
DSP  2 InSv Act    Default Loadname: DSP15DP
                   Default Filename: DSP15DP_010093
                   Running Load:     DSP15DP_010093
                   Load in Flash:    DSP15DP_010093
DSP  3 InSv Act    Default Loadname: DSP15DP
                   Default Filename: DSP15DP_010093
                   Running Load:     DSP15DP_010093
                   Load in Flash:    DSP15DP_010093
```

Explanation

A display of the load lineup in the SPM is shown.

System action

N/A

User action

N/A

Response

A usage example for the QUERYPM FILES command where all the CEMs and RMs of an SPM are out of service follows:

```
>mapci nodisp; mtc; pm; post spm 4

SPM:

>querypm files

SPM 5 SysB
CEM  0 SysB Act    Default Loadname: CEM17BC
                   Default Filename: CEM17BC_010028
                   Running Load:     Unable to contact CEM
```

```
                    Load in Flash:    Unable to contact CEM
CEM  1 SysB InAct   Default Loadname: CEM17BC
                    Default Filename: CEM17BC_010028
                    Running Load:     Unable to contact CEM
                    Load in Flash:    Unable to contact CEM
.............................................................
.............................................................
DSP  0 CBsy Act     Default Loadname: DSP17BC
                    Default Filename: DSP17BC_010028
                  Running Load:     Invalid host node status
                  Load in Flash:    Invalid host node status
DSP  1 CBsy InAct   Default Loadname: DSP17BC
                    Default Filename: DSP17BC_010028
                  Running Load:     Invalid host node status
                    Load in Flash:    Invalid host node status

Running Spectrum Load Release : Unable to contact the devices.
The requested data cannot be retrieved.
```

Explanation

The CEMs and RMs of the SPM are out of service so the running loads in each of the devices cannot be determined and the spectrum load release can also not be displayed.

System action

N/A

User action

N/A

Examples

The following are examples of the QUERYPM command.

Example 1

```
QUERYPM FLT
```

Example 2

```
QUERYPM FLT

No faults exist
```

Example 3

```
QUERYPM FLT ALL

No faults exist on the posted SPM
```

Example 4

```
QUERYPM FILES
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-10

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Select

Purpose

The Select command selects a specified module (circuit pack) in SPM. The screen for the selected module is displayed. This command is analogous to the Post command and one level below the Post command. The Post command can be executed from the PM level as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SELECT: Post specified CPKs for maintenance

Parms:   [<All CPKs> {AllCPKs}]

         [<CPK Type>... {CEM [<All> {All}]
                             [<UNIT>... {0 TO 1}],

                        OC3 [<All> {All}]

                            [<UNIT>... {0 TO 1}],

                        DSP [<All> {All}]

                            [<UNIT>... {0 TO 27}],

                        VSP [<All> {All}]

                            [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 13-11

Parameter	Value	Description
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-27	DSP
Unit	0-27	VSP

MAP responses

The following are responses to this command.

Table 13-12

Response	Explanation and action
`The CEM, OC3, DSP, or VSP screen displays in response to the command.`	Depending on the parameters to the Select command, one or more modules are selected, and the first one in the set is displayed. The user can find out what is in the select set by way of the command listset. The next command is used to display the next one in the set. If more than one type of CPK are selected (for example, select DSP all OC3 all), the select set is created in the order of CEM, OC3, DSP, and VSP even if DSP is specified before OC3.
`EITHER incorrect optional parameter(s) OR too many parameters.`	The select command is issued with invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

Examples

The following are examples of this command.

```
>Select CEM 0

>Select VSP 9

>Select DSP all

>Select allcpks

>Select CEM all OC3 0 DSP 0
```

Trnsl

Purpose

The Trnsl command provides the C-side link information for the SPM.

This command also applies to DMS Call Processing (DMSCP) and Inter-working (IW) class variants. However, the command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Trnsl: Display C-side link information.
```

MAP responses

The following are responses to this command.

```
CEM 0 Link 1: ENET 0  0  14  0; Status: NA

CEM 0 Link 2: ENET 1  0  27  1; Status: NA

CEM 0 Link 3: ENET 0  0  14  2; Status: NA

CEM 0 Link 4: ENET 1  0  27  3; Status: NA

CEM 1 Link 1: ENET 1  0  14  0; Status: NA

CEM 1 Link 2: ENET 0  0  27  1; Status: NA

CEM 1 Link 3: ENET 1  0  14  2; Status: NA

CEM 1 Link 4: ENET 0  0  27  3; Status: NA
```

The first four columns indicate the common equipment module (CEM) number and link number. The four columns after ENET indicate ENET plane, ENET pair, ENET slot, and ENET link, respectively, to which a particular CEM number and link number are connected. The last column indicates the status of the link.

The possible values for the status are

- OK: link is in service
- NA: link is not available
- UR: link status is unreliable

Response

Trsl command is invalid for posting the SMG4KDA class. The following table shows the map response.

Table 13-13

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

Example

None

SPERFORM

The SPERFORM (SPM performance measurement) is a subdirectory of the Spectrum Peripheral Module (SPM). The SPERFORM subdirectory is accessed from the SPMDIR directory.

The SPERFORM subdirectory contains the following two subdirectories:

- SPMACT (SPM module activity)
- SPUSAGE (SPM USAGE)

The SPERFORM tool is a MAPCI-based tool that serves as an umbrella for several subtools. These tools provide statistical analysis on the SPM peripheral.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM
```

or

```
>MAPCI;MTC;PM;Post SPM all;SPERFORM
```

To return to CI

```
>QUIT
```

SPERFORM screen

The following illustrates the SPERFORM screen.

```
 CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
  M        M                   *C*                     *C*


SPERFORM                          SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                  PM          1       0       8       0      10       0
 2 SPMAct                SPM         0       0       2       0       3       0
 3 SPUSAGE
 4                  SPM    3  ISTb   Loc: Site HOST Floor   5 Row E  FrPos  8
 5                  LOAD NAME: CEM0013
 6                  STATUS:             REASON:                 LOGS:     TIME:
 7
 8
 9
10
11
12
13
14
15
16
17
18

   14:12 >
```

Additional information

This command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

The following response displays if the user posts class SMG4KDA.

Table 13-14

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

SPMACT

The SPMACT (SPM activity counting) tool is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPMACT commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPMACT tool provides users with information about the occupancy of the CEM processor, origination and termination counts, and real-time in the CEM processor.

SPMACT primarily measures the occupancy of the CEM processor in a given SPM. The occupancy of a processor is the percentage of time actually spent working over a specified time interval. SPMACT measures the occupancy of the SPM and separates the measurements into the following categories:

- System: Highest priority in the SPM system. It is overhead associated with system sanity checks and restart initialization
- Application: This class refers to call processing and resource management within the SPM system
- Background: This class refers to low priority maintenance, operational measurements (OM) scanning, and terminal I/O (Command Interpreter)

Origination and termination counts are collected by SPMACT. This information helps technicians understand the relationship between traffic volume and processor occupancy.

The number of MF and DTMF resources being used is also reported along with the number available and the peak number reported during the time the tool is in use.

The SPMACT tool also collects data on

- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks

- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

In addition to providing data on the MAPCI level, updated every minute, this tool generates SPRF670 logs that are a compilation of the tool's results from the time the user enables SPMACT until it is disabled. Each line of the log corresponds to a performance measurement taken every minute by the SPMACT tool. Logs SPRF670 and SPRF671 generate every 15 minutes from the time the tool starts and keep generating until the timer runs out, or the tool stops. These logs are found on the CM through LOGUTIL.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPMACT
```

To return to CI

```
>QUIT
```

SPMACT screen

The following illustrates the SPMACT screen, that the user accesses from the SPERFORM screen.

```
 CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
  M        M                   *C*                     *C*


SPMACT                          SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                  PM        0       0       8       0      11       0
 2 Strt                  SPM       0       0       2       0       3       0
 3 Strtlog
 4 Stoplog      SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop         LOAD NAME: CEM0013
 6              STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                       SYSTEM  APPLICATION      BACKGROUND
 8              CEM
 9              CEMAVG
10                   ORIG        ORIGAVG        TERM           TERMAVG
11                                MF    DTMF      ECAN         COT      TONE
12              AVAIL
13              INUSE
14              HIGH
15
16
17
18

   14:12 >
```

Quit (SPMACT level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-15

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

START (SPMACT level)

Purpose

The START command initializes the SPMACT tool (SPM activity counting tool) for a variable amount of time. SPMACT captures the following information:

- System Class Occupancy
- Average System Class Occupancy
- Application Occupancy
- Average Application Class Occupancy
- Background Class Occupancy
- Average Background Class Occupancy
- Originations
- Average Originations
- Terminations
- Average Terminations
- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks
- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPMACT display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 13-16

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPMACT tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 13-17

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPMACT level)

Purpose

The STOP command discontinues the SPMACT tool (SPM activity counting tool). At that time, the SPM completes the SPMACT log, if previously enabled. The SPMACT log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPMACT tool (assuming the user did not use STOPLOG).

The SPMACT display is updated to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-18

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPMACT level)

Purpose

The STRTLOG command enables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to ON and begins the SPMACT log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 670 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-19

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPMACT level)

Purpose

The STOPLOG command disables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool was running with logs ON, the STOPLOG command causes the CM to generate an SPRF 670 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-20

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

SPUSAGE

The SPUSAGE (SPM UniverSal Activity Gauging Element) is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPUSAGE commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPUSAGE tool collects information on call processing events that occur in the SPM. These events may be messages, logs, or OMs. This information is useful for monitoring the activity on the SPM from a functional view and enables the user to detect any processing difficulties on the SPM.

The results can be used to pinpoint problems and find appropriate solutions. In addition to on-screen information, the SPUSAGE tool outputs SPRF 671 logs, which are a summary of the samples taken every minute during the time the tool is activated. The logs generate every 15 minutes until the timer runs out or the tool stops.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPUSAGE
```

To return to CI

```
>QUIT
```

SPUSAGE screen

The following illustrates the SPUSAGE screen that the user accesses from the SPERFORM screen.

```
  CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPUSAGE                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                      0       0       8       0      11       0
 2 Strt          SPM                     0       0       2       0       3       0
 3 Strtlog
 4 Stoplog      SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop         LOAD NAME: CEM0013
 6              STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                       SYSTEM  APPLICATION      BACKGROUND
 8
 9              ABDN       EXIT       CONF       REL_CAL      TX_FAIL     DTMF_DNY
10
11              MF_DNY     NET_PAR    NET_INTG   NET_FND      NET_NFND
12
13              ECAN_DNY   COT_DNY    TONE_DNY
14
15
16
17
18

    14:12 >
```

Quit (SPUSAGE level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-21

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

START (SPUSAGE level)

Purpose

The START command starts the SPUSAGE (SPM universal activity gauging element) tool. This tool captures the following information:

- abandon message (ABDN)
- exit message (EXIT)
- confusion messages (CONF)
- release call messages (REL_CAL)
- parity error (NET_PAR)
- integrity lost (NET_INTG)
- transmit fail (TX_FAIL)
- network integrity found (NET_FND)
- network integrity not found (NET_NFND)
- ECAN allocation denied during a particular minute (ECAN_DNY)
- COT allocation denied during a particular minute (COT_DNY)
- TONE allocation denied during a particular minute (TONE_DNY)

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPUSAGE display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 13-22

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPUSAGE tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 13-23

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPUSAGE level)

Purpose

The STOP command discontinues the SPUSAGE (SPM universal activity gauging element) tool. At that time, the SPM completes the SPUSAGE log, if previously enabled. The SPUSAGE log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPUSAGE tool (assuming the user did not use STOPLOG).

The SPM updates the SPUSAGE display to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOP
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-24

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPUSAGE level)

Purpose

The STRTLOG command enables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to ON and begins the SPUSAGE log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 671 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-25

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPUSAGE level)

Purpose

The STOPLOG command disables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool is running with logs ON, the STOPLOG command causes the CM to generate an SPRF 671 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-26

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

UPGRADE

The UPGRADE MAP level displays the bulk maintenance commands, allowing the user to perform the following actions on all SPMs in an office:

- bulk abort (bulk maintenance requests only)
- bulk busy (change the state of the selected CEMs to ManB)
- bulk load (load all the inactive units of all the Insv SPMs in an office)
- bulk offline (change the state of the selected CEMs to offline)
- bulk return to service (change the state of all selected CEMs to InSv from ManB)
- bulk swact (Swact all selected CEMs)

The UPGRADE directory is accessed from the SPMDIR directory. Its commands are as follows:

- BulkAbtk
- BulkBsy
- BulkLoad
- BulkOffl
- BulkRts
- BulkSwct
- Quit

To access the directory

To access the UPGRADE level from the CI environment, type:

```
>MAPCI;MTC;PM;POST SPM <node_no>;UPGRADE
```

or

```
>MAPCI;MTC;PM;POST SPM <spm_number>;UPGRADE
```

This is an example of entering the command:

```
>MAPCI;MTC;PM;POST SPM 0;UPGRADE
```

or

```
>MAPCI;MTC;PM;POST SPM ALL;UPGRADE
```

To return to CI

To return to the CI environment, type:

```
>QUIT ALL
```

UPGRADE screen

The following is an example of the UPGRADE screen that the user accesses from the SPM screen.

```
   CM      MS    IOD     Net      PM     CCS             Trks    Ext     APPL
  CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
    M        M                   *C*                     *C*


UPGRADE                          SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                  PM         0       2       7       0      11       0
 2                       SPM        0       2       0       0       2       0
 3
 4
 5
 6
 7 BulkBsy_
 8 BulkRts_
 9 BulkOffl_
10 BulkLoad_
11
12
13
14
15
16 BulkSwct_
17
18 BulkAbtk_
  CMAP5
 Time 12:35
```

Additional information

The bulk maintenance commands are not necessarily done entirely in parallel. There are resource limits that can prevent this from happening. For example, if all 56 SPMs are loaded at one time, the system loads up SPMs in groups. The maximum number of SPMs in each group is determined by a “maximum concurrency limit" for the integrated node maintenance (INM) system agent.

This command also applies to DMS Call Processing (DMSCP) and Inter-working (IW) class variants. However, the command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

The following response displays if the user posts class SMG4KDA.

Table 13-27

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

BulkAbtk (UPGRADE level)

Purpose

The BulkAbtk command aborts all bulk maintenance currently running on SPMs in an office.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Res

Command syntax

The following is an example of command syntax.

```
BulkAbtk: Aborts the commands currently executing.

Parms: [<Prompt Option> {NOPROMPT}]

       [<Noreply option> {NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 13-28

Parameter	Value	Description
Options	NOPROMPT	Indicates that the user does not wish any prompting messages to be displayed. Response to all prompts defaults to “Yes.”
	NOREPLY	Indicates that the user does not desire a response from execution of the command.

MAP responses

The following are responses to the command.

Table 13-29

Response	Explanation and action
`BulkAbtk: This command will abort all bulk maintenance currently running on posted units of SPMs in the office. Do you wish to continue? (Please confirm (“YES”, “Y’, “NO”, or “N”):`	BulkAbtk command has been issued. The user must choose whether or not to continue.
`BulkAbtk: Command Accepted. In Progress.`	The command is accepted.
`BulkAbtk: Command rejected.`	The command is rejected.
`BulkAbtk: SubCommand passed. Command completed. SPM x Unit y.`	The SPM unit has successfully performed the request.

`Request has been submitted.`
`BulkAbtk: Command Rejected. Command Failed. Completed.`
`No bulk maintenance to abort.`
	The BulkAbtk command was issued when no bulk maintenance was in progress.

`BulkAbtk: Command failed. Activity failed.`	The abort failed.

Example

The following is an example of this command.

```
>BULKABTK
```

BulkBsy (UPGRADE level)

Purpose

The BulkBsy command is used to change the state of the selected common equipment module (CEM) of the selected SPMs to the ManB state. The BulkBsy command can be used to change the state from Offl, InSv, ISTb, or SysB to ManB.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bsy: Busy the posted node or one of its units.

Parms: <Busy What?> {PM,

                    UNIT <Unit Number> {0 TO 1},

                    INACTIVE,

                    ACTIVE}

       [<Force Option> {FORCE}]

       [<Prompt Option> {NOPROMPT}]

       [<Noreply option> {NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 13-30

Parameter	Value	Description
Options	FORCE	Performs a busy force on selected CEMs.
	NOPOMPT	Indicates that the user does not wish any prompting messages to be displayed. Response to all prompts defaults to “Yes.”
	NOREPLY	Indicates that the user does not desire a response from execution of the command.

MAP responses

The following are responses to the command.

Table 13-31 (Sheet 1 of 2)

Response	Explanation and action
`Warning: A Bsy Force action on the Active unit will cause a switch of activity and may impact services on this node. Do you wish to continue? Please confirm (“YES”, “Y”, “NO”, or “N”):`	The BulkBsy command has been issued. The user must choose whether or not to continue.
`BulkBsy: Command Accepted. In Progress.`	The command is accepted.
`BulkBsy: Command rejected.`	The command is rejected.
`BulkBsy: SubCommand passed. Command completed. SPM x Unit y`	The SPM unit has successfully performed the request.
`BulkBsy: SubCommand failed. No comment. SPM x Unit y`	The SPM unit failed to perform the request.
`BulkBsy: SubCommand failed. Node/Unit is in an invalid state. SPM x Unit y`	The unit is not in a valid state.
`BulkBsy: SubCommand failed. Maintenance already in progress. SPM x Unit y`	The unit is already performing some type of maintenance.
`BulkBsy: SubCommand failed. Change of state in progress. SPM x Unit y`	A change of state is already in progress.
`BulkBsy: SubCommand failed. Loading activity in progress. SPM x Unit y`	The unit is loading.

Table 13-31 (Sheet 2 of 2)

Response	Explanation and action
`BulkBsy: SubCommand aborted. SPM x Unit y`	The request is aborted.
`BulkBsy: SubCommand failed. The node is not accessible.`	The node is in an inaccessible state, such as Offl.

Example

The following are examples of this command.

```
>BULKBSY UNIT 0 FORCE
```

BulkLoad (UPGRADE level)

Purpose

The BulkLoad command simultaneously loads all the inactive units of all the Insv SPMs in an office. The command also enables the user to perform loading for selected CEMs. A summary report is displayed showing the outcome of the request on each individual CEM.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LOADALL: Load the inactive unit of all in-service SPMs in an
office.

Parms: <FILENAME> STRING

       <LOAD_OPTION> {INSVLD}

       [<Noprompt option> {NOPROMPT}]

       [<Noreply option> {NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 13-32 (Sheet 1 of 2)

Parameter	Value	Description
FILENAME	String up to 32 characters	Displays the filename.
	INSVLD	Performs INSV load on all Inactive CEMs.

Table 13-32 (Sheet 2 of 2)

Parameter	Value	Description
Options	NOPOMPT	Indicates that the user does not wish any prompting messages to be displayed. Response to all prompts defaults to “Yes.”
	NOREPLY	Indicates that the user does not desire a response from execution of the command.

MAP responses

The following are responses to the command.

Table 13-33

Response	Explanation and action
`Invalid load filename.`	This response displays when the user enters a filename that is not in context.
`Bulkload: Command Accepted. In progress.` `In-service loading is started on all inactive CEMs in the office.`	The command is accepted and loading is taking place.
`BulkLoad: Command rejected.`	This response displays when the BulkLoad command is rejected.
`BulkLoad: SubCommand passed. Command completed. SPM x Unit y`	This response displays for each eligible SPM x, whose in-service Inactive unit is y.
`BulkLoad: Command passed. Command completed.`	This response displays once the loading of all CEMs completes.

Example

The following are examples of this command.

```
>BULKLOAD CEM14AF_010005
```

```
>BULKLOAD DSP0010_000001
```

BulkOffl (UPGRADE level)

Purpose

The BulkOffl command is used to change the state of the common equipment modules (CEM) of the selected SPMs to offline. The BulkOffl command applies only when the state of the CEM is ManB. Note that the ManB to Offl transition applies to both CEMs (the whole node) even if only one CEM has been selected.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Res

Command syntax

The following is an example of command syntax.

```
BulkOffl: Offline all the posted SPMs.

Parms: [<Prompt Option> {NOPROMPT}]

       [<Noreply option> {NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 13-34

Parameter	Value	Description
Options	NOPOMPT	Indicates that the user does not wish any prompting messages to be displayed. Response to all prompts defaults to “Yes.”
	NOREPLY	Indicates that the user does not desire a response from execution of the command.

MAP responses

The following are responses to the command.

Table 13-35

Response	Explanation and action
`BulkOffl: ManB to Offl transition would apply to the all the units of Posted SPM nodes. Do you wish to continue? Please confirm (“YES”, “Y”, “NO”, or “N”):`	BulkOffl command has been issued. The user must choose whether or not to continue.
`BulkOffl: Command Accepted. In Progress.`	The command is accepted.
`BulkOffl: SubCommand passed. Command completed.`	An SPM unit has successfully performed the request.
`BulkOffl: Command rejected.`	The command has been rejected.
`BulkOffl: Command failed.`	The command failed.
`BulkOffl: SubCommand failed. No comment.`	An SPM unit failed to perform the request.
`BulkOffl: SubCommand failed. The node is not accessible.`	The node is in an inaccessible state, such as Offl.
`BulkOffl: SubCommand failed. Node is in an invalid state.`	The node is not in a valid state.
`BulkOffl: SubCommand failed. Maintenance already in progress.`	The unit is already performing some type of maintenance.
`BulkOffl: SubCommand failed. Change of state in progress.`	A change of state is already in progress.
`BulkOffl: SubCommand failed. Loading activity in progress.`	The unit is loading.

Example

The following is an example of this command.

```
>BULKOFFL
```

BulkRts (UPGRADE level)

Purpose

The Bulk

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bulk: Return to service the posted SPMs.

Parms: <RTS What?> {PM,

                    UNIT <Unit Number> {0 TO 1},

                    INACTIVE,

                    ACTIVE}

       [<Prompt Option> {NOPROMPT}]

       [<Noreply option> {NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 13-36

Parameter	Value	Description
Options	NOPROMPT	Indicates that the user does not wish any prompting messages to be displayed. Response to all prompts defaults to “Yes.”
	NOREPLY	Indicates that the user does not desire a response from execution of the command.

MAP responses

The following are responses to the command.

Table 13-37

Response	Explanation and action
`This command will return the chosen unit of the posted SPMs to service. Do you wish to continue? Please confirm (“YES”, “Y”, “NO”, or “N”):`	The BulkRts command has been issued. The user must choose whether or not to continue.
`BulkRts: Command Accepted. In Progress.`	The command is accepted.
`BulkRts: Command Rejected.`	The command is rejected.
`BulkRts: SubCommand passed. Command completed. SPM x Unit y`	The SPM unit has successfully performed the request.
`BulkRts: SubCommand failed. No comment. SPM x Unit y`	The SPM unit failed to perform the request.
`BulkRts: SubCommand failed. Node/Unit is in an invalid state. SPM x Unit y`	The unit is not in a valid state.
`BulkRts: SubCommand failed. Maintenance already in progress. SPM x Unit y`	The unit is already performing some type of maintenance.
`BulkRts: SubCommand failed. Change of state in progress. SPM x Unit y`	A change of state is already in progress.
`BulkRts: SubCommand failed. Loading activity in progress. SPM x Unit y`	The unit is loading.
`BulkRts: SubCommand aborted. SPM x Unit y`	The request is aborted.

Example

The following is an example of this command.

```
>BULKRTS UNIT 0 I
```

BulkSwct (UPGRADE level)

Purpose

The BulkSwct command performs a manual or force switch activity (SWACT) on common equipment modules (CEMs) for all SPMs in an office. The BulkSwct command defaults to a manual swact unless the FORCE option is specified. The BulkSwct command also provides a choice of CEMs to select for SWACT.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Res

Command syntax

The following is an example of command syntax.

```
BulkSwct: Perform a switch of activity on All the posted SPMs.

Parms: [<Force Option> {FORCE}]

       [<Prompt Option> {NOPROMPT}]

       [<Noreply option> {NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 13-38

Parameter	Value	Description
ALL	string	Apply SWACT to the selected CEMs. If option ALL is used, then SWACT CEMs for all the SPMs. A subset of nodes can also be chosen by issuing the following command, BulkSwct 1 2 4. This attempts to SWACT the units of SPM 1, 2, and 4, leaving all other units unaffected.
Options	FORCE	Performs a SWACT force on the specified CEMs in an office.
	NOPROMPT	Indicates that the user does not wish any prompting messages to be displayed. Response to all prompts defaults to “Yes.”
	NOREPLY	Indicates that the user does not desire a response from execution of the command.

MAP responses

The following are responses to the command.

Table 13-39 (Sheet 1 of 2)

Response	Explanation and action
`BulkSwct: This command will switch activity on all posted SPMs and may impact services on this node. Do you wish to continue? Please confirm (“YES”, “Y”, “NO”, or “N”):`	The user entered the BulkSwct command, a confirmation is requested.
`BulkSwct: Command Accepted. In Progress.`	The command is accepted.
`BulkSwct: Command rejected.`	The command is rejected.
`BulkSwct: SubCommand passed. Command completed.` `SPM x`	The SPM unit has successfully performed the request. The command passed on all specified units.
`BulkSwct: SubCommand failed. No comment.` `SPM x`	The SPM unit failed to perform the request.

Table 13-39 (Sheet 2 of 2)

Response	Explanation and action
`BulkSwct: SubCommand failed. Node/Unit is in an invalid state.` `SPM x`	The unit is not in a valid state when the user executed the command.
`SubCommand failed. Maintenance already in progress.` `SPM x`	The unit is already performing some type of maintenance when the user executed the command.
`SubCommand failed. Change of state in progress.` `SPM x`	A change of state is already in progress when the user executed the command.
`BulkSwct: SubCommand failed. Loading activity in progress.` `SPM x`	The unit is loading when the user executed the command.
`SubCommand aborted.` `SPM x`	The request is aborted.

Example

The following are examples of this command.

```
>BULKSWCT ALL

>BULKSWCT 1 2 4
```

Quit (UPGRADE level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-40

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

The following are examples of this command.

```
>QUIT
```

```
>QUIT All
```

11 SPMDSPDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMDSPDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMDSPDIR commands in alphabetical order are as follows:

- Bsy
- ListAlm
  - — for SuperNode
  - — for BRISC
- ListRes
- ListSet
- LoadMod
- Next
- OffL
- QueryMod
- Quit
- Prot
- RTS
- Select

- Tst
- SPERFORM subdirectory
  - — SPMACT subdirectory
    - – Start
    - – Stop
    - – STRTLOG
    - – STOPLOG
  - — SPUSAGE directory
    - – Start
    - – Stop
    - – STRTLOG
    - – STOPLOG

To access the directory

To access the directory, type the following command.

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT DSP <unit_no>
```

or

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT DSP all
```

or

```
>MAPCI;MTC;PM;POST SPM <spm_number> (0 to 63);SELECT DSP
<ckt_no>
```

This is an example of entering the command:

```
>MAPCI;MTC;PM;POST SPM 0;SELECT DSP 0
```

To return to CI

Type the following command to return to CI.

```
QUIT ALL
```

DSP screen

The following illustrates the DSP screen.

```
  CM       MSN    IOD     Net      PM      CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       C       .          .
  M        M                    *C*

DSP                                  SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                  PM             0       2       7       0      11       0
 2                       SPM            0       2       2       0       2       0
 3 ListSet                 DSP          0       0       1       1       0       0
 4 ListRes
 5                    SPM  3   DSP  0   Act   OffL
 6 Tst
 7 Bsy                Loc : Row E  FrPos 8  ShPos 40 ShId 1 Slot 7  Prot grp : 1
 8 RTS                Default Load: DSP0013                         Prot Role: Working
 9 OffL
10 LoadMod
11
12 Next
13 Select_
14 QueryMod
15 ListAlm
16 Prot
17 SPERFORM
18

     CMAP19
 Time   10:52 >
```

Bsy

Purpose

This command is used to change the state of a selected digital signal processor (DSP) to out-of-service or manual busy (ManB). This command changes the state of ManB of a DSP resource module (RM) from an offline (OffL) state or from an in-service (INSV) state.

DANGER

Possible service interruption

Changing from INSV to ManB may have an impact on service.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bsy:  Busy the selected CPK(s).

Parms: [<ALL>  {ALL}]

       [{<Force> {FORCE}]

       [<Prompt>  {NOPROMPT}]

       [<Options>  {NOWAIT,

                    NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 11-1

Parameter	Value	Description
All	ALL	All the selected DSPs in the selected SPM
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following responses indicate the requests to manually busy both CPKs was submitted and successfully completed.

```
SPM 0 DSP 0 Busy: Request has been submitted.

SPM 0 DSP 0 Busy: Command completed.

SPM 0 DSP 1 Busy: Request has been submitted.

SPM 0 DSP 1 Busy: Command completed.
```

Examples

The following are examples of this command.

```
>Bsy

>Bsy all

>Bsy Nowait
```

ListAlm for BRISC

Purpose

This command displays to the MAP terminal the list of alarms that are pegged against the posted entity (SPM node, CEM, DSP, VSP, or OC3). The alarms display in decreasing order of severity (Critical, Major, Minor, No Alarm). The command also allows the user to select a particular severity and display only those alarms. The default value is to list all alarms pegged against the entity.

Note: This ListAlm command information is the same for each entity that can be posted (SPM node, CEM, DSP, VSP, or OC3).

The user can view only those alarms that are provisioned to “reportable" (the default value) or all alarms including those provisioned as “not to be reported".

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following is the syntax for the ListAlm command at the SPM node level:

```
>LISTALM CR

LISTALM <option>
```

Parameters

The following table describes the parameters for the syntax.

Table 11-2 (Sheet 1 of 2)

Parameter	Value	Description
Option	CR	List all reportable Critical alarms posted against the given entity.
	MJ	List all reportable Major alarms posted against the given entity.

Table 11-2 (Sheet 2 of 2)

Parameter	Value	Description
	MN	List all reportable Minor alarms posted against the given entity.
	NA	List all reportable No Alarm alarms posted against the given entity. This parameter implies that an alarm can have a severity that is less than minor but still needs to be displayed. Usually, this is not be used.
	NRPT	Display the non-reportable alarms along with the reportable ones. This optional parameter can be used alone or in conjunction with each severity parameter and the full parameter described in the “MAP responses" table.

MAP responses

The following are responses to this command.

```
ListAlm: SPM <spm_number> (0 to 63)

<alarm_severity>   <alarm_name>   <alarm_action>
```

The following table describes the parameters for this command.

Table 11-3 (Sheet 1 of 2)

Parameter	Description
alarm_severity	Critical, Major, Minor, No Alarm ***Note:*** User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.

Table 11-3 (Sheet 2 of 2)

Parameter	Description
alarm_name	A less than or equal to 8 character name for the alarm. The text “non" indicates there are no alarms to report.
alarm_action	The actions are as follows: • RPT indicates this alarm is provisioned to be reportable. It is used to distinguish between alarms provisioned to be reportable and those provisioned to be non-reportable. • NONRPT indicates this alarm is provisioned to be non-reportable. It is only displayed when the NRPT option is issued with the ListAlm command. • Blanks display in the alarm_action field instead of NONRPT when the ListAlm command is issued without the NRPT optional parameter. In addition, when an alarm is provisioned as non-reportable, the alarm name displays in response to the ListAlm command.

Examples

The following examples are a series of command variances that illustrate what the display for the alarms would look like. This example uses fictitious alarm names.

The examples assume the alarms are pegged against the Node: nalm1 Critical, nalm2 Critical, nalm3 Major, nalm4 Minor, nalm5 Minor Non-Reportable, nalm6 No Alarm.

The CEM has the following alarms pegged against it: calm1 Critical, calm2 Minor Non-Reportable, calm3 Major.

The DSP has the following alarms pegged against it: dalm1 Minor, dalm2 Minor Non-Reportable, dlam3 Major.

The OC3 has the following alarms against it: oalm1 Major, oalm2 Minor, oalm3 Minor, oalm4 No Alarm non-reportable.

There are no alarms pegged against the VSP in this example.

The following are a series of command variances:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT


>mapci;mtc;pm;post spm 0;listalm MJ
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               NALM3       RPT


>mapci;mtc;pm;post spm 0;listalm MN
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
```

```
>mapci;mtc;pm;post spm 0;listalm NA

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
Minor               NALM5       NONRPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT

>mapci;mtc;pm;post spm 0;listalm MN NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
Minor               NALM5       NONRPT
```

```
>mapci;mtc;pm;post spm 0;select cem 0;listalm
ListAlm: SPM 0 CEM 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               None
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               CALM2       NONRPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm CR
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT


>mapci;mtc;pm;post spm 0;select cem 0;listalm MJ NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select DSP 0;listalm
ListAlm: SPM 0 DSP 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm CR
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM2       NONRPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm MJ NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select OC3 0;listalm
ListAlm: SPM 0 OC3 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            None



>mapci;mtc;pm;post spm 0;select OC3 0;listalm NRPT
ListAlm: SPM 0 OC3 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            OALM4       NONRPT
```

When alarms are listed with no alarms raised, the following displays:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               None
Minor               None
No_Alarm            None
```

ListAlm for SuperNode

Purpose

This command displays the list of alarms associated with the selected module (circuit pack) in the SPM. If no parameter is specified, the entire list of alarms associated with the selected module displays. However, if an alarm number is specified as parameter to this command, details of the specified alarm display.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListAlm: Display alarms for the posted entity. All alarms can
be listed by severity bye ntering the command without parms orby
a single severity using parameters 1-4. The non-reportable
alarms can beincluded in either case.

This command provides the following options:

1. CR : List all Critical alrms.

2. MJ : List all Major alarms

3. MN : List all Minor alarms

4. NA : List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms:  [<Option> {CR [<Action> {NRPT}],

                  MJ [<Action> {NRPT}],

                  MN [<Action> {NRPT}],

                  NA [<Action> {NRPT}],

                  NRPT}]
```

Parameters

The following table describes the parameters.

Table 11-4

Parameter	Value	Description
AlarmNo	0-?	Alarm number
Option	CR	Critical alarm
	MJ	Major alarm
	MN	Minor alarm
	NA	No-Alarm alarm
	NRPT	Non-reportable alarm

MAP responses

The following is a response to this command.

```
ListAlm: SPM 0  DSP 0

SEVERITY    ALARM       ACTION

-----------------------------

Critical    None

Major       MANBNA      RPT

Minor       None

No_Alarm    None
```

Example

None

ListRes

Purpose

This command displays a list of all the resources provided by the digital signal processor (DSP) on the screen. The list contains the datafilled and the actual resources provided by the DSP.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListRes: Display a list of resources for the CPK.
```

MAP response

The following are responses to this command.

```
COT    :   Datafilled:   0   Actual:   0

DTMF   :   Datafilled:  24   Actual:  24

ECAN   :   Datafilled:   0   Actual:   0

TONESYN:   Datafilled: 128   Actual:   0

ABBIT  :   Datafilled:   0   Actual:   0

MF     :   Datafilled:   0   Actual:   0
```

This response lists the total of datafilled, as well as actual, resources for the DSP. The actual may be different from the datafilled if the DSP is not in-service (INSV).

Example

None

ListSet

Purpose

The ListSet command lists the contents of the Post set.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
List the contents of the post set
```

Parameters

None

MAP responses

None

LoadMod

Purpose

The LoadMod command loads the selected module with the specified load.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LoadMod: Load the CPK.

Parms: [<Load Name> STRING]

       [<All> {ALL}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 11-5

Parameter	Value	Description
LoadName	String up to 32 characters	
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP response

The following is a response to this command.

```
SPM 0 DSP 0 Load: Request has been submitted.
```

Example

The following are examples of this command.

```
>LoadMod

>LoadMod fn <filename>
```

Next

Purpose

The Next command goes to the next of the selected modules. This command applies only if more than one digital signal processor (DSP) were selected (for example, when using the <select all> command).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Next:  Step to next CPK in post set.

Parms: [<CPK TYPE> {CPKTYPE}]
```

Parameters

None

MAP response

The following is a response to this command.

```
Display the next circuitpack screen.
```

Example

The following is an example of this command.

```
>Next
```

OffL

Purpose

The OffL command is used to change the state of a selected digital signal processor (DSP) to offline (OffL) from manual busy (ManB).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
OffL: Offline the selected CPK(s).

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

The parameters are described in the following table.

Table 11-6

Parameter	Value	Description
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 DSP 0 Offline: Request has been submitted.
```

```
SPM 0 DSP 1 Offline: Request has been submitted.

SPM 0 DSP 0 Offline: Command completed.

SPM 0 DSP 1 Offline: Command completed.
```

Example

The following is an example of this command.

```
>Offl
```

Prot

Purpose

The Prot command brings up the protection screen for the module from whose screen the Prot command is issued.

Refer to Chapter, “SPMPROTDIR directory," for more information about the Protection screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Prot: Enter the Protection level MAP.
```

MAP response

When the command is executed, the Protection screen displays.

Example

The following is an example of this command:

```
>Prot
```

QueryMod

Purpose

The QueryMod command queries a specified module (circuit pack) in the SPM. The QueryMod command displays only the information for the digital signal processor (DSP) RM in the post set, even when the user enters the SELECT DSP ALL command.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
QueryMod: Query misc info about the CPK.
```

MAP responses

The following are responses to this command.

```
DSP 0 ManB Act    Loc: Row A  FrPos 13 ShPos 6 ShId 1 Slot 1

Default Load: DSP0013             Actual Load: DSP0014
```

Example

The following is an example of this command.

```
>QueryMod
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 11-7

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

RTS

Purpose

The RTS command changes the state of a selected digital signal processor (DSP) to in-service (INSV) from manual busy (ManB).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS: Return the selected CPK(s) to service.

Parms: [<ALL> {ALL}]

       [<Force> {Force}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 11-8

Parameter	Value	Description
All	ALL	All the selected DSPs
Force	FORCE	
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 DSP 0 RTS: Request has been submitted.

SPM 0 DSP 0 RTS: Command completed.

SPM 0 DSP 1 RTS: Request has been submitted.

SPM 0 DSP 1 RTS: Command completed.
```

Example

The following are examples of this command.

```
>RTS

>RTS all

>RTS nowait
```

Select

Purpose

The Select command selects a specified module (circuit pack) in the SPM. The screen for the selected module is displayed. This command is analogous to the Post command and one level below the Post command. The Post command can be executed from the PM level, as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen, as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SELECT: Select specified CPKs for maintenance

Parms: [<All CPKs> {AllCPKs}]

       [<All> {All}]

       {<UNIT? ... {0 to 27}]

       [<CPK Type>... {CEM [<All> {All}]

                          [<UNIT>... {0 TO 1}],

                      OC3 [<All> {All}]

                          [<UNIT>... {0 TO 1}],

                      DSP [<All> {All}]

                          [<UNIT>... {0 TO 27}],

                      VSP [<All> {All}]

                          [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 11-9

Parameter	Value	Description
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-27	DSP
Unit	0-27	VSP

MAP responses

The following are responses to this command.

Table 11-10

Response	Explanation and action
`The CEM, OC3, DSP, or VSP screen displays in response to the command.`	Depending on the parameters to the Select command, one or more modules are selected, and the first one in the set is displayed. The user can find out what is in the select set by way of the command listset. The next command is used to display the next one in the set. If more than one type of CPK are selected (for example, select DSP all OC3 all), the select set is created in the order of CEM, OC3, DSP, and VSP even if DSP is specified before OC3.
`EITHER incorrect optional parameter(s) OR too many parameters.`	This response indicates that the Select command is issued with invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	

Examples

The following are examples of this command.

```
>Select CEM 0
```

```
>Select VSP 9
```

```
>Select DSP all

>Select allcpks

>Select CEM all OC3 0 DSP 0
```

Tst

Purpose

The Tst command tests the selected digital signal processor (DSP). This command would invoke the diagnostic tests on the circuit pack. The <all> option applies to all the selected DSPs. If DSPs are selected using the command >*select cpk all*, then >*Tst all* will run the tests on both DSPs. If the selection is done by >*select cpk 0*, then >*Tst all* would only apply to DSP 0. This is essentially be same as executing the Tst command without any parameter. If the Tst command is executed without any parameter, tests would be run on the DSP that currently displays on the screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Tst: Test the selected CPK(s)

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 11-11 (Sheet 1 of 2)

Parameter	Value	Description
All	ALL	All the selected DSPs
Prompt	NOPROMPT	Suppress the yes/no prompts

Table 11-11 (Sheet 2 of 2)

Parameter	Value	Description
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

Table 11-12

Response	Explanation and action
`Command rejected. The DSP is offline.`	The tests cannot be performed when the state of the DSP is offline.
`SPM 1 DSP 0 Test: Request has been submitted.` `SPM 1 DSP 0 Test: Command Completed.`	The test request was submitted and the command completed successfully.

`This operation will be executed on 2 DSPs`
`Please confirm (“YES", “Y", “NO", or “N"):`
`y`
`SPM 1 DSP 0 Test: Request has been submitted.`
`SPM 1 DSP 0 Test: Command Completed.`
`SPM 1 DSP 1 Test: Request has been submitted.`
`SPM 1 DSP 1 Test: Command Completed.`
	The *tst all* command was executed after selecting both DSPs (select DSP all). The test requests were submitted for both DSPs and the command completed successfully.

Examples

The following are examples of this command.

```
>Tst

>Tst Nowait

>Tst all
```

SPERFORM

The SPERFORM (SPM performance measurement) is a subdirectory of the Spectrum Peripheral Module (SPM). The SPERFORM subdirectory is accessed from the SPMDIR directory.

The SPERFORM subdirectory contains the following two subdirectories:

- SPMACT (SPM module activity)
- SPUSAGE (SPM USAGE)

The SPERFORM tool is a MAPCI-based tool that serves as an umbrella for several subtools. These tools provide statistical analysis on the SPM peripheral.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM
```

or

```
>MAPCI;MTC;PM;Post SPM all;SPERFORM
```

To return to CI

```
>QUIT
```

SPERFORM screen

The following illustrates the SPERFORM screen.

```
   CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
    M        M                   *C*                     *C*


SPERFORM                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                        1       0       8       0      10       0
 2 SPMAct        SPM                       0       0       2       0       3       0
 3 SPUSAGE
 4              SPM    3  ISTb   Loc: Site HOST Floor   5 Row E  FrPos  8
 5              LOAD NAME: CEM0013
 6              STATUS:             REASON:                 LOGS:     TIME:
 7
 8
 9
10
11
12
13
14
15
16
17
18

    14:12 >
```

Additional information

This command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

The following response displays if the user posts class SMG4KDA.

Table 11-13

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

SPMACT

The SPMACT (SPM activity counting) tool is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPMACT commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPMACT tool provides users with information about the occupancy of the CEM processor, origination and termination counts, and real-time in the CEM processor.

SPMACT primarily measures the occupancy of the CEM processor in a given SPM. The occupancy of a processor is the percentage of time actually spent working over a specified time interval. SPMACT measures the occupancy of the SPM and separates the measurements into the following categories:

- System: Highest priority in the SPM system. It is overhead associated with system sanity checks and restart initialization
- Application: This class refers to call processing and resource management within the SPM system
- Background: This class refers to low priority maintenance, operational measurements (OM) scanning, and terminal I/O (Command Interpreter)

Origination and termination counts are collected by SPMACT. This information helps technicians understand the relationship between traffic volume and processor occupancy.

The number of MF and DTMF resources being used is also reported along with the number available and the peak number reported during the time the tool is in use.

The SPMACT tool also collects data on

- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks

- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

In addition to providing data on the MAPCI level, updated every minute, this tool generates SPRF670 logs that are a compilation of the tool's results from the time the user enables SPMACT until it is disabled. Each line of the log corresponds to a performance measurement taken every minute by the SPMACT tool. Logs SPRF670 and SPRF671 generate every 15 minutes from the time the tool starts and keep generating until the timer runs out, or the tool stops. These logs are found on the CM through LOGUTIL.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPMACT
```

To return to CI

```
>QUIT
```

SPMACT screen

The following illustrates the SPMACT screen, that the user accesses from the SPERFORM screen.

```
   CM      MS     IOD      Net      PM     CCS      Lns      Trks     Ext      APPL
  CM Flt   ManB   KT  B   2CSLk   1 SPM    .        .        1 CC     .        .
    M        M                    *C*                        *C*


 SPMACT
  0 Quit                                  SysB     ManB     OffL     CBsy     ISTb     InSv
  2 Strt          PM                         0        0        8        0       11        0
  3 Strtlog       SPM                        0        0        2        0        3        0
  4 Stoplog
  5 Stop       SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
  6            LOAD NAME: CEM0013
  7            STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
  8                     SYSTEM  APPLICATION      BACKGROUND
  9            CEM
 10            CEMAVG
 11                 ORIG        ORIGAVG        TERM           TERMAVG
 12                              MF    DTMF      ECAN          COT       TONE
 13            AVAIL
 14            INUSE
 15            HIGH
 16
 17
 18

      14:12 >
```

Quit (SPMACT level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 11-14

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

START (SPMACT level)

Purpose

The START command initializes the SPMACT tool (SPM activity counting tool) for a variable amount of time. SPMACT captures the following information:

- System Class Occupancy
- Average System Class Occupancy
- Application Occupancy
- Average Application Class Occupancy
- Background Class Occupancy
- Average Background Class Occupancy
- Originations
- Average Originations
- Terminations
- Average Terminations
- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks
- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPMACT display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 11-15

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPMACT tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 11-16

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPMACT level)

Purpose

The STOP command discontinues the SPMACT tool (SPM activity counting tool). At that time, the SPM completes the SPMACT log, if previously enabled. The SPMACT log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPMACT tool (assuming the user did not use STOPLOG).

The SPMACT display is updated to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 11-17

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPMACT level)

Purpose

The STRTLOG command enables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to ON and begins the SPMACT log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 670 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 11-18

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPMACT level)

Purpose

The STOPLOG command disables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool was running with logs ON, the STOPLOG command causes the CM to generate an SPRF 670 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 11-19

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

SPUSAGE

The SPUSAGE (SPM UniverSal Activity Gauging Element) is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPUSAGE commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPUSAGE tool collects information on call processing events that occur in the SPM. These events may be messages, logs, or OMs. This information is useful for monitoring the activity on the SPM from a functional view and enables the user to detect any processing difficulties on the SPM.

The results can be used to pinpoint problems and find appropriate solutions. In addition to on-screen information, the SPUSAGE tool outputs SPRF 671 logs, which are a summary of the samples taken every minute during the time the tool is activated. The logs generate every 15 minutes until the timer runs out or the tool stops.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPUSAGE
```

To return to CI

```
>QUIT
```

SPUSAGE screen

The following illustrates the SPUSAGE screen that the user accesses from the SPERFORM screen.

```
   CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPUSAGE                                 SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM            0       0       8       0      11       0
 2 Strt                    SPM           0       0       2       0       3       0
 3 Strtlog
 4 Stoplog      SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop         LOAD NAME: CEM0013
 6              STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                       SYSTEM  APPLICATION      BACKGROUND
 8
 9              ABDN       EXIT       CONF       REL_CAL      TX_FAIL     DTMF_DNY
10
11              MF_DNY     NET_PAR    NET_INTG   NET_FND      NET_NFND
12
13              ECAN_DNY   COT_DNY    TONE_DNY
14
15
16
17
18

   14:12 >
```

Quit (SPUSAGE level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 11-20

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

START (SPUSAGE level)

Purpose

The START command starts the SPUSAGE (SPM universal activity gauging element) tool. This tool captures the following information:

- abandon message (ABDN)
- exit message (EXIT)
- confusion messages (CONF)
- release call messages (REL_CAL)
- parity error (NET_PAR)
- integrity lost (NET_INTG)
- transmit fail (TX_FAIL)
- network integrity found (NET_FND)
- network integrity not found (NET_NFND)
- ECAN allocation denied during a particular minute (ECAN_DNY)
- COT allocation denied during a particular minute (COT_DNY)
- TONE allocation denied during a particular minute (TONE_DNY)

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPUSAGE display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 11-21

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPUSAGE tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 11-22

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPUSAGE level)

Purpose

The STOP command discontinues the SPUSAGE (SPM universal activity gauging element) tool. At that time, the SPM completes the SPUSAGE log, if previously enabled. The SPUSAGE log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPUSAGE tool (assuming the user did not use STOPLOG).

The SPM updates the SPUSAGE display to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 11-23

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPUSAGE level)

Purpose

The STRTLOG command enables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to ON and begins the SPUSAGE log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 671 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 11-24

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPUSAGE level)

Purpose

The STOPLOG command disables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool is running with logs ON, the STOPLOG command causes the CM to generate an SPRF 671 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 11-25

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

SPMLDINFO directory

This chapter provides an overview of the SPMLDINFO level. The following table alphabetically lists the commands available at the SPMLDINFO level.

Command
LISTLOAD
LISTRELEASE
LISTSPMLOAD
QUIT

Description

Use the SPMLDINFO level of the CI to display the load release information of spectrum peripheral modules (SPMs). The SPMLDINFO directory is resident.

Note: The SPMLDINFO commands get the load sequence information for the different SPM load releases from table SPMLDVAL.

How to access the SPMLDINFO level

Access the SPMLDINFO level from the CI environment:

```
> spmldinfo
```

How to return to the CI

Return to the CI environment:

```
> quit
```

LISTLOAD

Type

The LISTLOAD command is non-menu.

Target

The command target for the LISTLOAD command is ALL.

Description

The LISTLOAD command is used to display the load line-up information for a given spectrum load release name. The load line-up information is datafilled in table SPMLDVAL and is applicable only for TDM Spectrum Peripheral module (SPM) loads.

Release history

SN06 (TDM)

Feature 89007535 introduced the SPMLDINFO level directory and the LISTLOAD command within it.

Limitations and restrictions

The LISTLOAD command can be used only to display the TDM spectrum release load information which is applicable to DMSCP class SPMs. This command is not applicable to Succession Multi-Services Gateway 4 (SMG4), Interworking (IW), or Dynamic Packet Trunk (DPT) SPMs.

Syntax

The LISTLOAD command syntax is as follows:

```
LISTLOAD <load_type> <general_release> <maintenance_release>
<emergency_release>

Parms: <load_type> { SP }
       <general_release> {1 TO 99}
       <maintenance_release> {0 TO 9}
       <emergency_release> {0 TO 9}
```

The following table describes the command parameters and variables.

Command parameter and variable descriptions

Parameters and variables	Value	Description
load_type	SP	Enter the type of load. Only one value is permitted, SP.
general_release	1 to 99	Enter the milestone release number.

LISTLOAD (continued)

Command parameter and variable descriptions

Parameters and variables	Value	Description
maintenance_release	0 to 9	Enter the maintenance release number.
emergency_release	0 to 9	Enter the emergency release number.

Examples

The following tables provide examples of the LISTLOAD command.

LISTLOAD command examples

Command:	**spmldinfo; listload SP 15 3 1**
Description of task:	Display the list of device loads belonging to a particular spectrum load release.
MAP response:	CI: >spmldinfo SPMLDINFO: >listload SP 15 3 1 Circuit Pack Load Lineup for Spectrum Load Release SP15.3.1 : CEM Load : CEM15CQ DSP Load : DSP15DO DLC Load : DLC15DA OC3 Load : OC315DF ....
Explanation:	The list of device loads for the requested load release is displayed.

Note: The LISTLOAD command uses the first three letters of the loadname to identify the load type. For example, OC315DF is an OC3 load.

Responses

The following table describes the MAP responses.

LISTLOAD command responses

MAP output	Meaning and action
`This load release is not datafilled in table SPMLDVAL.`	**Meaning:** The load release name entered is not datafilled in table SPMLDVAL. **Action:** None.

LISTRELEASE

Type

The LISTRELEASE command is non-menu.

Target

The command target for the LISTRELEASE command is ALL.

Description

The LISTRELEASE command is used to display the spectrum load releases in which the given device load is included. The load line-up information is datafilled in table SPMLDVAL and is applicable only for TDM Spectrum Peripheral module (SPM) loads.

Release history

SN06 (TDM)

Feature 89007535 introduced the SPMLDINFO level directory and the LISTRELEASE command within it.

Limitations and restrictions

The LISTRELEASE command can only be used to display the TDM spectrum release load information which is applicable to DMSCP class SPMs. This command is not applicable to Succession Multi-Services Gateway 4 (SMG4), Interworking (IW), or Dynamic Packet Trunk (DPT) SPMs.

Syntax

The LISTRELEASE command syntax is as follows:

```
listrelease <loadname> {STRING}

Parms: <load_name>
```

The following table describes the command parameters and variables.

Command parameter and variable descriptions

Parameters and variables	Value	Description
load_name	STRING	Enter the device load name as a string of up to 7 characters. For example: CEM15CQ or DSP15DO.

LISTRELEASE (continued)

Examples

The following tables provide examples of the LISTRELEASE command.

LISTRELEASE command examples

Command:	**spmldinfo; listrelease DLC15CY**
Description of task:	Display the list of spectrum load releases in which the given device load is included.

MAP response:	`CI:`
	`>spmldinfo`
	`SPMLDINFO:`
	`>listrelease DLC15CY`
	`Circuit pack load DLC15CY is valid in the following load releases.`
	`SP15.2.1`

Explanation:	The list of load releases is displayed.

Responses

The following table describes the MAP responses.

LISTRELEASE command responses

MAP output	Meaning and action
`*** Warning : Loadname must be 7 characters in length.`	**Meaning:** The circuit pack loadname entered is not 7 character long. **Action:** Try again using the correct circuit pack loadname.
`Circuit pack load DLC15CZ is not datafilled in table SPMLDVAL.`	**Meaning:** The circuit pack loadname DLC15CZ is not datafilled in table SPMLDVAL. **Action:** None.

LISTSPMLOAD

Type

The LISTSPMLOAD command is non-menu.

Target

The command target for the LISTSPMLOAD command is ALL.

Description

This LISTSPMLOAD command displays the running release load names for all the DMS call processing (DMSCP) SPMs in the office. There are two ways of running the command, you can either select all the SPMs or specify a range.

Release history

SN06 (TDM)

Feature 89007535 introduced the SPMLDINFO level directory and the LISTSPMLOAD command within it.

Limitations and restrictions

The LISTSPMLOAD command is not applicable to Succession Multi-Services Gateway 4 (SMG4), Interworking (IW), or Dynamic Packet Trunk (DPT) SPMs. If the command is tried on any of these classes of SPMs the message, `SPM <spm_number> is not a DMSCP SPM`, is displayed.

Syntax

The LISTSPMLOAD command syntax is as follows:

```
listspmload

Parms: { All }
       { spm <spm start number> <spm end number>}
```

The following table describes the command parameters and variables.

Command parameter and variable descriptions

Parameters and variables	Value	Description
All		This option lists the running release loads for all the DMSCP SPMs.
SPM	<spm start number> <spm end number>	Specifies the range of SPM numbers for which the running load release information is required.

LISTSPMLOAD (continued)

Examples

The following tables provide examples of the LISTSPMLOAD command.

LISTSPMLOAD command examples

Command:	**spmldinfo; listspmload all**
Description of task:	Display the list of spectrum load releases running in each of the SPMs in the office.
MAP response:	CI: >spmldinfo SPMLDINFO: >listspmload all SPM 1 : SP15.3.1 SPM 2 is not a DMSCP SPM. SPM 3 : SP15.3.1 SPM 5 : SP15.3.1 SPM 6 : Unable to contact the devices. The requested data cannot be retrieved. SPM 7 : Load lineup does not match with any of the load releases datafilled in table SPMLDVAL
Explanation:	The output is self explanatory.
Command:	**spmldinfo; listspmload spm 1 4**
Description of task:	Display the list of spectrum load releases running in SPM 1 to SPM 4 in the office.
MAP response:	>spmldinfo SPMLDINFO: >listspmload spm 1 4 SPM 1 : SP15.3.1 SPM 2 is not a DMSCP SPM. SPM 3 : SP15.3.1 SPM 4 is not datafilled.
Explanation:	The output is self explanatory.
Command:	spmldinfo; listspmload spm 1

LISTSPMLOAD command examples

Description of task:	Display the list of spectrum load release running in SPM 1 in the office.

MAP response:	`>spmldinfo`
	`SPMLDINFO:`
	`>listspmload spm 1`
	`SPM 1 : SP15.3.1`

Explanation:	The output gives the load release running in SPM 1.
Command:	**spmldinfo; listspmload all**
Description of task:	Display the list of spectrum load releases running in each of the SPMs in the office.

MAP response:	`CI:`
	`>spmldinfo`
	`SPMLDINFO:`
	`>listspmload all`
	`No DMSCP SPMs are datafilled in the office.`

Explanation:	No DMSCP SPMs are datafilled in this office.

Responses

The following table describes the MAP responses.

LISTSPMLOAD command responses

MAP output	Meaning and action
`SPM <spm no> : Load lineup does not match with any of the load releases datafilled in table SPMLDVAL`	**Meaning:** The running device loads in an SPM do not match with any of the load release lineups datafilled in table SPMLDVAL, this may be because the running device load is not datafilled in table SPMLDVAL. **Action:** None.
`SPM <spm no> : Unable to contact the devices. The requested data cannot be retrieved..`	**Meaning:** The CEMs/RMs in the SPM are out of service so LISTSPMLOAD cannot get the running loads in the SPM's devices. **Action:** None.
`SPM <spm no> is not a DMSCP SPM.`	

LISTSPMLOAD command responses

MAP output	Meaning and action
	Meaning: The SPM variant is not DMSCP. **Action:** None.
`No DMSCP SPMs are datafilled in the office..`	**Meaning:** When option 'all' is specified, LISTSPMLOAD checks that at least 1 DMSCP SPM is datafilled. If not, it displays this warning. **Action:** None.
`SPM <spm no> is not datafilled. .`	**Meaning:** One of the SPM numbers within the range is not datafilled in table MNNODE. **Action:** None.

Note: Non-datafilled SPMs are not displayed for the **LISTSPMLOAD ALL** command.

12 SPMLFINFO directory

This chapter describes the syntax, purpose, and semantics of the SPMLFINFO command for the Spectrum Peripheral Module (SPM). Included with the command description are some of the messages that may occur when the command is executed.

To access the directory

```
>SPMLFINFO <filename> [options]
```

To return to CI

```
>QUIT ALL
```

SPMLFINFO

Purpose

The SPMLFINFO command displays PRSM and market/release records associated with a given SPM loadfile. Options associated with the command allow for various PRSU data and debug output.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMLFINFO <filename> [options]
```

Parameters

The following table describes the parameters.

Table 12-1 (Sheet 1 of 2)

Parameter	Value	Description
filename	loadfile name	Any 14-character loadfile name associated with a valid SPM loadfile
options	no option	Displays market/release information associated with SPM loadfile
	fname	Displays the internal loadfile name
	lname	DIsplays the internal baseline loadname
	plist	Displays the PRSU list associated with the SPM loadfile
	qprsu	Displays administrative information for a given PRSU
	allprsu	Displays all administrative information for all PRSUs in the loadfile

Table 12-1 (Sheet 2 of 2)

Parameter	Value	Description
	mktreldbg	Displays debug output in addition to market/release records
	prsmdbg	Displays debug output in addition to PRSM records

MAP responses

The output from the SPMLFINFO command, as shown in the following example, details PRSM and market/release information that can aid in determining whether to load the SPM loadfile into a peripheral.

```
>spmlfinfo cem0003_000000

Filename:                    CEM0003_000000

Loadname:                    CEM0003

Equipment type:              CEM

Market:                      IEC

Vendor:                      NORTEL

Version:                     SPM01

Release type:                Generally Available

General Release:             CEM03

Maintenance Release:

Emergency Release:

Required Emergency Release:

Target Customer:

Target Office:

Issue Date:                  1997/05/14 09:00:00.000 WED.

Description: Loadbuild

Agency:           RTP

Library Update: Required

CSP:               CSP07
```

```
Required Shared:            SHR07

Required PCL:

Required CEM:

Other requirements:         None

Comments: No comments


spmlfinfo cem0003_000000 fname

Internal loadfile name is CEM0003_000000.

spmlfinfo cem0003_000000 lname

Loadname is CEM0003.

spmlfinfo cem0003_000000 plist

PLIST from file:

PRSU 0: SNT000300000

spmlfinfo cem0003_000000 qprsu

Next par is: <prsu id> STRING

Enter: <prsu id>

SNT000300000

PRSUID   :      SNT000300000

File class:     162

File Version:   1.1

BCSNO    :      0

Category :      GEN

Classify :      C

Special  :      NO

Processor:      SPM

Entry Valid :   PRSU valid

Loadname:           CEM0003
```

```
Software Update:CHAZ.8

Service Request:CSR00000

VO Office:      NELSON

Date created:   1997/01/05 14:15:00.000 SUN.

Date edited:    1997/01/05 14:15:00.000 SUN.

Title:          Test fix #1

Description:       This fix does nothing.

Test Instructions:      Do nothing.

Warnings:      None.

record stop onto sfdev


>spmlfinfo cem0003_000000 fname

Internal loadfile name is CEM0003_000000.

>spmlfinfo cem0003_000000 lname

Loadname is CEM0003.

>spmlfinfo cem0003_000000 plist

PLIST from file:

PRSU 0: SNT000300000

>spmlfinfo cem0003_000000 qprsu SNT000300000

PRSUID   :      SNT000300000

File class:     162

File Version:   1.1

BCSNO    :      0

Category :      GEN

Classify :      C

Special  :      NO

Processor:      SPM
```

```
Entry Valid :   PRSU valid

Loadname:           CEM0003

Software Update:CHAZ.8

Service Request:CSR00000

VO Office:      NELSON

Date created:   1997/01/05 14:15:00.000 SUN.

Date edited:    1997/01/05 14:15:00.000 SUN.

Title:          Test fix #1

Description:       This fix does nothing.

Test Instructions:      Do nothing.

Warnings:      None.
```

Example

None

13 SPMOC3DIR directory

This chapter describes the syntax, purpose, and semantics of the SPMOC3DIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMOC3MDIR commands are as follows:

- Bsy
- ListAlm
  - for BRISC
  - for SuperNode
- ListSet
- LoadMod
- QueryMod
- Next
- OffL
- Prot
- Quit
- Select
- RTS
- Tst
- SPERFORM subdirectory
  - SPMACT subdirectory
    - Start
    - Stop
    - STRTLOG
    - STOPLOG
  - SPUSAGE subdirectory
    - Start
    - Stop
    - STRTLOG
    - STOPLOG

To access the directory

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT OC3 <unit_no>
```

or

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT OC3 all
```

or

```
>MAPCI;MTC;PM;POST SPM <spm_number> (0 to 63);SELECT OC3
<ckt_no>>
```

```
>MAPCI;MTC;PM;POST <spm_number> (0 to 63);SELECT CEM
<cem_number> (0 to 1)
```

This is an example of entering the command:

```
>MAPCI;MTC;PM;POST SPM 0;SELECT OC3 0
```

To return to CI

```
>QUIT ALL
```

OC3 screen

The following illustrates the OC-3 screen.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk    1 SPM    .       .      1 CE     .          .
  M        M                   *C*


OC3                                  SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                 PM             0       2       7       0      11       0
 2                      SPM            0       2       2       0       2       0
 3 ListSet                OC3          0       0       2       0       0       0
 4
 5                  SPM  3   OC3 0   Act  OffL
 6 Tst
 7 Bsy              Loc : Row E FrPos 8 ShPos 24 Sh 0 Slot 9    Prot grp : 1
 8 RTS              Default Load: OC30013                       Prot Role: Working
 9 OffL
10 LoadMod
11
12 Next
13 Select_
14 QueryMod
15 ListAlm
16 Prot
17 SPERFORM
18

   CMAP19
 Time   12:11 >
```

Bsy

Purpose

The Bsy command is used to change the state of a selected OC3 to out-of-service. This command is used to change the state of an OC3 resource module (RM) of manual busy (ManB) from an offline (OffL) state or from an in-service (INSV) state.

DANGER

Possible service interruption

Changing from INSV to ManB may have an impact on service.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bsy: Busy the selected CPK(s).

Parms: [<ALL> {ALL}]

       [<Force> {FORCE}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 13-1

Parameter	Value	Description
All	ALL	All the selected OC3s in the selected SPM
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following responses indicate the requests to manually busy both CPKs was submitted and successfully completed.

```
SPM 0 OC3 0 Busy: Request has been submitted.

SPM 0 OC3 0 Busy: Command completed.

SPM 0 OC3 1 Busy: Request has been submitted.

SPM 0 OC3 1 Busy: Command completed.
```

ListAlm for BRISC

Purpose

The ListAlm command for BRISCdisplays to the MAP terminal the list of alarms that are pegged against the posted entity (SPM node, CEM, DSP, VSP, or OC3). The alarms display in decreasing order of severity (Critical, Major, Minor, No Alarm). The command also allows the user to select a particular severity and display only those alarms. The default value is to list all alarms pegged against the entity.

Note: This ListAlm command information is the same for each entity that can be posted (SPM node, CEM, DSP, VSP, or OC3).

The user can view only those alarms that are provisioned to “reportable" (the default value) or all alarms including those provisioned as “not to be reported".

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following is the syntax for the ListAlm command at the SPM node level:

```
>LISTALM CRLISTALM <option>
```

Parameters

The following table describes the parameters for the syntax.

Table 13-2 (Sheet 1 of 2)

Parameter	Value	Description
Option	CR	List all reportable Critical alarms posted against the given entity.
	MJ	List all reportable Major alarms posted against the given entity.
	MN	List all reportable Minor alarms posted against the given entity.

Table 13-2 (Sheet 2 of 2)

Parameter	Value	Description
	NA	List all reportable No Alarm alarms posted against the given entity. This parameter implies that an alarm can have a severity that is less than minor but still needs to be displayed. Usually, this is not be used.
	NRPT	Display the non-reportable alarms along with the reportable ones. This optional parameter can be used alone or in conjunction with each severity parameter and the full parameter described in the “MAP responses" table.

MAP responses

The following are responses to this command.

```
ListAlm: SPM <spm_number> (0 to 63)

<alarm_severity>   <alarm_name>   <alarm_action>
```

The following table describes the parameters for this command.

Table 13-3 (Sheet 1 of 2)

Parameter	Description
alarm_severity	Critical, Major, Minor, No Alarm
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Table 13-3 (Sheet 2 of 2)

Parameter	Description
alarm_name	A less than or equal to 8 character name for the alarm. The text “non" indicates there are no alarms to report.
alarm_action	The actions are as follows: • RPT indicates this alarm is provisioned to be reportable. It is used to distinguish between alarms provisioned to be reportable and those provisioned to be non-reportable. • NONRPT indicates this alarm is provisioned to be non-reportable. It is only displayed when the NRPT option is issued with the ListAlm command. • Blanks display in the alarm_action field instead of NONRPT when the ListAlm command is issued without the NRPT optional parameter. In addition, when an alarm is provisioned as non-reportable, the alarm name displays in response to the ListAlm command.
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Examples

The following examples are a series of command variances that illustrate what the display for the alarms would look like. This example uses fictitious alarm names.

The examples assume the alarms are pegged against the Node: nalm1 Critical, nalm2 Critical, nalm3 Major, nalm4 Minor, nalm5 Minor Non-Reportable, nalm6 No Alarm.

The CEM has the following alarms pegged against it: calm1 Critical, calm2 Minor Non-Reportable, calm3 Major.

The DSP has the following alarms pegged against it: dalm1 Minor, dalm2 Minor Non-Reportable, dlam3 Major.

The OC3 has the following alarms against it: oalm1 Major, oalm2 Minor, oalm3 Minor, oalm4 No Alarm non-reportable.

There are no alarms pegged against the VSP in this example.

The following are a series of command variances:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT


>mapci;mtc;pm;post spm 0;listalm MJ
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               NALM3       RPT


>mapci;mtc;pm;post spm 0;listalm MN
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
```

```
>mapci;mtc;pm;post spm 0;listalm NA

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
Minor               NALM5       NONRPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT

>mapci;mtc;pm;post spm 0;listalm MN NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
Minor               NALM5       NONRPT
```

```
>mapci;mtc;pm;post spm 0;select cem 0;listalm
ListAlm: SPM 0 CEM 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               None
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               CALM2       NONRPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm CR
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT


>mapci;mtc;pm;post spm 0;select cem 0;listalm MJ NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select DSP 0;listalm
ListAlm: SPM 0 DSP 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm CR
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM2       NONRPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm MJ NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select OC3 0;listalm
ListAlm: SPM 0 OC3 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            None



>mapci;mtc;pm;post spm 0;select OC3 0;listalm NRPT
ListAlm: SPM 0 OC3 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            OALM4       NONRPT
```

When alarms are listed with no alarms raised, the following displays:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               None
Minor               None
No_Alarm            None
```

ListAlm for SuperNode

Purpose

The ListAlm command for SuperNode displays the list of alarms associated with the selected module (circuit pack) in the SPM. If no parameter is specified, the entire list of alarms associated with the selected module displays. However, if an alarm number is specified as parameter to this command, details of the specified alarm display.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListAlm: Display alarms for the posted entity. All alarms can
be listed by severity by entering the command without parms or
by a single severity using parameters 1-4. The non-reportable
alarms can be included in either case.

This command provides the following options:

1. CR : List all Critical alrms.

2. MJ : List all Major alarms

3. MN : List all Minor alarms

4. NA : List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms:  [<Option> {CR [<Action> {NRPT}],

                  MJ [<Action> {NRPT}],

                  MN [<Action> {NRPT}],

                  NA [<Action> {NRPT}],

                  NRPT}]
```

Parameters

The following table describes the parameters.

Table 13-4

Parameter	Value	Description
AlarmNo	0-?	Alarm number
Option	CR	Critical alarm
	MJ	Major alarm
	MN	Minor alarm
	NA	No-Alarm alarm
	NRPT	Non-reportable alarm

MAP responses

The following is a response to this command.

```
ListAlm: SPM 0  OC3 0

SEVERITY    ALARM       ACTION

-----------------------------

Critical    None

Major       MANBNA          RPT

Minor       None

No_Alarm    None
```

Example

None

ListSet

Purpose

The ListSet command lists the contents of the Post set.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
List the contents of the post set
```

Parameters

None

MAP responses

None

LoadMod

Purpose

This command loads the selected module with the specified load.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LoadMod: Load the CPK.

Parms: [<Load Name>  STRING]

       [<ALL> {ALL}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 13-5

Parameter	Value	Description
LoadName	String up to 32 characters	
Options	NOWAIT	
	NOREPLY	

MAP response

The following is a response to this command.

```
SPM 0 OC3 0 Load: Request has been submitted.
```

Example

The following are examples of this command.

```
>LoadMod
```

```
>LoadMod fn <filename>
```

Next

Purpose

The Next command goes to the next of the selected modules.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Next:   Step to the next CPK in post set.

Parms: [<CPK TYPE> {CPKTYPE}]
```

Parameters

None

MAP response

The following is a response to this command.

```
Display the next circuitpack screen.
```

Example

The following is an example of this command.

```
>Next
```

OffL

Purpose

The OffL command changes the state of a selected module to offline (OffL).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
OffL: OffLine the selected CPK(s).

Parms: [<All> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

The parameters are described in the following table.

Table 13-6

Parameter	Value	Description
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor is returned without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 OC3 0 Offline: Request has been submitted.

SPM 0 OC3 1 Offline: Request has been submitted.
```

```
SPM 0 OC3 0 Offline: Command completed.

SPM 0 OC3 1 Offline: Command completed.
```

Example

The following is an example of this command.

```
>Offl
```

Prot

Purpose

The Prot command brings up the protection screen for the module from whose screen the Prot command is issued.

Refer to Chapter, “SPMPROTDIR directory," for more information about the Protection screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Prot: Enter the Protection level MAP,
```

MAP response

When the command is executed, the Protection screen displays.

Example

The following is an example of this command.

```
>Prot
```

QueryMod

Purpose

The QueryMod command queries a specified module (circuit pack) in the SPM. The QueryMod command displays only the information for the optical carrier rate 3 (OC3) interface RM in the post set, even when the user enters the SELECT OC3 ALL command.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
QueryMod: Query misc info about the CPK.
```

MAP responses

The following is the response to the command:

```
OC3 0 ManB Act    Loc: Row A  FrPos 13 ShPos 6 ShId 0 Slot 9

Default Load: OC30013             Actual Load: OC30014
```

Example

The following is an example of this command.

```
>QueryMod
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-7

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

RTS

Purpose

The RTS command changes the state of a selected module to in-service (INSV).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS: Return the selected CPK(s) to service.

Parms: [<ALL> {ALL}]

       [<Force> {Force}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 13-8

Parameter	Value	Description
All	ALL	All the selected CEMs
Force	FORCE	
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor is returned without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 OC3 0 RTS: Request has been submitted.

SPM 0 OC3 0 RTS: Command completed.

SPM 0 OC3 1 RTS: Request has been submitted.

SPM 0 OC3 1 RTS: Command completed.
```

Examples

The following are examples of this command.

```
>RTS

>RTS all

>RTS nowait
```

Select

Purpose

The Select command selects a specified module (circuit pack) in an SPM. The screen for the selected module is displayed. This command is analogous to the Post command. The Post command can be executed from the PM level, as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen, as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Select: Select specified CPKs for maintenance

Parms: [<All CPKs> {AllCPKs}]

       [<All> {All}]

       {<UNIT? ... {0 to 27}]

       [<CPK Type>...{CEM [<All> {All}]

                          [<UNIT>... {0 TO 1}],

                      OC3 [<All> {All}]

                          [<UNIT>... {0 TO 1}],

                      DSP [<All> {All}]

                          [<UNIT>... {0 TO 27}],

                      VSP [<All> {All}]

                          [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 13-9

Parameter	Value	Description
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-27	DSP
Unit	0-27	VSP

MAP responses

The following are responses to this command.

Table 13-10

Response	Explanation and action
`The CEM, OC3, DSP, or VSP screen displays in response to the command.`	Depending on the parameters to the Select command, one or more modules are selected, and the first one in the set is displayed. The user can find out what is in the select set by way of the command listset. The next command is used to display the next one in the set. If more than one type of CPK are selected (for example, select DSP, all OC3 all), the select set is created in the order of CEM, OC3, DSP, and VSP even if DSP is specified before OC3.
`EITHER incorrect optional parameter(s) OR too many parameters.`	This response indicates that the Select command is issued with invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	

Examples

The following are examples of this command.

```
>Select CEM 0

>Select VSP 9
```

```
>Select DSP all

>Select allcpks

>Select CEM all OC3 0 DSP 0
```

Tst

Purpose

The Tst command tests the selected module(s) by invoking the diagnostic tests on the circuit pack. The <all> option applies to all the selected OC3s. If OC3s are selected using the command *>select cpk all*, then *>Tst all* will run the tests on both OC3s. If the selection is done by *>select cpk 0*, then *>Tst all* would only apply to OC3 0. This is essentially be same as executing the Tst command without any parameter. If the Tst command is executed without any parameter, tests would be run on the OC3 that currently displays on the screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Tst: Test the selected CPK(s)

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 13-11 (Sheet 1 of 2)

Parameter	Value	Description
All	ALL	All the selected OC3s
Prompt	NOPROMPT	Suppress the yes/no prompts

Table 13-11 (Sheet 2 of 2)

Parameter	Value	Description
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

Table 13-12

Response	Explanation and action
`Command rejected. The OC3 is offline.`	The tests cannot be performed when the state of the OC3 is offline.

`SPM 1 OC3 0 Test: Request has been submitted.`
 	
`SPM 1 OC3 0 Test: Command Completed.`
	The test request was submitted and the command completed successfully.

`This operation will be executed on 2 OC3s`
`Please confirm (“YES", “Y", “NO", or “N"):`
`y`
 	
`SPM 1 OC3 0 Test: Request has been submitted.`
`SPM 1 OC3 0 Test: Command Completed.`
`SPM 1 OC3 1 Test: Request has been submitted.`
`SPM 1 OC3 1 Test: Command Completed.`
	The *tst all* command was executed after selecting both OC3s (select OC3 all). The test requests were submitted for both OC3s and the command completed successfully.

Examples

The following are examples of this command.

```
>Tst
```

```
>Tst Nowait
```

```
>Tst all
```

SPERFORM

The SPERFORM (SPM performance measurement) is a subdirectory of the Spectrum Peripheral Module (SPM). The SPERFORM subdirectory is accessed from the SPMDIR directory.

The SPERFORM subdirectory contains the following two subdirectories:

- SPMACT (SPM module activity)
- SPUSAGE (SPM USAGE)

The SPERFORM tool is a MAPCI-based tool that serves as an umbrella for several subtools. These tools provide statistical analysis on the SPM peripheral.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM
```

or

```
>MAPCI;MTC;PM;Post SPM all;SPERFORM
```

To return to CI

```
>QUIT
```

SPERFORM screen

The following illustrates the SPERFORM screen.

```
   CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
    M        M                   *C*                     *C*


SPERFORM
 0 Quit                          SysB    ManB    OffL    CBsy    ISTb    InSv
 2 SPMAct          PM               1       0       8       0      10       0
 3 SPUSAGE         SPM              0       0       2       0       3       0
 4
 5                 SPM    3  ISTb   Loc: Site HOST Floor   5 Row E  FrPos  8
 6                 LOAD NAME: CEM0013
 7                 STATUS:             REASON:                 LOGS:     TIME:
 8
 9
10
11
12
13
14
15
16
17
18

    14:12 >
```

Additional information

This command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

The following response displays if the user posts class SMG4KDA.

Table 13-13

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

SPMACT

The SPMACT (SPM activity counting) tool is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPMACT commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPMACT tool provides users with information about the occupancy of the CEM processor, origination and termination counts, and real-time in the CEM processor.

SPMACT primarily measures the occupancy of the CEM processor in a given SPM. The occupancy of a processor is the percentage of time actually spent working over a specified time interval. SPMACT measures the occupancy of the SPM and separates the measurements into the following categories:

- System: Highest priority in the SPM system. It is overhead associated with system sanity checks and restart initialization
- Application: This class refers to call processing and resource management within the SPM system
- Background: This class refers to low priority maintenance, operational measurements (OM) scanning, and terminal I/O (Command Interpreter)

Origination and termination counts are collected by SPMACT. This information helps technicians understand the relationship between traffic volume and processor occupancy.

The number of MF and DTMF resources being used is also reported along with the number available and the peak number reported during the time the tool is in use.

The SPMACT tool also collects data on

- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks

- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

In addition to providing data on the MAPCI level, updated every minute, this tool generates SPRF670 logs that are a compilation of the tool's results from the time the user enables SPMACT until it is disabled. Each line of the log corresponds to a performance measurement taken every minute by the SPMACT tool. Logs SPRF670 and SPRF671 generate every 15 minutes from the time the tool starts and keep generating until the timer runs out, or the tool stops. These logs are found on the CM through LOGUTIL.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPMACT
```

To return to CI

```
>QUIT
```

SPMACT screen

The following illustrates the SPMACT screen, that the user accesses from the SPERFORM screen.

```
  CM       MS     IOD      Net      PM      CCS      Lns      Trks     Ext      APPL
 CM Flt   ManB   KT  B    2CSLk   1 SPM     .        .        1 CC     .        .
  M        M                      *C*                         *C*


SPMACT
 0 Quit                                   SysB    ManB    OffL    CBsy    ISTb    InSv
 2 Strt            PM                       0       0       8       0      11       0
 3 Strtlog         SPM                      0       0       2       0       3       0
 4 Stoplog
 5 Stop          SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 6               LOAD NAME: CEM0013
 7               STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 8                        SYSTEM  APPLICATION      BACKGROUND
 9               CEM
10               CEMAVG
11                    ORIG        ORIGAVG        TERM           TERMAVG
12                                 MF    DTMF      ECAN          COT      TONE
13               AVAIL
14               INUSE
15               HIGH
16
17
18

   14:12 >
```

Quit (SPMACT level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-14

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

START (SPMACT level)

Purpose

The START command initializes the SPMACT tool (SPM activity counting tool) for a variable amount of time. SPMACT captures the following information:

- System Class Occupancy
- Average System Class Occupancy
- Application Occupancy
- Average Application Class Occupancy
- Background Class Occupancy
- Average Background Class Occupancy
- Originations
- Average Originations
- Terminations
- Average Terminations
- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks
- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPMACT display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 13-15

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPMACT tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 13-16

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPMACT level)

Purpose

The STOP command discontinues the SPMACT tool (SPM activity counting tool). At that time, the SPM completes the SPMACT log, if previously enabled. The SPMACT log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPMACT tool (assuming the user did not use STOPLOG).

The SPMACT display is updated to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-17

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPMACT level)

Purpose

The STRTLOG command enables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to ON and begins the SPMACT log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 670 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-18

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPMACT level)

Purpose

The STOPLOG command disables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool was running with logs ON, the STOPLOG command causes the CM to generate an SPRF 670 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-19

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

SPUSAGE

The SPUSAGE (SPM UniverSal Activity Gauging Element) is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPUSAGE commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPUSAGE tool collects information on call processing events that occur in the SPM. These events may be messages, logs, or OMs. This information is useful for monitoring the activity on the SPM from a functional view and enables the user to detect any processing difficulties on the SPM.

The results can be used to pinpoint problems and find appropriate solutions. In addition to on-screen information, the SPUSAGE tool outputs SPRF 671 logs, which are a summary of the samples taken every minute during the time the tool is activated. The logs generate every 15 minutes until the timer runs out or the tool stops.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPUSAGE
```

To return to CI

```
>QUIT
```

SPUSAGE screen

The following illustrates the SPUSAGE screen that the user accesses from the SPERFORM screen.

```
   CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPUSAGE                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM             0       0       8       0      11       0
 2 Strt                    SPM            0       0       2       0       3       0
 3 Strtlog
 4 Stoplog          SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop             LOAD NAME: CEM0013
 6                  STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                           SYSTEM  APPLICATION      BACKGROUND
 8
 9                  ABDN       EXIT       CONF       REL_CAL      TX_FAIL     DTMF_DNY
10
11                  MF_DNY     NET_PAR    NET_INTG   NET_FND      NET_NFND
12
13                  ECAN_DNY   COT_DNY    TONE_DNY
14
15
16
17
18

   14:12 >
```

Quit (SPUSAGE level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 13-20

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

START (SPUSAGE level)

Purpose

The START command starts the SPUSAGE (SPM universal activity gauging element) tool. This tool captures the following information:

- abandon message (ABDN)
- exit message (EXIT)
- confusion messages (CONF)
- release call messages (REL_CAL)
- parity error (NET_PAR)
- integrity lost (NET_INTG)
- transmit fail (TX_FAIL)
- network integrity found (NET_FND)
- network integrity not found (NET_NFND)
- ECAN allocation denied during a particular minute (ECAN_DNY)
- COT allocation denied during a particular minute (COT_DNY)
- TONE allocation denied during a particular minute (TONE_DNY)

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPUSAGE display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 13-21

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPUSAGE tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 13-22

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPUSAGE level)

Purpose

The STOP command discontinues the SPUSAGE (SPM universal activity gauging element) tool. At that time, the SPM completes the SPUSAGE log, if previously enabled. The SPUSAGE log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPUSAGE tool (assuming the user did not use STOPLOG).

The SPM updates the SPUSAGE display to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-23

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPUSAGE level)

Purpose

The STRTLOG command enables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to ON and begins the SPUSAGE log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 671 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-24

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPUSAGE level)

Purpose

The STOPLOG command disables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool is running with logs ON, the STOPLOG command causes the CM to generate an SPRF 671 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 13-25

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

9 SPMREXRG directory

The SPMREXRG is a directory is used to control the SPMREXRG Tool. The SPMREXRG Tool is resident.

Usage of SPMREXRG Tool is SAFE and without side-effects on the office.

To access the directory

To access the SPMCEMDIR directory, from the CI environment, enter the following command:

```
>SPMREXRG
```

To return to CI

To return to the CI environment, type:

```
>QUIT
```

REXREG

Purpose

The REXREG command is used to register spectrum peripheral modules (SPMs) with the System Routine EXercise (REX) Test Controller and configure the SPM REX stability database for each node. The command can only be run on the following:

- DMS Call Processing (DMSCP) SPMs
- Asynchronous Transfer Mode (ATM) connectivity based MG4000 SPMs
- Interworking (IW) SPMs
- Dynamic Packet Trunking (DPT) SPMs

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The command syntax follows:

```
>REXREG <Parms>

Parms:          {DMSCP_SPM,

                MG_SPM,

                IW_SPM,

                SPM <SPM Number> (0, 85)}
```

Parameters

Parameters are described in the following table.

Table 9-1

Parameter	Value	Description
DMSCP_SPM		Registers all the DMSCP SPMs in the office with the REX Test Controller.
MG_SPM		Registers all the MG4000 SPMs in the office with the REX Test Controller. However, it only registers the ATM connectivity based MG4000 SPMs. MG4000 IP SPMs are not supported.
IW_SPM		Registers all the IW SPMs in the office with the REX Test Controller. However, it registers only the ATM connectivity based IW SPMs. IW IP SPMs are not supported.
SPM	<SPM Number> (0, 85)	Registers the given SPM node with the REX Test Controller

Examples

The following tables provide examples of the REXREG command.

Table 9-2 REXREG command examples

Command:	**> REXREG spm 4**
MAP response:	********** REX Registration Summary for SPM 4 ********** Registration with System REX Passed ---------- ATM 0 : Store Configuration Passed. ATM 1 : Store Configuration Passed. VSP 0 : Store Configuration Passed. VSP 1 : Store Configuration Passed. CEM 0 : Store Configuration Passed. CEM 1 : Store Configuration Passed. OC3 0 : Store Configuration Passed. OC3 1 : Store Configuration Passed. VSP 2 : Store Configuration Passed. VSP 3 : Store Configuration Passed. VSP 4 : Store Configuration Passed. DLC 0 : Store Configuration Passed. DSP 0 : Store Configuration Passed. DSP 1 : Store Configuration Passed. VSP 5 : Store Configuration Passed. VSP 6 : Store Configuration Passed. DLC 1 : Store Configuration Passed. DSP 2 : Store Configuration Passed. DSP 3 : Store Configuration Passed. VSP 7 : Store Configuration Passed. VSP 8 : Store Configuration Passed.

Table 9-2 REXREG command examples

Meaning:	The message `Registration with System REX Passed` indicates that Registration of SPM 4 with REX Test Controller has passed. The message `Store Configuration Passed` indicates that the store allocation in SPM REX Database for the corresponding circuit packs has passed. In the example, Store Allocation has passed for ATM 0, ATM 1, CEM 0, CEM 1, OC3 1 and so on.
User actions	Check that all the circuit packs of SPM 4 are listed in the response.
Command:	**> REXREG MG_SPM**

MAP response:	`**********`
	` REX Registration Summary for SPM 1`
	`**********`
	`Registration Failed.Duplicated object`
	`**********`
	` REX Registration Summary for SPM 2`
	`**********`
	`Registration Failed.Duplicated object`
	`**********`
	` REX Registration Summary for SPM 3`
	`**********`
	`Registration Failed.IP variant not supported`

Meaning:	The message `Registration Failed. Duplicated object` indicates that an SPM is already registered with REX Test Controller. The message `Registration Failed. IP variant not supported` indicates that the IP variant is not supported for REX.
User actions	None.
Command:	**> REXREG IW_SPM**

Table 9-2 REXREG command examples

MAP response:	``` ********** REX Registration Summary for SPM 1 ********** Registration Failed.Duplicated object ********** REX Registration Summary for SPM 2 ********** Registration Failed.Duplicated object ********** REX Registration Summary for SPM 3 ********** Registration Failed.IP variant not supported ```
Meaning:	The message `Registration Failed. Duplicated object` indicates that an SPM is already registered with REX Test Controller. The message `Registration Failed. IP variant not supported` indicates that the IP variant is not supported for REX.
User actions	None.
Command:	**> REXREG spm 5**
MAP response:	`This SPM does not exist in the Office`
Meaning:	There is no SPM with node number 5 in the Office.
User actions	None.
Command:	**> REXREG spm 4**
MAP response:	``` ********** REX Registration Summary for SPM 4 ********** ---------- Registration with System REX Passed ---------- Store has already been configured for node. ```

Table 9-2 REXREG command examples

Meaning:	The message `Registration Passed` indicates that Registration of SPM 4 with REX Test Controller has passed. The message `Store has already been configured for node` indicates that the store allocation in SPM REX Database for SPM 4 was unnecessary because the store has already been allocated.
User actions	None.
Command:	**> REXREG spm 4**

MAP response:	`**********`
	
	` REX Registration Summary for SPM 4`
	`**********`
	
	`Registration Failed.Create Global Resource Id Failed`

Meaning:	The message `Registration Failed.Create Global Resource Id Failed` indicates that the registration of SPM 4 with REX Test Controller failed. The reason is that a Global Resource Identifier could not be created. This message indicates an ERROR.
User actions	Escalate the problem to the next level of support.
Command:	**> REXREG spm 4**

Table 9-2 REXREG command examples

MAP response:

```
************************************************
 REX Registration Summary for SPM 4
************************************************

------------------------------------------------
Registration with System REX Passed
------------------------------------------------
ATM 0 : Store Configuration Passed.
ATM 1 : Store Configuration Passed.
VSP  0 : Store Configuration Passed.
VSP  1 : Store Configuration Passed.
CEM  0 : Store Configuration Passed.
CEM  1 : Store Configuration Passed.
OC3  0 : Store Configuration Passed.
OC3  1 : Store Configuration Failed.
VSP  2 : Store Configuration Passed.
VSP  3 : Store Configuration Passed.
VSP 4 : Store Configuration Passed.
DLC 0 : Store Configuration Passed.
DSP  0 : Store Configuration Passed.
DSP  1 : Store Configuration Passed.
VSP  5 : Store Configuration Passed.
VSP 6 : Store Configuration Passed.
DLC 1 : Store Configuration Passed.
DSP  2 : Store Configuration Passed.
DSP  3 : Store Configuration Passed.
VSP  7 : Store Configuration Passed.
VSP 8 : Store Configuration Passed.
************************************************
```

Table 9-2 REXREG command examples

Meaning:	The message `Registration Passed` indicates that Registration of SPM 4 with REX Test Controller has passed. The message `Store Configuration Passed` indicates that the store allocation in SPM REX Database for the corresponding circuit packs has passed. In the example, the Store Configuration has passed for CEM 0, CEM 1, OC3 0 and so on. The message `Store Configuration Failed` indicates that the store allocation in SPM REX Database for the corresponding circuit packs has failed. In the example, the store configuration has failed for OC3 1.
User actions	De-register the SPM 4 using the REXDEREG command then re-register it.
Command:	**> REXREG spm 4**

MAP response:	`**********`
	`REX Registration Summary for SPM 4`
	`**********`
	`Registration failed.CEM 0 not Insv`
	`Registration failed.CEM 1 not Insv`

Meaning:	The CEM is not in Insv state, so the registration is not attempted.
User actions	Retry command after ensuring that CEM is in Insv state.
Command:	**> REXREG spm 3**
MAP response:	`Registration Failed.Get SPM Class Failed`
Meaning:	The registration of SPM 3 with the REX Test Controller has failed. The reason is that the class (DMSCP,MG4000 or IW) of SPM 3 could not be found. This indicates an ERROR.
User actions	Escalate the problem to the next level of support.
Command:	**> REXREG spm 3**
MAP response:	Registration Failed.IP variant not supported
Meaning:	The registration of the SPM 3 with REX Test Controller has failed. The reason is that the SPM 3 is an MG4000 IP SPM and registration of non-ATM connectivity based SPMs is not supported.
User actions	Only register ATM connectivity based SPMs using the REXREG command.
Command:	**> REXREG spm 3**

Table 9-2 REXREG command examples

MAP response:	`SREX Registration Skipped for SPM 3` `REASON : Could not extract the Mtc attributes`
Meaning:	SPM 3 is not registered with REX Test Controller. The reason is that the maintenance attributes of SPM 3 could not be obtained. This indicates an ERROR.
User actions	Escalate the problem to the next level of support.

MAP responses

Command responses are illustrated in the Examples section above.

REXDEREG

Purpose

The REXDEREG command is used to de-register Spectrum Peripheral Modules (SPMs) from the Routine EXercise (REX) Test Controller and de-configure the SPM REX stability database. The REXDEREG command can only be run on the following:

- DMS Call Processing (DMSCP) SPMs
- Asynchronous Transfer Mode (ATM) connectivity based MG4000 SPMs
- Interworking (IW) SPMs
- Dynamic Packet Trunking (DPT) SPMs

REX De-registration of MG4000 Internet Protocol (IP) SPMs and IW IP SPMs is not supported by REXDEREG command.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The command syntax follows:

```
>REXDEREG <Parms>

Parms:          {DMSCP_SPM,

                 MG_SPM,

                 IW_SPM,

                 SPM <SPM Number> (0, 85)}
```

Parameters

Parameters are described in the following table.

Table 9-3

Parameter	Value	Description
DMSCP_SPM		De-registers all the DMSCP SPMs in the office with the REX Test Controller.
MG_SPM		De-registers all the MG4000 SPMs in the office with the REX Test Controller. However, it only de-registers the ATM connectivity based MG4000 or DPT SPMs. MG4000 IP SPMs are not supported.
IW_SPM		De-registers all the IW SPMs in the office with the REX Test Controller. However, it de-registers only the ATM connectivity based IW or DPT SPMs. IW IP SPMs are not supported.
SPM	<SPM Number> (0, 85)	De-registers the given SPM node with the REX Test Controller

Examples

The following tables provide examples of the REXDEREG command.

Table 9-4 REXDEREG command examples

Command: **> REXDEREG spm 4**

MAP response:

```
************************************************
 REX De-Registration Summary for SPM 4
************************************************
ATM 0 : Store De-Configuration Passed.
ATM 1 : Store De-Configuration Passed.
VSP  0 : Store De-Configuration Passed.
VSP  1 : Store De-Configuration Passed.
CEM  0 : Store De-Configuration Passed.
CEM  1 : Store De-Configuration Passed.
OC3  0 : Store De-Configuration Passed.
OC3  1 : Store De-Configuration Passed.
VSP  2 : Store De-Configuration Passed.
VSP  3 : Store De-Configuration Passed.
VSP 4 : Store De-Configuration Passed.
DLC 0 : Store De-Configuration Passed.
DSP  0 : Store De-Configuration Passed.
DSP  1 : Store De-Configuration Passed.
VSP  5 : Store De-Configuration Passed.
VSP 6 : Store De-Configuration Passed.
DLC 1 : Store De-Configuration Passed.
DSP  2 : Store De-Configuration Passed.
DSP  3 : Store De-Configuration Passed.
VSP  7 : Store De-Configuration Passed.
VSP 8 : Store De-Configuration Passed.
------------------------------------------------
De-Registration from System REX Passed
------------------------------------------------
************************************************
```

Table 9-4 REXDEREG command examples

Meaning:	The message `De-Registration Passed` indicates that De-registration of SPM 4 from REX Test Controller has passed. The message `Store De-Configuration Passed` indicates that the store de-configuration from SPM REX Database for the corresponding circuit packs has passed. In this example, the store de-configuration from SPM REX Database passed for ATM 0, ATM 1, CEM 0, CEM 1, OC3 0 and so on.
User actions	Check that all the circuit packs of SPM 4 are listed in the response.
Command:	**> REXDEREG DMSCP_SPM**

MAP response:	`**********************************************`
	` REX De-Registration Summary for SPM 1`
	`**********************************************`
	`Store De-Configuration Failed.Invalid SPM index`
	`De-Registration Failed.Unknown grid`
	`**********************************************`
	` REX De-Registration Summary for SPM 2`
	`**********************************************`
	`Store De-Configuration Failed.Invalid SPM index`
	`De-Registration Failed.Unknown grid`
	`**********************************************`
	` REX De-Registration Summary for SPM 3`
	`**********************************************`
	`Store De-Configuration Failed.Invalid SPM index`
	`De-Registration Failed.Unknown grid`
	`**********************************************`
	` REX De-Registration Summary for SPM 4`
	`**********************************************`
	`Store De-Configuration Failed.Invalid SPM index`
	`De-Registration Failed.Unknown grid`

Table 9-4 REXDEREG command examples

Meaning:	The message `Store De-Configuration Failed.Invalid SPM index` indicates that the store de-configuration from SPM REX Database for SPM 1, SPM 2, SPM 3 and SPM 4 has failed. The reason, as indicated by the message `Invalid SPM index`, is that SPM 1, SPM 2, SPM 3 and SPM 4 have already been de-allocated from SPM REX Database. The message `De-Registration Failed.Unknown grid` indicates that the store De-Configured from SPM REX Database for SPM 1, SPM 2, SPM 3 and SPM 4 has failed. The reason indicated by message `Unknown grid` is that SPM 1, SPM 2, SPM 3 and SPM 4 have already been De-registered from REX Test Controller.
User actions	The messages indicate that SPM 1, SPM 2, SPM 3 and SPM 4 are already De-registrated from REX Test Controller. If the user's intention is to De-register SPM 1, SPM 2, SPM 3 and SPM 4 then you need do nothing further. If you wish, you can re-register SPM 1, SPM 2, SPM 3 and SPM 4 using the REXREG command and de-register them again to confirm de-registration.
Command:	**> REXDEREG MG_SPM**

MAP response:	`**********`
	` REX De-Registration Summary for SPM 1`
	`**********`
	`Store De-Configuration Passed.`
	`---------`
	`De-Registration from System REX Passed`
	`**********`
	`**********`
	` REX De-Registration Summary for SPM 2`
	`**********`
	`Store De-Configuration Failed.Invalid SPM index`
	`---------`
	`De-Registration from System REX Passed`
	`**********`

Table 9-4 REXDEREG command examples

Meaning:	The message `De-Registration Passed` indicates that De-registration of SPM 1 and SPM 2 from REX Test Controller has passed. The message `Store De-Configuration Passed` indicates that the store de-configuration from SPM REX Database for the corresponding circuit packs of SPM 1 has passed. The message `Store De-Configuration Failed.Invalid SPM index` indicates that the store de-configuration from SPM REX Database for SPM 2 has failed. The reason indicated by message `Invalid SPM index` is that SPM 2 has already been de-allocated from SPM REX Database.
User actions	The messages for SPM 2 indicate that the SPM is already De-registered from SPM REX controller and also is de-configured from SPM REX Database. You do not need to do anything further. If you want to confirm de-registration, you can re-register SPM 2 using the REXREG command and de-register it again.
Command:	**> REXDEREG IW_SPM**

MAP response:	`**********************************************`
	` REX De-Registration Summary for SPM 1`
	`**********************************************`
	`Store De-Configuration Passed.`
	`----------------------------------------------`
	`De-Registration from System REX Passed`
	`**********************************************`
	`**********************************************`
	` REX De-Registration Summary for SPM 2`
	`**********************************************`
	`Store De-Configuration Failed.Invalid SPM index`
	`----------------------------------------------`
	`De-Registration from System REX Passed`
	`**********************************************`

Table 9-4 REXDEREG command examples

Meaning:	The message `De-Registration Passed` indicates that De-registration of SPM 1 and SPM 2 from REX Test Controller has passed. The message `Store De-Configuration Passed` indicates that the store de-configuration from SPM REX Database for the corresponding circuit packs of SPM 1 has passed. The message `Store De-Configuration Failed.Invalid SPM index` indicates that the store de-configuration from SPM REX Database for SPM 2 has failed. The reason indicated by message `Invalid SPM index` is that SPM 2 has already been de-allocated from SPM REX Database.
User actions	The messages for SPM 2 indicate that the SPM is already de-registered from SPM REX controller and is also de-configured from SPM REX Database. You do not need to do anything further. If you want to confirm de-registration, you can re-register SPM 2 using the REXREG command and de-register it again.
Command:	**> REXDEREG spm 5**
MAP response:	`This SPM does not exist in the Office`
Meaning:	There is no SPM with node number 5 in the Office.
User actions	None.
Command:	**> REXDEREG spm 4**

MAP response:	`**********`
	` REX De-Registration Summary for SPM 4`
	`**********`
	`De-Registration Failed.Create Global Resource Id Failed`

Meaning:	The message `De-Registration Failed.Create Global Resource Id Failed` indicates that the De-registration of SPM 4 from REX Test Controller failed. The reason is that the Global Resource Identifier could not be created. This message indicates an ERROR.
User actions	Escalate the problem to the next level of support.
Command:	**> REXDEREG spm 4**

Table 9-4 REXDEREG command examples

MAP response:	``` ********** REX De-Registration Summary for SPM 2 ********** SRM 0 : Store De-Configuration Passed. CEM 0 : Store De-Configuration Passed. CEM 1 : Store De-Configuration Passed. OC3 0 : Store De-Configuration Failed. OC3 1 : Store De-Configuration Passed. VSP 0 : Store De-Configuration Passed. VSP 1 : Store De-Configuration Passed. DSP 0 : Store De-Configuration Passed. DSP 1 : Store De-Configuration Passed. ---------- De-Registration from System REX Passed ---------- ********** ```
Meaning:	The message `De-Registration Passed` indicates that De-registration of SPM 2 from REX Test Controller has passed. The message `Store De-Configuration Passed` indicates that the store de-allocation in SPM REX Database for the corresponding circuit packs has passed. In this example, store de-configuration has passed for CEM 0, CEM 1 and so on. The message `Store De-Configuration Failed` indicates that the store de-allocation in SPM REX Database for the corresponding circuit packs has failed. In this example, the store de-configuration has failed for OC3 0 here.
User actions	Register SPM 4 and De-register SPM 4 again, if required.
Command:	**> REXDEREG spm 3**
MAP response:	`De-Registration Failed.Get SPM Class Failed`
Meaning:	De-registration of SPM 3 from REX Test Controller has failed. The reason is that the class (DMSCP, MG4000 or IW) of SPM 3 could not be found. This indicates an ERROR.
User actions	Escalate the problem to the next level of support.
Command:	**> REXDEREG spm 3**

Table 9-4 REXDEREG command examples

MAP response:	Registration Failed.IP variant not supported
Meaning:	De-registration of SPM 3 with REX Test Controller has failed. The reason is that the SPM 3 is not an ATM connectivity based MG4000 SPM. De-registration of non-ATM connectivity based MG4000, IW and DPT SPMs is not supported.
User actions	De-register only ATM connectivity based MG4000, IW and DPT SPMs using the REXDEREG command.
Command:	**> REXDEREG spm 3**
MAP response:	`SREX De-Registration Skipped for SPM 3` `REASON : Could not extract the Mtc attributes`
Meaning:	SPM 3 is not de-registered from REX Test Controller. The reason is that the maintenance attributes of SPM 3 could not be obtained. This indicates an ERROR.
User actions	Escalate the problem to the next level of support.

MAP responses

Command responses are illustrated in the Examples section above.

14 SPMPROTDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMPROTDIR (Protection) screen commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the co

Th SPMPROTDIR co ands are as follows:

- orce
- istAlm
- anual
- uit
- elect

To access the rec

```
>M CI;M ;POST S  <spm_number> (0 to 63);SELECT OC3
al ROT
```

or

```
>MA CI;MTC;PM;POST S  <spm_number> (0 to 63);SELECT DSP
al ROT
```

or

```
>MA CI;M T S  <spm_number> (0 to 63);SELECT VSP
al ROT
```

or

```
>MA I;MT T S  <spm_number> (0 to 63);SELECT CEM
al ROT
```

or

```
>MA I;MTC;PM;POST S  <spm_number> (0 to 63);SELECT CEM
<ce number> (0 to 1 ROT
```

This ing the command:

```
>MAPCI;MTC;PM;POST SPM 0;SELECT OC3 0;PROT
```

Expired page. Please refer to section SPMPROTDIR in the ISN04 (TDM) Command Interface Change Pages (ISN-CICP-062002).

To return to CI

>QUIT ALL

SPMPROTDIR screen

The followin gure shows the S PROTDIR screen. The protection screen provides the nctionality to perfo protection switching among the circuit packs withi e same protection g up.

```
 CM       MSN     IOD      Net        PM      CCS      L        Trks     Ext      APPL
CM Flt    ManB   KT   B   2CSL      1 SPM      .               2 CE      .        .
 M         M                        *C*

Protectn                                        ManB    OffL    CBsy    ISTb    InSv
 0 Quit            PM                 0          2       7       0      11       0
 2                 SPM                0          2       2       0       2       0
 3                   CEM                         2       0       0       0       0
 4              SPM   3   M   3
 5              Prot grp:   M          de: N          Schema: N/A
 6
 7 Force        Sh0 U R A     at            Stat   Sh1  U R A Stat    Sh1  U R A Stat
 8 Manual        1 -- - -     --             anB    1   - - - ----     8   - - - ----
 9               2 -- - -     --               ---  2   - - - ----     9   - - - ----
10               3 -- - -     --          -- ----   3   - - - ----    10   - - - ----
11               4 -- - -     -          1     ---  4   - - - ----    11   - - - ----
12               5 -- - -     -          1     ---  5   - - - ----    12   - - - ----
13 Select_       6 -- - -     -          13 -- - ----   6   - - - ----    13   - - - ----
14               7 .O W A     B          14    - ----   7   - - - ----    14   - - - ----
15 ListAlm
16
17
18
     CMAP5
 Time   14:12 >
```

Force

Purpose

The Force command switches the specified working circuit pack to the spare circuit pack. I ommand <manual> in that service may be impacted if <force> comma used to switch activity.

The Force c mand initiates an u ontrolled spare. However, before dropping all current a vities, it attemps a w m spare. If a warm spare fails, a cold spare takes place. r an autonomous sp e, the Force command tries a warm spare, but if it fail cold spare takes pl e.

Command type

Menu

Command target

SuperNode

Command availab ty

Res

Command syntax

The followi is an f co nand syntax.

```
FORCE: Swi h th vices om a specified module

                                 a specified module.

For CEM, d not          wit   From and To unit numbers.

For RM, (s tch) From and To nit numbers are mandatory.

Parms: [<F m Un           r>     TO 27}}

       [<T Unit Number>  {(  O 27}}
```

Parameters

The followin able describes the p ameters.

Table 14-1

Parameter	Description
ModType	CEM, OC3, DSP, VSP
UnitNo	0-27

MAP responses

The following are responses to this command.

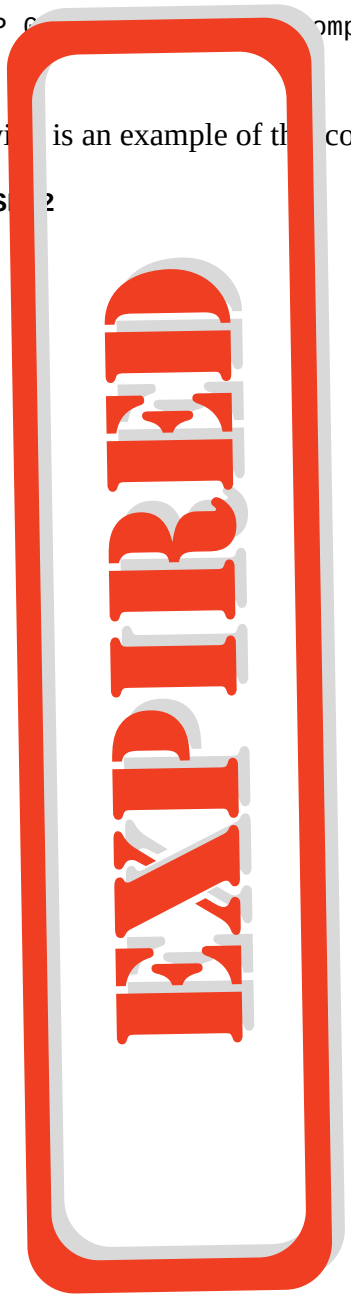
```
SPM 0 DSP 1 Force: Request has been submitted.

SPM 0 DSP 0                                    ompleted.
```

Example

The followi is an example of th command.

```
>Force DS  2
```



ListAlm for BRISC

Purpose

The ListAlm command for BRISC displays the list of alarms that are pegged against the [illegible] entity (a protection group). The alarms display in decreasing order of severity (Critical, Major, Minor, No Alarm). The command also allows the user to select a particular severity and view only display those alarms. The default value is to list all alarms (provisioned as reportable) that are pegged against the entity.

The user can view only those alarms that are provisioned to be “reportable" (this is the default value) or all alarms (those provisioned to be “reportable" and those provisioned as “not to be reported".)

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following details the syntax for the ListAlm command at the circuit pack levels:

```
Help lista

All alarms can be listed by severity by entering the command
without parameters or by a single severity using parameters 1-4. The
non-reportable alarms can be included in either case.

This command provides the following options:

1. CR : List all Critical alarms.

2. MJ : List all Major alarms.

3. MN : List all Minor alarms.

4. NA : List all No Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms: [<Option> {CR [<Action> {NRPT}],

                 MJ [<Action> {NRPT}],
```

```
MN [<Action> {NRPT}],

NA [<Action> {NRPT}],

NRPT}]
```

Parameters

The follow g table describes the arameters.

Table 14-2

Parameter	Value	Description
Option	CR	List all reportable Critical alarms posted against the given entity.
	MJ	List all reportable Major alarms posted against the given entity.
	MN	List all reportable Minor alarms posted against the given entity.
	NA	List all reportable No Alarm alarms posted against the given entity. This parameter implies that an alarm can have a severity that is less than MINOR but still needs to be displayed. This usually will not be used.
	NRP	Display the non-reportable alarms along with the reportable ones. This optional parameter can be used alone or in conjunction with each severity parameter.

MAP responses

The followi are r spo ses o thi ommand.

```
ListAlm: <  otgr_type> <pr  grp_id>

<alarm_sev  ity> <alarm_nam     <alarm_action>
```

The following table describes parameters for this command. User action depends on the alarms displayed. Refer to the appropriate NTP for any corrective actions to take when an alarm indicator appears.

Table 14-3

Parameter	Value	Descriptions
protgrp_ty	oc3_grp, dsp_grp, vsp_group	Indicates the type of protection group the alarm is charged against.
protgrp_id	1 to 28	Indicates the identification of the protection group the alarm is charged against.
alarm_sev	jor,	A less than or equal to 8 character name for the alarm. NONE indicates there are not any alarms to be reported.
alarm_nam		Up to 8 characters for the name of an alarm. NONE indicates there are no alarms to report.
alarm_actio	TP,	The values are described as follows: • RPT indicates this alarm is provisioned to be reportable. It is used to distinguish between alarms provisioned to be reportable and those provisioned to be non-reportable. • NONRPT indicates this alarm is provisioned to be non-reportable. It is displayed only when the NRPT option is issued with the Listalm command. Blanks display in the alarm_action field instead of NONRPT when the ListAlm command is issued without the NPRT optional parameter.

Examples

The followi examples illustrate at the display for the alarms would look like.

Example 1

The examples of command variances assume the following alarm is pegged against a protection group as follows: NOSPARE with severity = Major, action = RPT.

```
>mapci;mtc;pm;post spm 0; select DSP 1; prot;
```

```
>ListAlm

ListAlm:  SP_GRP 1

Critical None

Major

Minor

No_Alarm

>ListAlm

Critical

Major

Minor

No_Alarm

>ListAlm

ListAlm:

Critical

>ListAlm

ListAlm:

Major NOSP

>ListAlm

ListAlm:

Minor

>ListAlm

ListAlm:

No_Alarm

>ListAlm CR

ListAlm: DSP_GRP 1

Critical None

>ListAlm MJ NRPT
```

```
ListAlm: DSP_GRP 1

Major    NOSPARE      RPT

>ListAlm MN NRPT

ListAlm:  _GRP 1

Minor     ne

>ListAlm   NRPT

ListAlm:  P_GRP 1

No_Alarm  ne
```

Example 2

The followi exa ics o mm d variances assume the alarms NOSPARE with severit = Ma = N NRPT are pegged against a protection group.

```
>mapci;mt  om;p  0; s  ect DSP 1; prot;

>ListAlm

ListAlm:  P_GR

Critical N e

Major    N e

Minor    N  e

No_Alarm N  e

>ListAlm N  T

Critical N  e

Major    N  PARE   NONRPT

Minor    N  e

No_Alarm N  e

>ListAlm CR

Alm: DSP_GRP 1

Critical None

>ListAlm MJ
```

```
ListAlm: DSP_GRP 1

Major    None

>ListAlm MN

ListAlm:  _GRP 1

Minor     ne

>ListAlm

ListAlm:  P_GRP 1

No_Alarm  ne

>ListAlm  NRP

ListAlm:  P_GR 1

Critical  ne

>ListAlm  NRP

ListAlm:  P_GR 1

Major     SPAR  T

>ListAlm  NRPT

ListAlm:  _GR

Minor     e

>ListAlm  NRPT

ListAlm:  _GRP 1  Alarm  one
```

The followi examples of comma l variances assume that there are no alarms pegg against a protectio roup.

```
>mapci;mtc  m;post spm 0; s  ect DSP 1; prot;

>ListAlmLi  Alm: DSP_GRP 1 C  tical None

Major     N

Minor     None

No_Alarm None
```

ListAlm for SuperNode

Purpose

The ListAlm command for SuperNode displays the list of alarms associated with the selected module (directory) in an SPM. If no parameter is specified, the entire list of alarms associated with the selected module displays. However, if an alarm number is specified as a parameter to this command, details of the specified alarm display.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListAlm: Displays alarms for the posted entity. All alarms can
be listed by severity by entering the command without parms or
by a single severity using parameters 1-4. The non-reportable
alarms can be included in either case.

This command provides the following options:

1. CR : List all Critical alarms.

2. MJ : List all Major alarms.

3. MN : List all Minor alarms.

4. NA : List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms:  [<Action> {CR [<Action>] {NRPT}],
                  MJ [<Action>] {NRPT}],
                  MN [<Action> {NRPT}],
                  NA [<Action> {NRPT}],
                  NRPT}]
```

Parameters

The following table describes the parameters.

Table 14-4

Parameter	[illegible]	Description
AlarmNo	0-?	Alarm number
Option	CR	Critical alarm
	MJ	Major alarm
	MN	Minor alarm
	NA	No-Alarm alarm
	NR[illegible]	Non-reportable alarm

MAP responses

The followi[illegible] is a r[illegible] thi[illegible]ommand.

```
ListAlm: S[illegible] 0

SEVERITY      ALA[illegible]     ACT[illegible]N

---------     ---[illegible]---------

Critical      Non[illegible]

Major         MANB[illegible]A              [illegible]T

Minor         None[illegible]

No_Alarm      None[illegible]
```

Example

None

Manual

Purpose

The Manual command switches the specified circuit pack to the spare circuit pack using [illegible] ity. If the manual request impacts service, the technic[illegible] is notified. It is ne[illegible]sary to use the <force> command to perform a s[illegible]tch after notificatio[illegible]f the potential impact.

Command type

Menu

Command target

SuperNode

Command availa[illegible]ity

Res

Command syntax

The followi[illegible] is an [illegible] of co[illegible]mand syntax.

```
Manual: Sw[illegible]tch the services [illegible]rom a specified module

                                    [illegible]o a specified module.

For CEM, [illegible] not [illegible] (swit[illegible]) From and To unit numbers.

For RM, (s[illegible]tch, From and T[illegible]unit numbers are mandatory.

Parms: [<F[illegible]m Un[illegible]r>  [illegible]0 TO 27}}

       [<T[illegible] Unit Numbe[illegible]>  {[illegible]TO 27}}
```

Parameters

The followi[illegible] table describes the [illegible]ameters.

Table 14-5

Parameter	Value	Description
ModType	CEM, OC3, DSP, VS	
UnitNo		

MAP responses

The following are responses to this command.

```
SPM 0 DSP 1 Manual: Request has been submitted.
```

```
SPM 0 DSP 0 Manual: Command completed.
```

Example

The following is an example of this command.

```
>Manual D
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Restricted

Command syntax

The following is an example of command syntax.

```
Parameters: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 14-6

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

Select

Purpose

The Select command selects a [illegible] (circuit pack) in an SPM. The screen for the [illegible] displayed. This command is analogous to the Post command and one level below the Post command. The Post command can be executed from the PM level, as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen, as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an [illegible] of command syntax.

```
SELECT: Se[illegible]ect s[illegible]fied CP[illegible] for maintenance.

Parms:  [<[illegible]l C[illegible] CPK [illegible]]

         [[illegible]ll> [illegible]

         {[illegible]NIT[illegible]... [illegible] to [illegible]}]

         [[illegible]PK Type... {CE[illegible] [<All> {All}]

                               [<UNIT>... {0 TO 1}],

                          OC[illegible] [<All> {All}]

                               [<UNIT>... {0 TO 1}],

                          DSP[illegible] <All> {All}]

                               [<UNIT>... {0 TO 27}],

                          VSP [<All> {All}]

                               [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 14-7

Parameter		Description
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-2	DSP
Unit	0-2	VSP

MAP responses

The followi are responses to th command.

Table 14-8

Response	Explana n and action
The CEM, OC3, DSP, or VSP een displays in response to the cor and.	endi on the parameters to the Select command, on or m e modules are selected, and the first one in set is splayed. The user can find out what is in the ect se y way of the command listset. The next ma s used to display the next one in the set. If e tha ne type of CPK are selected (for example, ct DS all OC3 all), the select set is created in the r of M, OC3, DSP, and VSP even if DSP is specified fore OC3.
A	This resp se indicates that the Select command is issued w invalid parameters. For example, select kjhsf, sel cem 2, select dsp 99, and so on.
`EITHER incorrect option parameter(s) OR too man parameters.`	This resp se indicates that the select command is invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	

Examples

The following are examples of this command.

```
>Select CEM 0

>Select VS

>Select D    all

>Select a   cpks

>Select C    all OC3 0 DSP (
```

15 SPMPTSDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMPTSDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMPTSDIR directory contains all the commands to monitor SPM per trunk signaling (PTS) trunks.

The SPMPTSMDIR commands are as follows:

- Help
- Quit
- SGRPAUDIT
- SGRPBUILD
- SGRPDATA
- SGRPSHOW
- SGRPUPDATE
- STATS
- TRKLIST

To access the directory

>SPMPTSCI

The following displays:

SPM PTS CI Tools:

>

To return to CI

>QUIT

or

>QUIT ALL

Command description

The SPMPTSDIR command descriptions are:

- HELP — This command provides help with the directory.
- SGRPBUILD— This command allows the user to build internal PTS subgroup data. The internal PTS subgroup data consists of the BUSY and RTS messages sent to call processing. These messages are built during provisioning and downloaded to the SPM during node initialization. In case of failure in the process described above, this command allows the user to manually build the data, without changing the provisioning, and download them to the SPM.
- SGRPUPDATE — This command is similar to the previous one. Modification to table TRGSGRP triggers modification to the internal PTS subgroup data. Any modification to the data is followed by a dynamic update sent to all affected SPMs. In case of failure in this process, this command allows the user to update the PTS internal data without changing provisioning and to update all affected SPMs.
- SGRPDATA — This command displays the subgroup data queues. It displays the group and subgroup numbers. The group number is the index into table TRKGRP.
- SGRPSHOW — This commands displays the data of a given subgroup entry. Both the RTS data and BUSY data are displayed.
- SGRPAUDIT — This command turn on or off the DDM subgroup audit.
- STATS — This command displays general statistics.
- QUIT — This command quits the SPMPTSDIR directory.

Help

Purpose

The Help command provides help on the directory.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

HELP

SPM PTS CI Help:

---------------

HELP           - Disply this help

SGRPBUILD      - Build Subgroup Data

SGRPUPDATE     - Update Subgroup Data

SGRPDATA       - Query Subgroup Data Queues

SGRPSHOW       - Show Subgroup Data

SGRPAUDIT      - Turn on or off subgroup data audit

STATS          - Display and Clear Statistics

TRKLIST        - List all PTS trunks on a given

SPMQUIT           - Quit the tool
```

Parameters

None

MAP responses

None

Examples

None

Quit

Purpose

The Quit command exits the SPMPTSCI tool.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Quit
```

Parameters

None

MAP responses

None

Example

The following is an example of this command.

```
>quit
```

SGRPAUDIT

Purpose

The SGRPAUDIT command allows the user to turn the DDM subgroup audit on or off.

A warning is issued when the SGRPAUDIT STOP command is entered. The warning specifies that if a discrepancy exists between the computing module (CM) and the SPM, the discrepancy will not be corrected.

A warning is issued when the SGRPAUDIT START command is entered. The warning specifies that the per trunk signaling (PTS) subgroup audit is CPU intensive. It also indicates that the audit is performed every 30 minutes until successful.

The subgroup audit is automatically turned off when it is executed successfully. It is automatically turned on when modifications are applied to the subgroup data (for example, table TRKSGRP modifications).

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

SGRPAUDIT    <action to perform> [STOP,

                                 START]

             <which SPM> [ALL / <SPM number>]

                         [ALL / CLLI <clli name>

             <selection> [<subgroup number>]
```

Parameters

The following table describes the parameters.

Table 15-1

Parameter	Value	Description
SPM number	0 to 63	SPMNO field in table TRKMEM
cCircuit number	0 to 181	SPMCKTNO field in table TRKMEM
time slot number	1 to 24	SPMCKTTS field in table TRKMEM
subgroup number	0 to 1	SGRP field in table TRKMEM
clli name		

MAP responses

The following are responses to this command.

```
> sgrpaudit stop all clli dalimmed2 0

WARNING:  Any PTS subgroup discrepancy between the CM and the
         SPM will not be detected and will not be corrected.

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”)

> y

Audit Stop submitted for Clli: dalimmed2, subgroup number 0

> sgrpaudit start all all

WARNING:   The PTS subgroup DDM audit is CPU intensive and may
           negatively impact other tasks. The audit, which runs
           every 30 minutes, is performed until successful.

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”)

> y

Audit Start submitted for all subgroups
```

This command is issued to turn on or off the subgroup audit. Note that subgroup audit may place a heavy CPU load on the system, therefore SGRPAUDIT allows the user to decide whether the audit should be performed.

If the subgroup data audit is turned off, no discrepancies are detected between the CM and SPM. If turned on, any discrepancy is detected and corrected. A SPM700 log is generated in case of discrepancy, followed by log SPM701 indicating when the problem has cleared. The subgroup audit is performed every 30 minutes.

In case of discrepancy, wait until the problem has cleared, as indicated by log SPM701 being reported before returning all affected trunks to service. Note that call processing is only affected by the subgroup modifications after trunk RTS.

Examples

See “MAP responses."

SGRPBUILD

Purpose

The SGRPBUILD command builds internal per trunk signaling (PTS) subgroup data. The internal PTS subgroup data consists of the BUSY and RTS (return to service) messages sent to call processing. These messages are built during provisioning and downloaded to the SPM during node initialization. In case of failure during this process, the SGRPBUILD command allows data to be manually built without changing the provisioning, then downloads data to the SPM.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

SGRPBUILD <selection> {SPM <SPM number>{0 TO 63}

          <Circuit number> {0 TO 181}

          <Time slot> {1 TO 24}}
```

Parameters

The following table describes the parameters.

Table 15-2

Parameter	Value	Description
SPM number	0 to 63	SPMNO field in table TRKMEM
circuit number	0 to 181	SPMCKTNO field in table TRKMEM
time slot number	1 to 24	SPMCKTTS field in table TRKMEM

MAP responses

The following are responses to this command.

```
> sgrpbuild spm 0 4 10

Clli DALIMMED2, subgroup number 0 data successfully built for
SPM 0, circuit 4, Time Slot 10

> sgrpbuild spm 0 4 10

The Trunk is not defined on the SPM Node. Command aborted.

>sgrpbuild spm 0 4 1

The Trunk is not PTS trunk. Command aborted.
```

When issued, the response indicates whether the command was successfully performed or aborted. Command SGRPBUILD must be issued in case the creation of subgroup data failed during the trunk provisioning. Command SGRPBUILD builds the subgroup data for a subgroup for a given SPM and dynamically updates the SPM.

The specified SPM has been updated with the subgroup data. Command SGRPBUILD has no effect if the SPM was already updated. This command automatically turns on the subgroup data DDM audit.

Check SPM log SPM702 for failure about the dynamic update. If no failure is observed, manually return the affected trunk to service. If failure is observed, enter command SGRPUPDATE, which sends a dynamic update to the SPM. Command SGRPUPDATE has no effect on call processing if the trunk is not returned to service. Issue command SGRPAUDIT to turn the subgroup data DDM audit on or off.

Examples

The following are examples of this command.

Successful build

```
> sgrpbuild spm 0 4 10

Clli DALIMMED2, subgroup number 0 data successfully built for
SPM 0, circuit 4, Time Slot 10
```

Failed build

```
> sgrpbuild spm 0 4 10
```

```
The Trunk is not defined on the SPM Node. Command aborted.

>sgrpbuild spm 0 4 1

The Trunk is not PTS trunk. Command aborted.
```

SGRPDATA

Purpose

The SGRPDATA command displays the subgroup data queues, the group, and subgroup numbers. The group number is the index into table TRKGRP.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

SGRPDATA

SPM PTS Subgroup Queue:

----------------------

There are 39 PTS subgroup data entries-->

(Clli, Subgroup Number>: DALLS3, 0, Subgroup ID; 859
```

Parameters

The following table describes the parameters.

Table 15-3

Parameter	Value	Description
SPM number	0 to 63	SPMNO field in table TRKMEM
ccircuit number	0 to 181	SPMCKTNO field in table TRKMEM
time slot number	1 to 24	SPMCKTTS field in table TRKMEM
subgroup number	0 to 1	SGRP field in table TRKMEM
clli name		

MAP responses

The following is a response to this command.

```
> SGRPDATA

SPM PTS Subgroup Queue:

--------------------------------

There are 2 PTS subgroup data entries

-->(Clli, Subgroup Number): B1200, 0

-->(Clli, Subgroup Number): DALIMMED2, 0
```

This command displays the list of trunk subgroup data that is currently built. The clli and subgroup numbers display.

Issue this command to retrieve the clli and subgroup number.

Examples

The following is an example of this command.

```
> SGRPDATA

SPM PTS Subgroup Queue:

--------------------------------

There are 2 PTS subgroup data entries

--> (Clli, Subgroup Number): B1200, 0

--> (Clli, Subgroup Number): DALIMMED2, 0
```

SGRPSHOW

Purpose

The SGRPSHOW command displays the data of a given subgroup entry. Both the RTS (return to service) data and BUSY data are displayed. The RTS data and BUSY data are internal data downloaded to the SPM during initialization.

The audit for a given SPM is automatically turned off when executed successfully. It can be manually turned on or off by issuing the command SGRPAUDIT. The audit is automatically turned on when a modification is applied to the subgroup data.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

SGRPSHOW <selection> {SPM <SPM number> {0 to 63}

                           <Circuit number> {0 TO 181}

                           <Time slot> {1 to 24},

                     CLLI <clli Name> STRING

                           <subgroup number> {0 TO 1}}
```

Parameters

The following table describes the parameters.

Table 15-4 (Sheet 1 of 2)

Parameter	Value	Description
SPM number	0 to 63	SPMNO field in table TRKMEM
ccircuit number	0 to 181	SPMCKTNO field in table TRKMEM

Table 15-4 (Sheet 2 of 2)

Parameter	Value	Description
time slot number	1 to 24	SPMCKTTS field in table TRKMEM
subgroup number	0 to 1	SGRP field in table TRKMEM
clli name		

MAP responses

The following are responses to this command. The command displays the information for a subgroup entry. It shows the RTS and BUSY messages that are issued to call processing internally in the SPM. Additionally, the list of SPMs affected by the entry is provided. For each SPM, information is displayed about whether the DDM subgroup audit is active or inactive for the SPM.

```
> sgrpshow spm 0 4 10

Subgroup data for group= 86, subgroup= 0
RTS Data:
-----------
   81 00 00 DF 1A 80 0F E0 1A 87        00 25 49 10 25 00 00 00 87 00
   65 41 02 15 15 15 15 81 00 00        C9 1A CE 0F CF 07 C8 06 19 00
   00 0F 99 98 8D 8C 5B 21 10 01        9D 90 0F 28 28 78 38 44 80 00

BSY Data:
------------
   81 00 00 DF 1A 80 00 E0 1A 04        81 00 03 52 38 8C 80 00 E0 17
   01 00 00 00

SPM Audited:
----------------
0, 3, 10

SPM Not Audited:
--------------------
None.

> sgrpshow clli dalimmed2 0

Subgroup data for Clli: dalimmed2, subgroup number: 0
RTS Data:
-----------
   81 00 00 DF 1A 80 0F E0 1A 87       00 25 49 10 25 00 00 00 87 00
   65 41 02 15 15 15 15 81 00 00       C9 1A CE 0F CF 07 C8 06 19 00
   00 0F 99 98 8D 8C 5B 21 10 01       9D 90 0F 28 28 78 38 44 80 00

BSY Data:
------------
   81 00 00 DF 1A 80 00 E0 1A 04       81 00 03 52 38 8C 80 00 E0 17
   01 00 00 00

SPM Audited:
----------------
0, 3, 10
SPM Not Audited:
--------------------
None.
```

Examples

See “MAP responses."

SGRPUPDATE

Purpose

The SGRPUPDATE command is similar to SGRPBUILD. (SGRPBUILD allows the user to build internal per trunk signaling [PTS] subgroup data.) Modification to table TRGSGRP triggers modification to the internal PTS subgroup data. Any modification to the data is followed by a dynamic update sent to all affected SPMs. In case of failure in this process, the SGRPUPDATE command allows the user to update the PTS internal data without changing provisioning and to update all affected SPMs.

A warning is issued when the SGRPUPDATE command is entered. The warning specifies that the command may take some time to complete and place a heavy CPU load on the system. Upon completion, all affected trunks should be manually returned to service.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

SGRPUPDATE <clli name> <subgroup number>
```

Parameters

The following table describes the parameters.

Table 15-5

Parameter	Value	Description
subgroup number	0 to 1	SGRP field in table TRKMEM
clli name		

MAP responses

The following is a response to this command.

```
> sgrpupdate dalimmed2 0

WARNING: The PTS subgroup DDM update is CPU intensive and may
negatively impact other tasks. All SPM trunks in the group must
be BSYed and RTSed for the update to takeeffect.

Do you wish to continue?

Please confirm (“YES", “Y", “NO", or “N")> y

Subgroup change submitted to all SPM

> sgrpupdate dalimmed3 0

dalimmed3 is not a valid trunk group CLLI.

SGRPUPDATE command aborted.

> sgrpupdate dalimmed2 1

Clli dalimmed2, subgroup 1 has no entry and cannot be updated
```

When issued, the response indicates that the request was submitted to all affected SPMs. This command must be issued in case a modification to an entry in table TRKSGRP failed to update the affected SPMs. When issued, all affected SPMs are dynamically updated. This allows the user to rebuild the internal data without deprovisioning the entry in table TRKSGRP.

When issued, this command rebuilds the subgroup data for a given subgroup as if a modification was made in table TRKSGRP. A dynamic update is sent to each SPM having trunk(s) using the subgroup. Additionally, the subgroup data audit is automatically turned on.

Check SPM log SPM702 for failure about the dynamic updates. If no failure is observed, manually return to serve all affected trunks. In case of failure, enter the command again. This command has no effect on call processing if the trunks are not returned to service.

Example

The following is an example of this command.

```
> sgrpupdate dalimmed2 0

WARNING: The PTS subgroup DDM update is CPU intensive and may
negatively impact other tasks. All SPM trunks in the group must
be BSYed and RTSed for the update to take effect.
```

```
Do you wish to continue?

Please confirm (“YES", “Y", “NO", or “N")> y

Subgroup change submitted to all SPM

> sgrpupdate dalimmed3 0

dalimmed3 is not a valid trunk group CLLI.

SGRPUPDATE command aborted.

> sgrpupdate dalimmed2 1

Clli dalimmed2, subgroup 1 has no entry and cannot be updated
```

STATS

Purpose

The STATS command displays general statistics.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCISTATS <action to perform> [PRINT,
                                  CLEAR]
```

Parameters

None

MAP responses

The following are responses to this command.

```
> stats clear

Are you sure you want to clear SPM PTS statistics,(yes/no)?

> yes

Statistics cleared.

> stats print

SPM PTS Global Statistics:
------------------------------
   CM: Carrier In-Service notification          :   0
   CM: Carrier Out-Of-Service notification      :   0
   CM: CFL Trunks on node In-Service            :   0
   CM: SPM node Out-Of-Service notification     :   0
   CM: Busy all Non-CPB trunks notification     :   0
   CM: Failure for sending office parameters    :   1
   CM: Failure for sending RTS request          :   0
   CM: Failure for sending BSY request          :   0
   CM: RTS request failure (No reply from SPM)  :   0
   CM: Success for sending RTS request          :   0
   CM: Success for sending BSY request          :   7
   CM: Successful RTS reply received            :   0
   SPM: Failure in retrieving trunk resource    :   0
   SPM: Failure in retrieving subgroup data     :   0
   SPM: No ABBIT resource                       :   0
   SPM: Packed S-link not connected             :   0
   SPM: Robbed Bit Signaling not configured     :   0
   SPM: Messaging failure                       :   0
```

This command displays statistics to the user. These statistics may be used to diagnose trunk RTS (return to service) problems. When a trunk RTS fails, the trunk is either set into the LO (lockout) or SYSB (system busy) state. A condition is pegged for each error condition detected. In the display, the prefix “CM" or “SPM" indicates where the condition was encountered.

The following table shows system actions and provides actions to perform to clear some trunk RTS failures. To diagnose RTS failure, follow this approach:

1. Clear the statistics using the STATS CLEAR command.
2. Attempt the trunk RTS.
3. Display the statistics again.

Based on the counters being incremented, perform the following actions.

Table 15-6 (Sheet 1 of 2)

System action	Explanation and action
CM: Carrier In-Service notification	A carrier is now in-service state. An attempt to RTS the affected trunks is performed.
CM: Carrier Out-Of-Service notification	A carrier is now in out-of-service state. Affected trunks are set to the CFL (carrier failure) state.
CM: CFL Trunks on node In-Service	An SPM node is now in-service. An attempt to RTS the affected trunks is performed.
CM: SPM node Out-Of-Service notification	An SPM node is in out-of-service state. Affected trunks are set to PMB (peripheral busy) state.
CM: Busy all Non-CPB trunks notification	This specifies that the C-Side messaging failed. All trunks that are not in CPB (call processing busy) are set to the CFL (Carrier Failure) state.
CM: Failure for sending office parameters	The affected trunk RTS is aborted and the trunk is set to SYSB state. Verify C-side messaging and check for SPM swerrs that are displayed as CM logs.
CM: Failure for sending RTS request	The affected trunk RTS failed and the trunk is set to SYSB state. Verify C-side messaging and check for SPM swerrs that are displayed as CM logs.
CM: Failure for sending BSY request	The affected trunk is set to BUSY, CFL, or PMB (depending on the original condition) in the CM. The SPM state is not updated. Verify C-side messaging and check for SPM swerrs that are displayed as CM logs.
CM: RTS request failure (No reply from SPM)	The affected trunk is set to SYSB state. It indicates that the RTS request was successfully sent to the SPM, but no reply was received. Check for SPM swerrs.
CM: Success for sending RTS request	The request was successfully sent to the SPM. The command was not necessarily performed successfully by the SPM. Check for SPM swerrs.
CM: Success for sending BSY request	Both CM and SPM trunk state are updated to BSY.

Table 15-6 (Sheet 2 of 2)

System action	Explanation and action
CM: Successful RTS reply received	The trunk RTS was successfully performed by the SPM. The trunk is set to IDLE. Check for CM swerrs and/or traps.
SPM: Failure in retrieving trunk resource	Member provisioning failed. The trunk is not known by the SPM. The trunk RTS failed and the trunk is set to SYSB state. The trunk member was not provisioned properly. Deprovision, then provision the trunk again.
SPM: Failure in retrieving subgroup data	Subgroup provisioning failed. The subgroup data associated with the trunk is not known in the SPM. The trunk RTS failed and the trunk is set to SYSB state. The trunk subgroup was not properly provisioned. Use the SGRPBUILD or SGRPUPDATE commands to update the SPM with the subgroup data.
SPM: No ABBIT resource	There is no DSP ABBIT resource available. The trunk RTS has failed and the trunk is set to LO state. RTS a DSP carrying AB traffic. The trunk is automatically returned to service.
SPM: Packed S-link not connected	The connection between the DSP and the OC-3 is not made. The trunk RTS failed and the trunk is set to LO state. The trunk member was not provisioned properly. Deprovision, then provision the trunk again.
SPM: Robbed Bit Signaling not configured	The hardware on the OC-3 RM is not configured for robbed bit signaling. The trunk RTS failed and the trunk is set to LO state. Make sure that one OC-3 RM is INSV. If the OC-3 RM is INSV, an attempt to configure the OC-3 RM for robbed bit signaling is performed when the trunk is returned to service. If the problem persists, look at SPM swerrs.
SPM: Messaging failure	An internal messaging error occurred in the SPM. In the case of a trunk RTS, the RTS failed and the trunk is set to SYSB state. Look at SPM swerrs.

Examples

See “MAP responses."

TRKLIST

Purpose

The TRKLIST command lists all PTS trunks on a given SPM.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMPTSCI

TRKLIST <action to perform>  {SHORT,

                              LONG}
```

Parameters

None

MAP responses

None

16 SPMTKCNV directory

This chapter describes the syntax, purpose, and semantics of the SPMTKCNV commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMTKCNV commands in alphabetical order are as follows:

- Bsy
- Convert
- CvCarr
- Display
- Hold
- Next
- Post
- Quit
- RTS
- Swapp
- Undo

ATTENTION
Refer to Chapter , “TTP directory," for detailed information about the Level SPM command.

To access the directory

```
>mapci;mtc;trks;ttp;spmtkcnv
```

or

```
>mapci;mtc;trks;ttp;level spmtkcnv
```

or

```
>mapci;mtc;trks;ttp;level spm
```

To return to CI

```
>QUIT ALL
```

SPMTKCNV screen

The following is an example of the SPMTKCNV screen.

```
 CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
 M        M                   *C*

SPMTKCNV                POST        DELQ              BSYQ        DIG
 0 Quit                 TTP 17-0021
 2 Post_                CKT TYPE     PM NO.            COM LANG   STA S R  DOT TE  RESULT
 3
 4
 5 Bsy
 6 Rts
 7                      CARR1:                                  CARR2:
 8                      12345678901234567890123456789012345 -->  12345678901234567890123456789012345
 9
10
11 Hold
12 Next
13
14 Convert_
15 Display_            Level:
16 Swapp
17 CvCarr_
18 Undo_

   14:12 >
```

About the SPMTKCNV directory

The commands at the SPMTKCNV level monitor and change trunk provisioning. Any lower level command can be entered from the SPMTKCNV level.

The SPMTKCNV level commands perform the following functions:

- Move the posted trunk member to another location and return the trunk to service in the new location. The trunk location refers to the PM name and number followed by the digital equipment number of the DS1 carrier circuit accommodating the trunk. This is followed by the time slot number on the DS1 circuit. When moving the trunk member, its subgroup number may also be changed.
- Display carrier occupancy information. For example, what trunks reside in the 24 time slots of a DS1 carrier circuit. Two DS1s can be displayed at the

same time in origination and destination display positions. The naming of the display positions refers to the trunk migration direction when moving them from one DS1 onto another. Origination can be swapped with destination at any time with the SWAP command.

- Move all trunks from the origination carrier—which is the DS1 carrier circuit displayed in the origination display position on the TTP MAP—to new locations on the destination carrier. The destination carrier is the carrier circuit displayed in the destination position in the TTP MAP window.
- Reverse the action described in the previous bullet.

The trunk relocation functionality at the SPMTKCNV level is an automated method of trunk members datafilling changes in table TRKMEM.

Level specific commands at SPMTKCNV level are described in the following table.

Table 16-1 (Sheet 1 of 2)

Menu item	Command	Description
0	Quit_	The QUIT command causes the system to leave the current level and return to the lower MAP level from which the command >LEVEL SPMTKCNV was issued.
2	Post_	The POST command posts one or more circuits for maintenance.
3, 4		Not used
5	Bsy	The BSY command busies the circuit in the control position.
6	Rts	The RTS command returns to service the circuit in the control position.
7-10		Not used
11	Hold	
12	Next	The NEXT command places the next circuit (next in the posted set of circuits) in the control position.
13		Not used.

Table 16-1 (Sheet 2 of 2)

Menu item	Command	Description
14	Convert_	The CONVERT command moves the trunk that is in the posted position into a new location, as specified by command parameters 2, 3, 4, and 5. The first parameter specifies a new trunk subgroup number. The circuit is posted again in its new location and returned to service or to its previous busy state.
15	Display_	The DISPLAY command displays information about time slots occupancy on the given carrier, which is the DS1 carrier circuit specified by the command parameters 2, 3, and 4. The first command parameter specifies the MAP display position 1 or 2.
16	Swap	The SWAP command swaps destination with origination and reverses direction of the displayed arrow. The arrow direction is relevant for the command CVCARR, which moves trunks from the origination to the destination.
17	CVCARR	The CVCARR command makes all trunks migrate from the displayed origination carrier into new locations on the displayed destination carrier. The free location on the destination carrier are occupied in the order of increasing slot number. If there are not enough free slots on the destination carrier, a warning displays.
18	Undo	The UNDO command reverses the action of the lastest CONVERT or CVCARR command. Each action can be undone at any time. The following UNDO options are provided in the form of UNDO parameters: • >undo con — reverses the latest >con • >undo cvc — reverses the latest >cvc • >undo new — reverses the latest >con or >cvc The >undo new command moves back the N trunks displayed by the CONVERT or CVCARR commands. N = new, just moved, trunk.

Bsy

Purpose

The Bsy command busies the circuit in the control position.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
BSY-- BUSY OUT THE CIRCUIT

Parms: [<STATE>   {INB,

                   MB,

                   SB,

                   ALL,

                   A}]

       [<ALL> {ALL,

               A}]
```

Parameters

Parameters are described in the following table.

Table 16-2

Parameter	Value	Description
All	ALL	All the selected OC3s in the selected SPM

MAP responses

The following responses indicate the requests to manually busy both CPKs was submitted and successfully completed.

```
SPM 0 OC3 0 Busy: Request has been submitted.
```

```
SPM 0 OC3 0 Busy: Command completed.

SPM 0 OC3 1 Busy: Request has been submitted.

SPM 0 OC3 1 Busy: Command completed.
```

Examples

The following are examples of this command.

```
>Bsy

>Bsy all
```

CONVERT

Purpose

The CONVERT command converts the posted trunk to the trunk member specified by the command's parameters. The command again posts the new trunk member. The command returns the changed trunk member to service if the trunk before conversion was not in manual busy (MB) or in-service busy (INB) state. If it was in MB or INB state, the new member is put into its previous state, MB or INB, respectively.

Before converting, the command checks whether the trunk can be converted. No action is taken if conversion should not or cannot be performed. The conversion should not be performed on trunks seized manually or seized by call processing. The conversion cannot be performed if the trunk is not equipped (already removed from its location) or if the new location specified by the user is occupied by another trunk member.

Command type

Menu

Command target

SuperNode

Command availability

Nonres

Command syntax

The following is an example of command syntax.

```
The command converts the posted trunk to trunk specified by the
parameters.

Parms: <SGRPNO> {0 TO 1}

       <PM and CARR> {DTC  <DTCNO> {0 TO 511}

                           <DTCCKNTO> {0 TO 19},

                     SPM   <SPMNO> {0 TO 63}

                           <SPMCKNTO> {0 TO 181},

                     DTCI  <DTCINO> {0 TO 511}

                           <DTCICKNTO> {0 TO 19},

                     IDTC  <PMNO> {0 TO 511}
```

```
                                    <PMCKNTO> {0 TO 19},
                               TDTC <PMNO> {0 TO 511}
                                    <PMCKNTO> {0 TO 19},
          <SLOT> {1 TO 24}
```

Parameters

The following table describes the parameters.

Table 16-3

Parameter	Value	Description
SGRP_NO	0, 1	Trunk subgroup number
PM_TYPE	DTC, SPM, DTCI, IDTC, TDTC	PM type
EXT_PMNO	Value depends on PM_TYPE	External peripheral module number
CARR	Value depends on PM_TYPE	Carrier circuit number
TIME SLOT	1 to 24	Time slot number

MAP responses

The following are responses to the command.

Table 16-4 (Sheet 1 of 4)

Response	Explanation and action
>con Next par is: <SGRPNO> {0 TO 1} Enter: <SGRPNO> <PM and CARR> <SLOT> > 0 Next par is: <PM and CARR> {DTC <DTCNO> {0 TO 511} <DTCCKTNO> {0 TO 19}, SPM <SPMNO> {0 TO 63} <SPMCKTNO> {0 TO 181}, DTCI <DTCINO> {0 TO 511} <DTCICKTNO> {0 TO 19}, IDTC <DEQNO> {0 TO 511} <IDTCCKTNO> {0 TO 19}, TDTC <DEQNO> {0 TO 511} <TDTCCKTNO> {0 TO 19}} Enter: <PM and CARR> <SLOT> >dtc 1 14 Next par is: <SLOT> {1 TO 24} Enter: <SLOT> > 2 Conversion OK.	A trunk was posted and the command was issued with valid parameters added successively at the system requests.
>con Trunk moved. or Trunk moved. ERROR: Trunk not re-posted. or ERROR: Trunk stays INB. or ERROR: Trunk lost CIC when moving! Check swerr logs.	Check swerr logs.

Table 16-4 (Sheet 2 of 4)

Response	Explanation and action
S/W error. Trunk conversion failed.	Check swerr logs.
>con 0 >abort No action taken.	If an incomplete CONVERT command is entered, the system replies by listing the next parameters to be entered. If aborted, no action is taken.
>con 1 dtc 0 14 2 WARNING: You alter trunk subgroup no. Continue? y/n	While posting a trunk, the user typed subgroup number 1, but the posted trunk had the subgroup number 0.
y SUBGROUP DATA NOT FILLED YET Trunk conversion failed.	If y is entered, the trunk subgroup number of 1, which was the first command parameter, is not accepted. Datafill TRKSGRP table before converting the trunk to subgroup 1.
n	If n is entered, the system takes no other action.
>con 0 dtc 5 1 2 Peripheral does not exist Trunk conversion failed.	An attempt was made to post a trunk, but the carrier DTC 5 1 does not exist.
>con 0 dtc 0 19 1 Carrier is not equipped Trunk conversion failed .	An attempt was made to post a trunk, but the carrier DTC 0 19 is not equipped.
>con 0 dtc 0 13 1 TRUNK ALREADY DATAFILLED. Trunk conversion failed.	An attempt was made to post a trunk, but the trunk location dtc 0 13 1 is not free. This means the trunk circuit dtc 0 13 1 is datafilled with another trunk.

Table 16-4 (Sheet 3 of 4)

Response	Explanation and action
`No action taken: no trunk posted, or no trunk deleted.`	No trunk is posted (because it is unknown or cannot be moved) or the posted trunk was removed from its carrier location and remains posted as NEQ (which means it cannot be moved from an already empty location).
`No action taken: trunk seized by another user or CallP busy.`	The posted trunk has been seized by a third party and cannot be manipulated by the user.

`Trunk conversion failed.`
 	
`You may clear the 'failed' info (F) by re-displaying carrier.`
 	
`The F info does not alter commands execution.`
	When the posted trunk displays on a carrier and CONVERT failed on that trunk, the system updates the display by putting an F in the appropriate spot on the screen. The two system messages inform the user how to deal with the F-info.

`CIC not assigned.`	The posted trunk is not datafilled in table C7TRKMEM, which assigns CICs to trunks. The converted trunk will not have a CIC.

`>con 0 dtc 0 14 24`
`Trunk moved.`
 	
`POSTED CKT IDLED`
`SHORT CLLI IS: LOOPC`
`OK, ALL BSYQ IS SET IN POST SET`
	The posted trunk is converted. The three messages that follow are TTP messages generated when a trunk is posted again. Those messages should be removed from the TTP messaging flow once the SPMTKCNV level is entered. However, this task requires input/output functions to be rewritten.

Table 16-4 (Sheet 4 of 4)

Response	Explanation and action
>post d dtc 0 14 >con 0 dtc 0 8 24 Warning: Posted Set has been truncated to 10 members. POSTED CKT IDLED SHORT CLLI IS: LOOPC OK, ALL BSYQ IS SET IN POST SET	The warning means that the Post command created a trunk set having more than 10 elements. The CONVERT command truncated the set to 10 elements. The 9 iterations of the TTP map NEXT command works as if no CONVERT command had been issued. However, the 10th iteration will signal an empty trunk set.
>con Command disabled.	The command cannot be executed due to an office memory/resources problem already signaled when the user was entering the level.
>con ERROR: Posted member data error.	An application returned a bad code. Check software error logs.

Examples

The user interface for the CONVERT command includes screen updates and additional information if the posted trunk is on a displayed carrier. The possible display/message additional information is described in the DISPLAY command description and in the examples that follow.

Example 1

Enter the following:

```
>con 0 spm 1 5 6
```

The following screen displays.

```
CKT TYPE      PM NO.   COM LANG    STA S R  DOT TE  RESULT
2W S7 S7 SPM 1 5 6 SPMOG    0  IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: SPM 1 5   (3 trks)          CARR2:  DTC  0 17  (21 slots)
  9            TS:  12345678901234567890123 4 -->  TS: 12345678901234567890123 4
 10                 *---*N------------------          *-**--------------------
 11 Hold
 12 Next
 13
 14 Convert_   con 0 spm 1 5 6
 15 Display_   Conversion OK.
 16 Swap       POSTED CKT IDLED
 17 CvCarr     HORT CLLI IS: SPMOG
 18 OK,        ALL BSYQ IS SET IN POST SET

  TEAM0
 Time 11:18  >
```

Example 2

Enter the following:

>con 0 spm 1 5 5

The following screen displays.

```
CKT TYPE      PM NO.   COM LANG    STA S R  DOT TE  RESULT
2W S7 S7 DTC 0 17 5      SPMOG    0  IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: SPM 1 5   (2 trks)          CARR2:  DTC  0 17  (20 slots)
  9            TS:  12345678901234567890123 -->  TS: 12345678901234567890123
 10                 *---*--------------------          *-**F--------------------
 11 Hold
 12 Next
 13
 14 Convert_   con 0 spm 1 5 5
 15 Display_   TRUNK ALREADY DATAFILLED.
 16 Swap       Failed to update TRKMEM tuple...
 17 CvCarr     You may clear the 'failed' info (F) by redisplaying carrier(s).
 18            The F info does not alter commands execution.

  TEAM0
 Time 11:18  >
```

CVCARR

Purpose

The CVCARR command moves all trunks from the displayed origination carrier (which is carrier in position 1 or in position 2, depending on the arrow direction, in the example that follows, origination is CARR2, destination is CARR1) into successive free slots on the second displayed carrier (destination carrier). The new trunk members are displayed as “N" and they are left in BSY INB state.

For instance, the current display is as follows:

```
 6 Rts
 7            CARR1: SPM 1 5   (22 slots)        CARR2:  DTC  0 17  (4 trks)
 9            TS:  12345678901234567890123 <--  TS: 12345678901234567890123
10                 *---*--------------------          *-***--------------------
11 Hold
```

After the CVCARR command is entered, the following displays:

```
 6 Rts
 7            CARR1: SPM 1 5   (18 slots)        CARR2:  DTC  0 17  (0 trks)
 9            TS:  12345678901234567890123 <--  TS: 12345678901234567890123
10                 ******-------------------          -------------------------
11 Hold
```

Command type

Menu

Command target

SuperNode

Command availability

Nonres

Command syntax

The following is an example of command syntax.

```
cvc
```

Parameters

None

MAP responses

The following are responses to the command.

Table 16-5 (Sheet 1 of 2)

Response	Explanation and action
`Display both carriers, and try again.`	The user did not display carriers in both positions.
`No trunks to be moved. No action taken.`	The displayed origination carrier has no trunks.
`No free space on the destination carrier. No action taken.`	All time slots on the destination carrier are datafilled with trunks.
`Only a part of trks can be moved. Continue? y/n`	There is not enough space on the destination carrier for all trunks on the origination carrier. Depending on the user reply, y or n, the system moves the trunk partially, or takes no action.
`CIC not assigned for <number> trunk(s).`	Some trunks on the origination carrier are not datafilled in C7TRKMEM table, which defines CICs. All trunks (those without or with CIC) are moved from origination to destination carrier.
`WARNING: Conversion failed for <number> trunk(s); redisplay carriers to detect unexpected datafill and to clear the failed into F.`	The trunk was seized by call processing or by another user. It cannot be offlined or moved.

`ERROR: Software error occurred for the trunks displayed as E.`
 	
`WARNING: Command CVCARR skips the trunks displayed.`
	A call processing error at the level of Table Editor occurred.

`Command disabled.`	The level cannot be used to change the data base due to a memory allocation problem that apeared when the level started. The level can be used only to visualize carrier occupancy with trunks (DISPLAY command).
`ERROR: <number> trunk(s) lost CIC when moving! Check swerr logs.`	Some trunks moved without errors, but some other trunks produced the CIC error.

Table 16-5 (Sheet 2 of 2)

Response	Explanation and action
WARNING: Backup for <number> trunk(s) failed; command UNDO is (partially) disabled.	
Done.	The trunks are moved from the origination carrier onto the destination carrier and the new time slot occupancy on the carriers displays. The moved trunks are displayed as the character N.

Example

At the TTP MAP level, enter any of the following commands:

```
>level spm

>dis 1 spm 1 4

>dis 2 dtc 0 17

>post g spmic
```

The following screen displays.

```
CKT TYPE      PM NO.     COM LANG     STA S R  DOT TE  RESULT
2W S7 S7      SPM  1 5 1 SPMIC 0      IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7      CARR1: SPM 1 5      (3 trks)      CARR2: DTC 0 17      (23 slots)
  9     TS: 12345678901234567890123 4 -->   TS: 12345678901234567890123 4
 10          **-*--------------------           -*----------------------
 11 Hold
 12 Next
 13 ...
```

Enter the >cvc command. The following displays:

```
CKT TYPE      PM NO.        COM LANG    STA S R  DOT TE  RESULT
2W S7 S7      SPM     1 5 1 SPMIC 0     NEQ
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7    CARR1: SPM 1 5   (0 trks)          CARR2: DTC 0 17    (21 slots)
  9   TS: 12345678901234567890123 -->    TS: 12345678901234567890123
 10        ------------------------           N*NN--------------------
 11 Hold
 12 Next
 13          Done.
```

DISPLAY

Purpose

The DISPLAY command displays information about time slots occupancy on the a given carrier, which is the DS1 carrier circuit specified by the command parameters 2, 3, and 4. The first command parameter specifies the MAP display position 1 or 2. The command displays the carrier in one of the two positions shown on SPMTKCNV level screen. The displayed carrier shows its 24 time slots and their occupancy in the following way:

```
CARR1:  SPM  1 5   (3 trks)      CARR2:
TS:  123456789012345678901234 --> TS:       123456789012345678901234
     -*--**------------------
```

Here, a carrier (SPM 1 5) displays in position 1, showing three trunks (*, time slots 2.5 and 6) and 21 free slots (-).

Command type

Menu

Command target

SuperNode

Command availability

Nonres

Command syntax

The following is an example of command syntax.

```
The command displays time slot occupancyon a given carrier.

The following conventions are used:

* : a trunk in this location

- : a free slot

N : a new trunk, just moved into this location

F : command failed to move trunk from here

E : an error occurred when processing this location
```

```
Parms: <POSITION> {1 TO 2}

       <PM and CARR> {DTC  <DTCNO> {0 TO 511}

                           <DTCCKTNO> {0 TO 19},

                      SPM  <SPMNO> {0 TO 63}

                           <SPMCKTNO> {0 TO 181},

                      DTCI <DTCINO> {0 TO 511}

                           <DTCICKTNO> {0 TO 19},

                      IDTC <DEQNO> {0 TO 511}

                           <IDTCCKTNO> {0 TO 19},

                      TDTC <DEQNO> {0 TO 511}

                           <TDTCCKTNO> {0 TO 19}}
```

Parameters

The following table describes the parameters.

Table 16-6

Parameter	Value	Description
POS	1, 2	Display position
PM_TYPE	DTC, SPM, DTCI, IDTC, TDTC	PM type
EXT_PMNO	Value depends on PM_TYPE	External peripheral module number
CARR	Value depends on PM_TYPE	Carrier circuit number

MAP responses

The following are the responses to the command:

Table 16-7 (Sheet 1 of 2)

Response	Explanation and action
`Peripheral does not exist.` `No action taken.`	The entered peripheral (for example DTC 5) does not exist.
`Carrier is not provisioned.` `No action taken.`	The carrier is not provisioned.

Table 16-7 (Sheet 2 of 2)

Response	Explanation and action
`Carrier class “Without Trunks".`	The carrier class is “without trunks".
`No action taken.`	
`S/W error.`	A software error report has been generated.
`Displaying another carrier is ok.`	
No action taken.	An application failed without any explanation.
`Done.`	A successful execution of the command. The specified carrier displays in the required display position.

Examples

Enter the following:

`>post g spmic`

The following displays:

```
CKT TYPE      PM NO.      COM LANG    STA S R  DOT TE  RESULT
2W S7 S7      SPM   1 4 1 SPMIC 0     IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7       CARR1:                                CARR2:
  9       TS: 12345678901234567890123 4 -->    TS: 12345678901234567890123 4
 10
 11 Hold
 12 Next
 13 ...
```

Enter the following:

`>dis 2 spm 1 4`

The following displays:

```
CKT TYPE      PM NO.       COM LANG     STA S R  DOT TE  RESULT
2W S7 S7      SPM    1 4 1 SPMIC 0      IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7      CARR1:                          CARR2: SPM 1 4 (23 slots)
  9      TS: 12345678901234567890123 4 --> TS: 12345678901234567890123 4
 10           **-*-------------------        *-----------------------
 11 Hold
 12 Next
 13 ...
```

Enter the following:

>dis 1 dtc 0 17

The following displays:

```
CKT TYPE      PM NO.  COM LANG      STA S R  DOT TE  RESULT
2W S7 S7      DTC 0 14 24 SPMIC 0   IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7      CARR1: DTC 0 15   (3 trks)         CARR2: SPM 1 4  (23 slots)
  9     TS: 12345678901234567890123 4 -->    TS: 12345678901234567890123 4
 10          **-*-------------------           *-----------------------
 11 Hold
 12 Next
 13 ...
```

Hold

Purpose

The Hold command holds the posted trunk.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
HOLD--HOLD THE POSTED TRK
```

Parameters

None

MAP responses

None

Example

None

Next

Purpose

The Next command places the next circuit (next in the posted set of circuits) in the control position.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
NEXT--GET THE CKT INDICATED

Parms: [<SAVE/HOLD> {S,

                     1,

                     2,

                     3,

                     P}]

       [<SAVE/EX> {S,

                  E}]
```

Parameters

None

MAP responses

None

Example

None

Post

Purpose

The Post command posts one or more circuits for maintenance.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
POST--POST A NEW SET

Parms: [<SET TYPE>  {T [<CLLI1> STRING]
                       [<CNRI1> {0 TO 9999}]
                       [<....> STRING],
                    G <CLLI> STRING
                       [<CLNR> {0 TO 9999}]
                       [<TO> {TO}]
                       <CLNR> {0 TO 9999}
                    TM <TMNAME> STRING
                       <TMNR> {0 TO 9999}
                       [<NR_ON_TM> {0 TO 29}]
                       [<TO> {TO}]
                       <NR_ON_TM> {0 TO 29}
                     P <PMNAME> STRING
                       <PMNR> {0 TO 9999}
                       [<PNO> {0 TO 29}]
```

```
                                    [<TO> {TO}]
                                    <PNO> {0 TO 29}
                                  D <DEQNM> {DCM,
                                             LTC,
                                             DTC,
                                             DCA,
                                             DCT,
                                             IDTC,
                                             ILTC,
                                             RCC,
                                             PDTC,
                                             DTC,
                                             TLTC,
                                             TRCC,
                                             RCCI,
                                             DTCI,
                                             ICP,
                                             TMS,
                                             RCC2,
                                             SRCC,
                                             HSI2,
                                             RCO2,
                                             SPM,
                                             PLGC}
                                    <DEQ_NO> {0 TO 511}
                                    [<CARR_NO> {0 TO 181}]
                                    [<TS_NO> {1 TO 31}]
```

```
  [<TO> {TO}]
  <TS_NO> {1 TO 31},
E <DESNM> {DES}
  <DESNO> {0 TO 511}
  [<DESSIDE> {R,
              S,
              B}]
  [<DESCKT> {0 TO 63}]
  [<TO> {TO}]
  <DESCKT> {0 TO 63},
B <BSYQ>  {A,
           C,
           F,
           B},
S [<STA_SET> {NEQ,
              INB,
              MB,
              NMB,
              PMP,
              RMB,
              SB,
              CFL,
              LO,
              DEL,
              INI,
              CPB,
              CPD,
```

```
                                RES,
                                IDL,
                                SZD}],
                        A <STATE> {NEQ,
                                   MB,
                                   NMB,
                                   PMB,
                                   RMB,
                                   SB,
                                   CFL,
                                   LO,
                                   DEL,
                                   INI,
                                   CPB,
                                   CPD,
                                   RES,
                                   IDL,
                                   SZD}
                          [<CLLI> STRING],
                        TB <CLLI> STRING
                          <TYPE> {M [<FORMAT> {HC [<LIST> {ALL}],
                                                  MR [<LIST> {ALL}],
                                                  ALL}]
                                     [<ITEM> {0 TO 9}],
                                   CP [<FORMAT1> {HC[<LIST>{ALL}],
                                                  MR [<LIST>{ALL}],
                                                  ALL}]
```

```
                [<ITEM> {0 TO 9}]},
CPTERMERR,
F <CARR_NAME> STRING
  [<TS_NO> {1 TO 31}]
  [<TO> {TO}]
  [<TS_NO> {1 TO 31}],
BC <CLLI> STRING
   <CKTN> {0 TO 9999},
   <CLLI> STRING
WB <CKTN> {0 TO 9999}}]
```

Parameters

None

MAP responses

None

Example

None

Quit

Purpose

The Quit command causes the system to leave the current level and return to the lower MAP level from which the command >LEVEL SPMTKCNV was issued.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 16-8

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

RTS

Purpose

The RTS command returns to service the circuit in the control position.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS-- RETURN THE CIRCUIT TO SERVICE

PARMS: [<OPT> {ALL,
               RLS,
               RTS,
               A,
               R,
               C <TYPE> {M,
                         CP,
                         BOTH},
               IDL,
               RES,
               INI}
       [opt2>] {ALL,
                RLS,
                RTS,
                A,
```

```
                    R,
                    C <TYPE>   {M,
                                CP,
                                BOTH},
                    IDL,
                    RES,
                    INI}]
```

Parameters

Parameters are described in the following table.

Table 16-9

Parameter	Value	Description
All	ALL	All the selected CEMs
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor is returned without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 OC3 0 RTS: Request has been submitted.

SPM 0 OC3 0 RTS: Command completed.

SPM 0 OC3 1 RTS: Request has been submitted.

SPM 0 OC3 1 RTS: Command completed.
```

Example

The following are examples of this command.

```
>RTS

>RTS all

>RTS nowait
```

SWAP

Purpose

The SWAP command reverses the displayed arrow direction and swaps the origination with the destination.

The carrier display changes because the origination carrier displays number of its trunks, while the destination carrier displays the number of its free slots. For instance, if the current display is

```
 6 Rts
 7            CARR1: SPM 1 5   (2 trks)          CARR2:  DTC  0 17  (20 slots)
 9            TS:  12345678901234567890123 4 -->  TS: 12345678901234567890123 4
10                 *---*--------------------          *-**N--------------------
11 Hold
```

After the >swap command, the display is

```
 6 Rts
 7           CARR1: SPM 1 5   (22 slots)        CARR2:  DTC  0 17  (4 trks)
 9           TS:  12345678901234567890123 4 <--  TS: 12345678901234567890123 4
10                *---*--------------------          *-**N--------------------
11 Hold
```

Command type

Menu

Command target

SuperNode

Command availability

Nonres

Command syntax

The following is the command syntax.

```
swap
```

Parameters

None

MAP responses

In response to the SWAP command, arrows change direction and trunks/free slots display as shown in “Example."

Example

The following is an example of this command.

```
>swap
```

If the >swap command is entered again, the display changes to the following:

```
 6 Rts
 7            CARR1: SPM 1 5   (2 trks)          CARR2:  DTC  0 17  (20 slots)
 9            TS:  12345678901234567890123 4 -->  TS: 12345678901234567890123 4
10                 *---*--------------------      *-**N-------------------
11 Hold
```

UNDO

Purpose

The UNDO command reverses the action of the lastest CONVERT or CVCARR command. Each action can be undone at any time. The following UNDO options are provided in the form of UNDO parameters:

- >undo con — reverses the latest >con
- >undo cvc — moves trunks moved by CVCARR back into their previous locations and changes the trunk states back to their original states
- >undo new — moves trunks displayed as “N" (new) into their previous location and changes the trunk states back to their original states

Command type

Menu

Command target

SuperNode

Command availability

Nonres

Command syntax

The following is an example of command syntax.

```
undo <OPTION> {con, cvc, new}
```

Parameters

The following table describes the parameters.

Table 16-10

Parameter	Value	Description
UNDO_OPTIONs_T	CON, CVC, NEW	Undo options

MAP responses

The following are responses to this command.

Table 16-11 (Sheet 1 of 2)

Response	Explanation and action
`No conversion to undo.`	User tries to undo a conversion action before any conversion action took place.
`Nothing to undo.`	User tries to undo an operation that has not been performed.
`Post trunk <clli, member> and try again.`	User typed UNDO CON when the trunk moved by CON is no longer posted.
`Trunk can't be moved back right now.`	User typed UNDO CON when the trunk moved by CON was immediately seized by a third party.
`ERROR: Posted circuit data error.`	An application returned a bad return code.

`Display carrier <carrier name> in position <pos> ... and try again.`
or
`Display carrier <carrier name> in position <pos>`
`Display carrier Nanother carrier name> in position <another pos>`
`... and try again.`
	Display the carriers to be affected by the UNDO CVC command.

`ERROR: UNDO failed. Trunk lost CIC! Check swerr logs.`
or
`S/W ERROR. UNDO failed.`	

`ERROR: <number> trunk(s) failed to move back.`
or
`ERROR: CIC not restored for <number> trunk(s).`
or
`ERROR: <number> trunk(s) changed state.`
	Third party changed trunk datafill after the CVC action was performed and made the UNDO action not possible.

Table 16-11 (Sheet 2 of 2)

Response	Explanation and action
`UNDO NEW disabled.`	The user tried to undo an action that did not leave the “N" traces on the carrier displays, or the traces are no longer around and the UNDO NEW is disabled.

`Trunk moved back.`
or
`Trunk moved back.`
`ERROR: agent data may be corrupted.`
or
`Trunk moved back.`
`ERROR: trunk <clii, member> not reposted.`
or
`Trunk moved back.`
`ERROR: trunk <clii, member> stays INB.`
or
`Trunk moved back`
`ERROR: Trunk lost CIC when moving back! Check swerr logs`
	The trunk was moved back.

Example

None

17 SPMVSPDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMVSPDIR commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMDIR commands are as follows:

- Bsy
- ListAlm
  - — for BRISC
  - — for SuperNode
- ListRes
- ListSet
- LoadMod
- Next
- OffL
- Prot
- QueryMod
- Quit
- RTS
- Select
- Tst

To access the directory

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT VSP <unit_no>
```

or

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT VSP all
```

or

```
>MAPCI;MTC;PM;POST <spm_number> (0 to 63);SELECT CEM
<cem_number> (0 to 1)
```

This is an example of entering the command:

```
>MAPCI;MTC;PM;POST SPM 0;SELECT VSP 0
```

To return to CI

```
>QUIT ALL
```

SPMVSPDIR screen

The following illustrates the VSP screen.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   1MBCd   1 SPM    .       .       1 CC    .       .
  M        M                  *C*                     *C*


VSP                                 SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                PM            0       2       7       0      11       0
 2                     SPM           0       2       2       0       2       0
 3 ListSet               VSP         0       0       2       0       0       0
 4 ListRes
 5                   SPM  3   VSP 0   InAct   OffL
 6 Tst
 7 Bsy               Loc : Row E  FrPos 8 ShPos 40 ShId 1 Slot  1  Prot Grp : 1
 8 RTS               Default Load: DSP0013                         Prot Role: Working
 9 Offl
10 LoadMod
11
12 Next
13 Select_
14 QueryMod
15 ListAlm
16 Prot
17 SPERFORM
18

   CMAP5
 Time   16:48 >
```

Bsy

Purpose

This command changes the state of a selected VSP to out-of-service. This command is used to change the state of a VSP resource module (RM) to manual busy (ManB) from an offline (OffL) state, an INSV state, and a system busy (SYSB) state.

DANGER

Possible service interruption

Changing from INSV to ManB may have an impact on service.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bsy:  Busy the selected CPK(s).

Parms: [<ALL> {ALL}]

       [{<Force> {FORCE}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 17-1

Parameter	Value	Description
All	ALL	All the selected VSPs within the SPM node
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following response indicate the requests to manually busy both CEMs was submitted and successfully completed.

```
SPM 0 VSP 0 Busy: Request has been submitted.

SPM 0 VSP 0 Busy: Command completed.

SPM 0 VSP 1 Busy: Request has been submitted.

SPM 0 VSP 1 Busy: Command completed.
```

Examples

The following are examples of this command.

```
>Bsy

>Bsy all

>Bsy Nowait
```

ListAlm for BRISC

Purpose

This command displays to the MAP terminal the list of alarms that are pegged against the posted entity (SPM node, CEM, DSP, VSP, or OC3). The alarms display in decreasing order of severity (Critical, Major, Minor, No Alarm). The command also allows the user to select a particular severity and display only those alarms. The default value is to list all alarms pegged against the entity.

Note: This ListAlm command information is the same for each entity that can be posted (SPM node, CEM, DSP, VSP, or OC3).

The user can view only those alarms that are provisioned to “reportable" (the default value) or all alarms including those provisioned as “not to be reported".

Command type

Menu

Command target

BRISC

Command availability

Res

Command syntax

The following is the syntax for the ListAlm command at the SPM node level:

```
>LISTALM CRLISTALM <option>
```

Parameters

The following table describes the parameters for the syntax.

Table 17-2 (Sheet 1 of 2)

Parameter	Value	Description
Option	CR	List all reportable Critical alarms posted against the given entity.
	MJ	List all reportable Major alarms posted against the given entity.
	MN	List all reportable Minor alarms posted against the given entity.

Table 17-2 (Sheet 2 of 2)

Parameter	Value	Description
	NA	List all reportable No Alarm alarms posted against the given entity. This parameter implies that an alarm can have a severity that is less than minor but still needs to be displayed. Usually, this is not be used.
	NRPT	Display the non-reportable alarms along with the reportable ones. This optional parameter can be used alone or in conjunction with each severity parameter and the full parameter described in the “MAP responses" table.

MAP responses

The following are responses to this command.

```
ListAlm: SPM <spm_number> (0 to 63)

<alarm_severity>   <alarm_name>   <alarm_action>
```

The following table describes the parameters for this command.

Table 17-3 (Sheet 1 of 2)

Parameter	Description
alarm_severity	Critical, Major, Minor, No Alarm
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Table 17-3 (Sheet 2 of 2)

Parameter	Description
alarm_name	A less than or equal to 8 character name for the alarm. The text “non" indicates there are no alarms to report.
alarm_action	The actions are as follows: • RPT indicates this alarm is provisioned to be reportable. It is used to distinguish between alarms provisioned to be reportable and those provisioned to be non-reportable. • NONRPT indicates this alarm is provisioned to be non-reportable. It is only displayed when the NRPT option is issued with the ListAlm command. • Blanks display in the alarm_action field instead of NONRPT when the ListAlm command is issued without the NRPT optional parameter. In addition, when an alarm is provisioned as non-reportable, the alarm name displays in response to the ListAlm command.
Note: User action depends on the alarms displayed. Refer to the proper NTP for corrective actions.	

Examples

The following examples are a series of command variances that illustrate what the display for the alarms would look like. This example uses fictitious alarm names.

The examples assume the alarms are pegged against the Node: nalm1 Critical, nalm2 Critical, nalm3 Major, nalm4 Minor, nalm5 Minor Non-Reportable, nalm6 No Alarm.

The CEM has the following alarms pegged against it: calm1 Critical, calm2 Minor Non-Reportable, calm3 Major.

The DSP has the following alarms pegged against it: dalm1 Minor, dalm2 Minor Non-Reportable, dlam3 Major.

The OC3 has the following alarms against it: oalm1 Major, oalm2 Minor, oalm3 Minor, oalm4 No Alarm non-reportable.

There are no alarms pegged against the VSP in this example.

The following are a series of command variances:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT


>mapci;mtc;pm;post spm 0;listalm MJ
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               NALM3       RPT


>mapci;mtc;pm;post spm 0;listalm MN
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
```

```
>mapci;mtc;pm;post spm 0;listalm NA

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT
Major               NALM3       RPT
Minor               NALM4       RPT
Minor               NALM5       NONRPT
No_Alarm            NALM6       RPT


>mapci;mtc;pm;post spm 0;listalm CR NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            NALM1       RPT
Critical            NALM2       RPT

>mapci;mtc;pm;post spm 0;listalm MN NRPT

ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Minor               NALM4       RPT
Minor               NALM5       NONRPT
```

```
>mapci;mtc;pm;post spm 0;select cem 0;listalm
ListAlm: SPM 0 CEM 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               None
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT
Major               CALM3       RPT
Minor               CALM2       NONRPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select cem 0;listalm CR
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            CALM1       RPT


>mapci;mtc;pm;post spm 0;select cem 0;listalm MJ NRPT
ListAlm: SPM 0 CEM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select DSP 0;listalm
ListAlm: SPM 0 DSP 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm CR
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               DALM3       RPT
Minor               DALM2       NONRPT
Minor               DALM1       RPT
No_Alarm            None


>mapci;mtc;pm;post spm 0;select DSP 0;listalm MJ NRPT
ListAlm: SPM 0 DSP 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Major               CALM3       RPT
```

```
>mapci;mtc;pm;post spm 0;select OC3 0;listalm
ListAlm: SPM 0 OC3 0


SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            None



>mapci;mtc;pm;post spm 0;select OC3 0;listalm NRPT
ListAlm: SPM 0 OC3 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               OALM1       RPT
Minor               OALM2       RPT
Minor               OALM3       RPT
No_Alarm            OALM4       NONRPT
```

When alarms are listed with no alarms raised, the following displays:

```
>mapci;mtc;pm;post spm 0;listalm
ListAlm: SPM 0

SEVERITY            ALARM       ACTION
--------            -----       ------
Critical            None
Major               None
Minor               None
No_Alarm            None
```

ListAlm for SuperNode

Purpose

This command displays the list of alarms associated with the selected module (circuit pack) in an SPM. If no parameter is specified, the entire list of alarms associated with the selected module is displayed. However, if an alarm number is specified as a parameter to this command, details of the specified alarm display.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListAlm: Display alarms for the posted entity. All alarms can
be listed by severity by entering the command without parms or
by a single severity using parameters 1-4. The non-reportable
alarms can be included in either case.

This command provides the following options:

1. CR : List all Critical alarms.

2. MJ : List all Major alarms

3. MN : List all Minor alarms

4. NA : List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms:  [<Option> {CR [<Action> {NRPT}],

                   MJ [<Action> {NRPT}],

                   MN [<Action> {NRPT}],

                   NA [<Action> {NRPT}],

                   NRPT}]
```

Parameters

The parameters are described in the following table.

Table 17-4

Parameter	Value	Description
AlarmNo	0-?	Alarm number
Option	CR	Critical alarm
	MJ	Major alarm
	MN	Minor alarm
	NA	No-Alarm alarm
	NRPT	Non-reportable alarm

MAP responses

The following are responses to this command.

```
ListAlm: SPM 0  VSP 0

SEVERITY    ALARM       ACTION

-----------------------------

Critical    None

Major       MANBNA          RPT

Minor       None
```

Example

None

ListRes

Purpose

This command displays a list of all the resources provided by the voice signal processor (VSP) on the screen. The list contains the datafilled and the actual resources provided by the VSP.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListRes: Display a list of resources for the CPK.
```

MAP responses

This following response lists total datafilled and actual resources for all the DSPs and VSPs in the SPM. The actual resources may be different from the datafilled resources if some of the DSPs or VSPs are not in-service (INSV).

```
COT     :   Datafilled:   0   Actual:   0

DTMF    :   Datafilled:   0   Actual:   0

ECAN    :   Datafilled:   2   Actual:   2

ToneSyn:    Datafilled:   0   Actual:   0

ABBIT   :   Datafilled:   0   Actual:   0

MF      :   Datafilled:   0   Actual:   0
```

LoadMod

Purpose

The LoadMod command loads the selected module with the specified load.

Note: The load must be datafilled in table PMLOADS and table MNCKTPAK.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LoadMod: Load the selected CPK

Parms:  [<Load Name>  STRING]

         [<ALL {ALL}]

         [<Options> {NOWAIT,

                     NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 17-5

Parameter	Value	Description
LoadName	String up to 32 characters	
Options	NOWAIT, NOREPLY	

MAP response

The following is a response to this command.

```
SPM 0 VSP 0 Load: Request has been submitted.
```

Examples

The following are examples of this command.

```
>LoadMod
```

```
>LoadMod <filename>
```

Next

Purpose

The Next command goes to the next of the selected modules.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Next: Step to the next CPK in post set.

Parms: [<CPK TYPE> {CPKTYPE}]
```

OffL

Purpose

The OffL command changes the state of a selected module to offline (OffL).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
OffL: OffLine the selected CPK(s).

Parms: [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

The parameters are described in the following table.

Table 17-6

Parameter	Value	Description
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 VSP 0 Offline: Request has been submitted.

SPM 0 VSP 1 Offline: Request has been submitted.

SPM 0 VSP 0 Offline: Command completed.
```

```
SPM 0 VSP 1 Offline: Command completed.
```

Example

The following is an example of this command.

```
>Offl
```

Prot

Purpose

The Prot command brings up the protection screen for the module from whose screen the Prot command is issued.

Refer to Chapter, “SPMPROTDIR directory," for more information about the Protection screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Prot: Enter the Protection level MAP
```

MAP response

When the command is executed, the Protection screen displays.

Example

The following is an example of this command.

```
>Prot
```

QueryMod

Purpose

The QueryMod command queries a specified module (circuit pack) in the SPM about its location, default load, or running load. The QueryMod command displays only the information for the voice signal processor (VSP) RM in the post set, even when the user enters the SELECT VSP ALL command.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
QueryMod: Query misc info about the CPK.
```

MAP responses

The following are responses to this command.

```
VSP 0 Istb Act    Loc: Row D FrPos 4 ShPos 59 ShId 1 Slot 1

Default Load: DSP0013            Actual Load: DSP0014
```

Example

The following is an example of this command.

```
>QueryMod
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 17-7

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

The following is an example of this command.

```
>Quit
```

RTS

Purpose

The RTS command changes the state of a selected voice signal processor (VSP) to in-service (INSV) from manual busy (ManB).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS: Return the selected CPK(s) to service.

Parms: [<ALL> {ALL}]

       [<Force> {Force}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 17-8

Parameter	Value	Description
All	ALL	All the selected VSPs
Force	FORCE	
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 VSP 0 RTS: Request has been submitted.

SPM 0 VSP 0 RTS: Command completed.

SPM 0 VSP 1 RTS: Request has been submitted.

SPM 0 VSP 1 RTS: Command completed.
```

Example

The following are examples of this command.

```
>RTS

>RTS all

>RTS nowait
```

Select

Purpose

The Select command selects a specified module (circuit pack) in a the SPM. The screen for the selected module is displayed. This command is analogous to the Post command. The Post command can be executed from the PM level as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SELECT: Select specified CPKs for maintenance

Parms: [<All CPKs> {AllCPKs}]

       [<All> {All}]

       {<UNIT? ... {0 to 27}]

       [<CPK Type>... {CEM [<All> {All}]

                           [<UNIT>... {0 TO 1}],

                       OC3 [<All> {All}]

                           [<UNIT>... {0 TO 1}],

                       DSP [<All> {All}]

                           [<UNIT>... {0 TO 27}],

                       VSP [<All> {All}]

                           [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 17-9

Parameter	Value	Explanation and action
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-27	DSP
Unit	0-27	VSP

MAP responses

The following are responses to this command.

Table 17-10

Response	Explanation and action
`The CEM, OC3, DSP, or VSP screen displays in response to the command.`	Depending on the parameters to the Select command, one or more modules are selected, and the first one in the set is displayed. The user can find out what is in the select set by way of the command listset. The next command is used to display the next one in the set. If more than one type of CPK are selected (for example, select DSP, all OC3 all), the select set is created in the order of CEM, OC3, DSP, and VSP even if DSP is specified before OC3.
`EITHER incorrect optional parameter(s) OR too many parameters.`	This response indicates that the Select command is issued with invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	

Examples

The following are examples of this command.

```
>Select CEM 0
```

```
>Select VSP 9
```

```
>Select DSP all

>Select allcpks

>Select CEM all OC3 0 DSP 0
```

Tst

Purpose

The Tst command tests the selected module(s). This command would invoke the diagnostic tests on the circuit pack. The <all> option applies to all the selected VSPs. If VSPs are selected using the command *>select cpk all*, then *>Tst all* will run the tests on both VSPs. If the selection is done by *>select cpk 0*, then *>Tst all* would only apply to VSP 0. This is essentially be same as executing the Tst command without any parameter. If the Tst command is executed without any parameter, tests would be run on the VSP that currently displays on the screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Tst: Test the selected CPK(s)

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 17-11 (Sheet 1 of 2)

Parameter	Value	Description
All	ALL	All the selected VSPs
Prompt	NOPROMPT	Suppress the yes/no prompts

Table 17-11 (Sheet 2 of 2)

Parameter	Value	Description
Options	NOWAIT	Cursor returns without waiting for the command to complete.
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

Table 17-12

Response	Explanation and action
`Command rejected. The VSP is offline.`	The tests cannot be performed when the state of the VSP is offline.
`SPM 1 VSP 0 Test: Request has been submitted.` `SPM 1 VSP 0 Test: Command Completed.`	The test request was submitted and the command completed successfully.

`This operation will be executed on 2 VSPs`
`Please confirm (“YES", “Y", “NO", or “N"):`
`y`
 	
`SPM 1 VSP 0 Test: Request has been submitted.`
`SPM 1 VSP 0 Test: Command Completed.`
`SPM 1 VSP 1 Test: Request has been submitted.`
`SPM 1 VSP 1 Test: Command Completed.`
	The *tst all* command was executed after selecting both VSPs (select VSP all). The test requests were submitted for both VSPs and the command completed successfully.

Examples

The following are examples of this command.

```
>Tst

>Tst Nowait

>Tst all
```

SPERFORM

The SPERFORM (SPM performance measurement) is a subdirectory of the Spectrum Peripheral Module (SPM). The SPERFORM subdirectory is accessed from the SPMDIR directory.

The SPERFORM subdirectory contains the following two subdirectories:

- SPMACT (SPM module activity)
- SPUSAGE (SPM USAGE)

The SPERFORM tool is a MAPCI-based tool that serves as an umbrella for several subtools. These tools provide statistical analysis on the SPM peripheral.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM
```

or

```
>MAPCI;MTC;PM;Post SPM all;SPERFORM
```

To return to CI

```
>QUIT
```

SPERFORM screen

The following illustrates the SPERFORM screen.

```
   CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
    M        M                   *C*                     *C*


SPERFORM                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                        1       0       8       0      10       0
 2 SPMAct        SPM                       0       0       2       0       3       0
 3 SPUSAGE
 4              SPM    3  ISTb   Loc: Site HOST Floor   5 Row E  FrPos  8
 5              LOAD NAME: CEM0013
 6              STATUS:             REASON:                 LOGS:     TIME:
 7
 8
 9
10
11
12
13
14
15
16
17
18

    14:12 >
```

Additional information

This command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

The following response displays if the user posts class SMG4KDA.

Table 17-13

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

SPMACT

The SPMACT (SPM activity counting) tool is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPMACT commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPMACT tool provides users with information about the occupancy of the CEM processor, origination and termination counts, and real-time in the CEM processor.

SPMACT primarily measures the occupancy of the CEM processor in a given SPM. The occupancy of a processor is the percentage of time actually spent working over a specified time interval. SPMACT measures the occupancy of the SPM and separates the measurements into the following categories:

- System: Highest priority in the SPM system. It is overhead associated with system sanity checks and restart initialization
- Application: This class refers to call processing and resource management within the SPM system
- Background: This class refers to low priority maintenance, operational measurements (OM) scanning, and terminal I/O (Command Interpreter)

Origination and termination counts are collected by SPMACT. This information helps technicians understand the relationship between traffic volume and processor occupancy.

The number of MF and DTMF resources being used is also reported along with the number available and the peak number reported during the time the tool is in use.

The SPMACT tool also collects data on

- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks

- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

In addition to providing data on the MAPCI level, updated every minute, this tool generates SPRF670 logs that are a compilation of the tool's results from the time the user enables SPMACT until it is disabled. Each line of the log corresponds to a performance measurement taken every minute by the SPMACT tool. Logs SPRF670 and SPRF671 generate every 15 minutes from the time the tool starts and keep generating until the timer runs out, or the tool stops. These logs are found on the CM through LOGUTIL.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPMACT
```

To return to CI

```
>QUIT
```

SPMACT screen

The following illustrates the SPMACT screen, that the user accesses from the SPERFORM screen.

```
  CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPMACT                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM            0       0       8       0      11       0
 2 Strt                    SPM           0       0       2       0       3       0
 3 Strtlog
 4 Stoplog          SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop             LOAD NAME: CEM0013
 6                  STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                           SYSTEM  APPLICATION      BACKGROUND
 8                  CEM
 9                  CEMAVG
10                       ORIG        ORIGAVG        TERM           TERMAVG
11                                    MF    DTMF      ECAN         COT      TONE
12                  AVAIL
13                  INUSE
14                  HIGH
15
16
17
18

   14:12 >
```

Quit (SPMACT level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 17-14

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

START (SPMACT level)

Purpose

The START command initializes the SPMACT tool (SPM activity counting tool) for a variable amount of time. SPMACT captures the following information:

- System Class Occupancy
- Average System Class Occupancy
- Application Occupancy
- Average Application Class Occupancy
- Background Class Occupancy
- Average Background Class Occupancy
- Originations
- Average Originations
- Terminations
- Average Terminations
- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks
- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPMACT display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 17-15

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPMACT tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 17-16

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPMACT level)

Purpose

The STOP command discontinues the SPMACT tool (SPM activity counting tool). At that time, the SPM completes the SPMACT log, if previously enabled. The SPMACT log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPMACT tool (assuming the user did not use STOPLOG).

The SPMACT display is updated to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 17-17

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPMACT level)

Purpose

The STRTLOG command enables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to ON and begins the SPMACT log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 670 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 17-18

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPMACT level)

Purpose

The STOPLOG command disables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool was running with logs ON, the STOPLOG command causes the CM to generate an SPRF 670 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 17-19

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

SPUSAGE

The SPUSAGE (SPM UniverSal Activity Gauging Element) is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPUSAGE commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPUSAGE tool collects information on call processing events that occur in the SPM. These events may be messages, logs, or OMs. This information is useful for monitoring the activity on the SPM from a functional view and enables the user to detect any processing difficulties on the SPM.

The results can be used to pinpoint problems and find appropriate solutions. In addition to on-screen information, the SPUSAGE tool outputs SPRF 671 logs, which are a summary of the samples taken every minute during the time the tool is activated. The logs generate every 15 minutes until the timer runs out or the tool stops.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPUSAGE
```

To return to CI

```
>QUIT
```

SPUSAGE screen

The following illustrates the SPUSAGE screen that the user accesses from the SPERFORM screen.

```
  CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPUSAGE                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM             0       0       8       0      11       0
 2 Strt                    SPM            0       0       2       0       3       0
 3 Strtlog
 4 Stoplog          SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop             LOAD NAME: CEM0013
 6                  STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                           SYSTEM  APPLICATION      BACKGROUND
 8
 9                  ABDN       EXIT       CONF       REL_CAL      TX_FAIL     DTMF_DNY
10
11                  MF_DNY     NET_PAR    NET_INTG   NET_FND      NET_NFND
12
13                  ECAN_DNY   COT_DNY    TONE_DNY
14
15
16
17
18

   14:12 >
```

Quit (SPUSAGE level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 17-20

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

START (SPUSAGE level)

Purpose

The START command starts the SPUSAGE (SPM universal activity gauging element) tool. This tool captures the following information:

- abandon message (ABDN)
- exit message (EXIT)
- confusion messages (CONF)
- release call messages (REL_CAL)
- parity error (NET_PAR)
- integrity lost (NET_INTG)
- transmit fail (TX_FAIL)
- network integrity found (NET_FND)
- network integrity not found (NET_NFND)
- ECAN allocation denied during a particular minute (ECAN_DNY)
- COT allocation denied during a particular minute (COT_DNY)
- TONE allocation denied during a particular minute (TONE_DNY)

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPUSAGE display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 17-21

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPUSAGE tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 17-22

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPUSAGE level)

Purpose

The STOP command discontinues the SPUSAGE (SPM universal activity gauging element) tool. At that time, the SPM completes the SPUSAGE log, if previously enabled. The SPUSAGE log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPUSAGE tool (assuming the user did not use STOPLOG).

The SPM updates the SPUSAGE display to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 17-23

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPUSAGE level)

Purpose

The STRTLOG command enables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to ON and begins the SPUSAGE log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 671 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 17-24

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPUSAGE level)

Purpose

The STOPLOG command disables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool is running with logs ON, the STOPLOG command causes the CM to generate an SPRF 671 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 17-25

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

18 TTP directory

This chapter describes the syntax, purpose, and semantics of the TTP commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is exeucted.

To access the directory

```
>mapci;mtc;trks;ttp
```

This is an example of entering the command:

```
>mapci;mtc;trks;ttp
```

To return to CI

```
>QUIT ALL
```

TTP screen

The following is an example of the TTP screen.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
  M        M                   *C*                     *C*

TTP                    POST        DELQ              BSYQ        DIG
 0 Quit                TTP 17-0021
 2 Post_               CKT TYPE     PM NO.            COM LANG   STA S R  DOT TE  RESULT
 3 SEIZE
 4
 5 BSY
 6 RTS
 7 TST
 8
 9 CktInfo
10 CktLoc
11 Hold
12 NEXT
13 RLT
14 Ckt_
15 TrnslVf_
16 StkSdr_
17 Pads
18 Level_

   14:12 >
```

LEVEL

Purpose

Although, the LEVEL command is an existing TTP command, level SPMTKCNV extends the command parameter set. The symbolic parameter SPMTKCNV, or SPM, passed to the LEVEL command, allows the user to automatically convert trunks using the MAP terminal.

For example, enter the following command:

```
>mapci;mtc;trks;ttp;level spm
```

The level is specified by the level name (spm), its menu, level name (spmtkcnv:), and the level prompt >display.

Command type

Menu

Command target

SuperNode

Command availability

Nonres

Command syntax

The following is an example of command syntax.

```
LEVEL -- TTP LEVEL COMMANDS

Parms: <LEVEL> {MANUAL,

                MAN,

                MONITOR,

                MON,

                DATATTP,

                DAT,

                C7TTP,

                C7T,

                TRKCONV,

                TRK,
```

```
PRADCH,

PRA,

XDCME,

XDC,

SPMTKCNV,

SPM,

ECHOCTRL,

ECH}
```

Parameters

The following table describes the parameters.

Table 18-1

Parameter	Value	Description
TTP MAP LEVEL NAME	spmtkcnv or spm	Trunk conversion level

MAP responses

The following are responses to the command.

Table 18-2 (Sheet 1 of 2)

Response	Explanation and action
`LEVEL SEIZED BY USER <user ID>. TRY LATER.`	The SPMTKCNV level can be accessed by one user at a time. This response displays at TTP MAP screen when a second user tries to enter the SPMTKCNV level. The second user may try to enter this level after the first user quits from the level.
`TTP ownership problem.`	User cannot access the level because the TTP directory and TTP display parted from each other.
`TTP no. invalid`	User cannot access the level because the TTP number has been changed and TTP lost contact with its directory.
`Failed to enter SPMTKCNV level--table TRKMEM does not exist.`	The present office datafill does not allow for trunk conversion activities.

Table 18-2 (Sheet 2 of 2)

Response	Explanation and action
`Failed to enter SPMTKCNV level--table C7TRKMEM does not exist.`	The trunk conversion cannot proceed without the specified datafill.

`Failed to enter SPMTKCNV level--corrupted TRKMEM cust_data.`
or
`Failed to enter SPMTKCNV level--corrupted C7TRKMEM cust_data.`
	The level cannot be used before fixing the corrupted data.

`ERROR: Unable to allocate SPMTKCNV directory.`
or
`ERROR: Failed to allocate SPMTKCNV event.`
	The level cannot be used before fixing the unexpected error.

`ERROR: store or semaphore allocation error. Commands CON and CVC disabled.`	User can access the level, but can use it only for carrier occupancy information (DISPLAY command). Trunk data modifications are not possible due to unexpected memory/resources problem.

Example

The TTP map level appears like this when the >level spm command is entered successfully:

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%   [ standard   TTP MAP   display ]  %%%%%%%%%%%%%%%%%%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%%% 0 Quit
%%% 2 Post_
%%% 3
%%% 4
%%% 5 Bsy
%%% 6 Rts
%%% 7       CARR1:                                         CARR2:
%%% 9       TS: 123456789012345678901234 -->   TS: 123456789012345678901234
%%%10
%%%11 Hold
%%%12 Next
%%%13
%%%14 Convert_
%%%15 Display_
%%%16 Swap
%%%17 CvCarr
%%%18
%%%  TEAM0
%%%Time 11:12  >
```

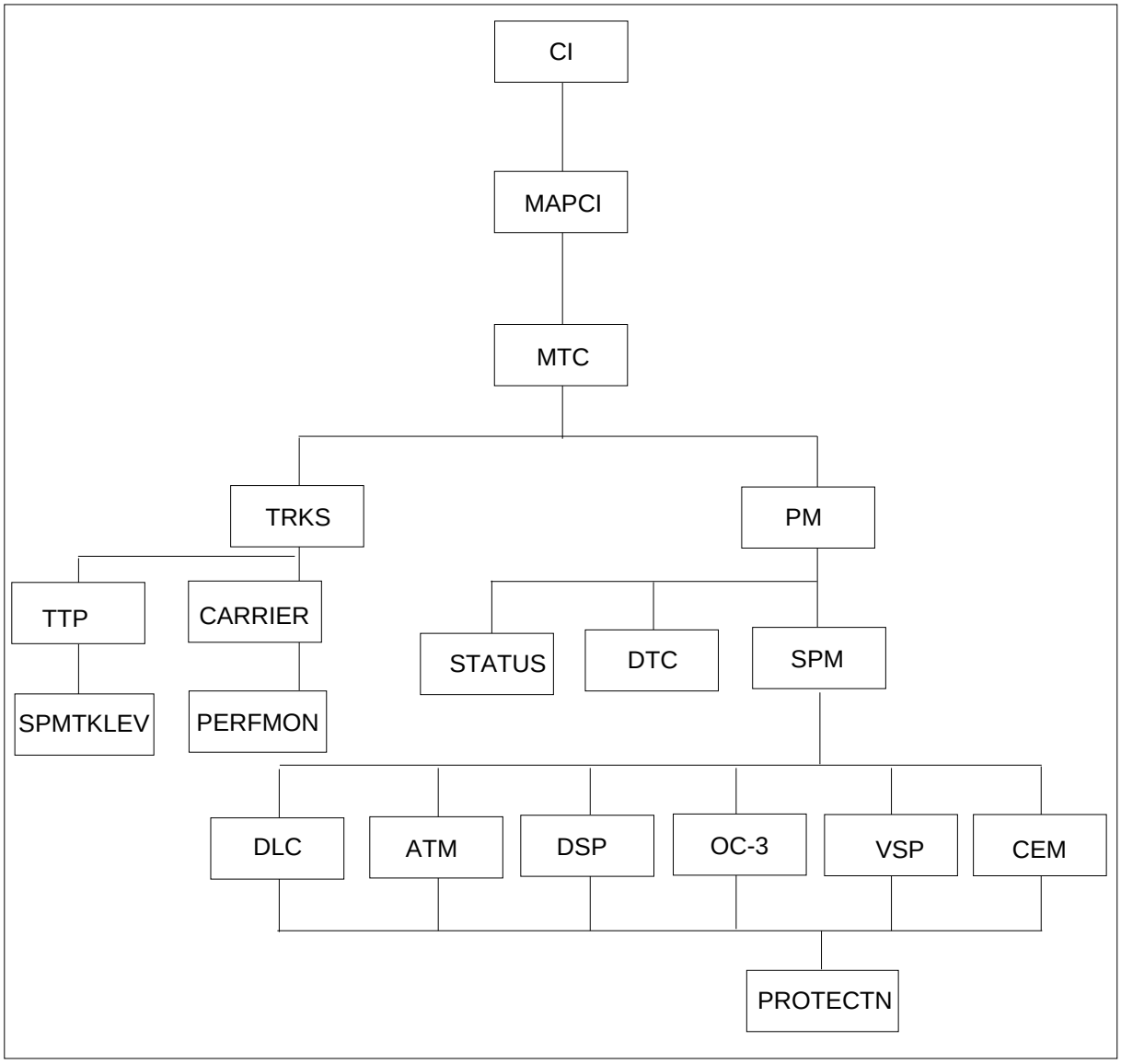
19 Introduction to SPM PRI commands

This section contains commands related to Primary Rate Interface (PRI) functionality on the Spectrum Peripheral Module.

The Spectrum Peripheral Module (SPM) user interface is accessed through the MAPCI screens. MAP screens and commands help operating company personnel to operate and maintain the SPM at the node level, as well as to maintain the modules (circuit packs) within the SPM. The following paragraphs outline the MAP screen characteristics and the details of MAP layout.

MAP hierarchy

The following block diagram illustrates the different levels of the MAP terminal for SPM.



Accessing the SPM level

Note: Use the following screens and values as examples only. While performing these procedures, the screens you receive may contain different values.

1. At the CI level, enter the following:

   >MAPCI

   The MAPCI screen displays.

2. Enter the following:

   >2 (or Mtc)

   The MTC screen displays.

3. At the MTC screen, enter the following:

   >13 (or PM)

   The PM screen displays.

4. At the PM screen, enter the following:

   >2 SPM #

The SPM screen displays.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   SysB   1IOCOS  5CdPr   2SysB  1   Rs           1 CC   1Crit
   M        M      M       *C*     *C*   *C*              *C*    *C*



SPM                                 SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                PM             2       0       4       0      10       0
 2 Post_               SPM            0       0       3       0       1       0
 3 ListSet
 4 ListRes          SPM    1  OffL  Class: DMSCP
 5 Trnsl
 6                  Shlf0 SL A Stat  Shlf0 SL  A Stat Shlf1 SL A Stat  Shlf1  SL A Stat
 7                  -----  1 - ----  CEM 1  8  I OffL  VSP 0 1 I OffL   DSP 1  8 I OffL
 8                  -----  2 - ----  OC3 0  9  I OffL  VSP 1 2 I OffL   --- -  9 - ----
 9                  -----  3 - ----  OC3 1 10  I OffL  --- - 3 - ----   --- - 10 - ----
10                  -----  4 - ----  --- - 11  - ----  --- - 4 - ----   --- - 11 - ----
11 Disp_            -----  5 - ----  --- - 12  - ----  --- - 5 - ----   --- - 12 - ----
12 Next             -----  6 - ----  --- - 13  - ----  --- - 6 - ----   --- - 13 - ----
13 Select_          CEM 0  7 A OffL  --- - 14  - ----  DSP 0 7 I OffL   --- - 14 - ----
14 QueryPM
15 ListAlm
16 PSLink
17 SPERFORM
18 Upgrade_

   14:12 >
```

SPM MAP characteristics

The following describes some of the specific characteristics of the SPM MAP user interface.

- When a MAP level command is invoked with “nowait" option, the terminal frees up after all command parameters are parsed and any prompts and/or warnings have been displayed. This allows subsequent commands to be entered while the first command is still executing.
- As each command is entered, a request for maintenance is sent to the SPM maintenance system. All command responses, including confirmation, progress marks, and command results are returned to the SPM user interface as messages. In this way, SPM user interface (although not necessarily SPM maintenance) supports the parallel processing of commands.
- Because of the potential for parallel command processing, there is a possibility that command responses could be received out of sequence or intermixed. Although this cannot be prevented, command responses should be particularly explicit to lessen the chance of confusion. Therefore, all SPM MAP responses have been labelled to identify the node and command to which they refer.
- The bulk of SPM maintenance intelligence resides in the SPM node. This decentralization of remote node maintenance reduces the maintenance load on the DMS-Core, which is the central processing node in the DMS-SuperNode. Maintenance for most SPM MAP commands is executed in the SPM itself.

Menu commands

Menu commands are those commands listed on the MAP display at each level. Access menu commands by typing the command itself or the number to the left of the command.

Non-menu commands

Non-menu commands (sometimes called hidden commands) are commands not displayed on the MAP display. Although they are not listed in the menu command display area, these commands are available from the current level.

Non-menu commands can include both of the following:

- “global" commands—available from any level (also called CI commands because they are available from the CI level)
- level-specific commands—available only from the current menu level (directory)

  — LISTST

  To find out the commands (both menu and non-menu) you can access at the current level, enter at the MAP display:

  ```
  >LISTST
  ```

  After you enter the previous command, the MAP lists all commands available at the current level. This list will include commands that perform tasks, commands that access other levels (directories), commands that appear on the menu, and commands that do not appear on the menu.

  — PRINT

  To list all the commands available within a directory, enter “PRINT", a space, and the name of the command directory, as shown by the following:

  ```
  >PRINT directory
  ```

  The MAP displays a list of all commands available in the directory you specified.

  — HELP

  Some directories have a HELP command available. Enter this command at the prompt, as shown in the following example, in the directory in which you want help. The MAP displays helpful information about the directory.

  ```
  >HELP
  ```

Command-specific information

If you want to know information about a specific command (such as whether it accesses another directory or what task the command performs), enter “Q", a space, and the command, as shown by the following:

```
>Q  command
```

Moving between command levels

At the MAP, you can move between the levels or directories with the following commands.

If you wish to go to the next command level, type the command directory at the prompt.

- To move from the CI level to the MAPCI level, type

  >MAPCI

- To move to the previous level, enter

  >QUIT

- To move directly to the CI level, enter

  >QUIT ALL

Commands parameters

Commands that perform a task often require one or more parameters. Parameters indicate the limits within which the command should perform. When you enter a command and its parameters, separate each parameter with a blank space.

The results of some commands are altered by the absence or presence of individual or groups of optional parameters. These cases are fully described in this manual.

Required parameters

Required parameters are necessary for the command to function properly. The MAPCI continues to prompt you for required parameters until you enter them correctly.

Optional parameters

Optional parameters are not required for the command to work. The MAPCI does not prompt you for optional parameters unless they are optional as a group and you have entered at least one optional parameter.

20 SPMDLCDIR directory

This chapter describes the syntax, purpose, and semantics of the SPMDLCDIR (SPM data link controller directory) commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMDLCDIR commands are as follows:

- Bsy
- ListAlm
- ListSet
- LoadMod
- Next
- Offl
- Prot
- QueryMod
- RTS
- Select
- Tst
- SPERFORM subdirectory
  - SPMACT subdirectory
    - Start
    - Stop
    - STRTLOG
    - STOPLOG
  - SPUSAGE subdirectory
    - Start
    - Stop
    - STRTLOG
    - STOPLOG

To access the directory

To access directory SPMDLCDIR, enter the following:

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT DLC <unit_no>
```

or

```
>MAPCI;MTC;PM;POST SPM <node_no>;SELECT DLC all
```

This is an example of entering the command:

```
>MAPCI;MTC;PM;POST SPM 0; SELECT DLC 0
```

or

```
>MAPCI;MTC;PM;POST SPM all;SELECT DLC all
```

To return to CI

```
>QUIT ALL
```

DLC screen

The following figure shows the DLC screen.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   SysB   1IOCOS  5CdPr   2SysB  1   Rs           1 CC   1Crit
   M        M      M       *C*     *C*   *C*              *C*    *C*



SPM                                    SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                      0       2       7       0      11       0
 2               SPM                     0       2       2       0       2       0
 3 ListSet         DLC                   0       0       0       0       0       0
 4             SPM    3  DLC
 5             Loc:                                          Prot Grp:
 6 Tst         Default Load:                                 Prot Role:
 7 Bsy
 8 RTS
 9 OffL
10 LoadMod
11
12 Next
13 Select_
14 QueryPM
15 ListAlm
16 Prot
17 SPERFORM
18

   14:12 >
```

Bsy

Purpose

The Bsy command changes the state of a selected circuit pack (CPK) to out-of-service or manual busy (ManB). This command is used to change the state of a CPK resource module (RM) to ManB from an offline (OffL) state or from an in-service (INSV) state.

DANGER

Possible service interruption

Changing from INSV to ManB may have an impact on service.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Bsy: Busy the selected CPK(s).

Parms: [<ALL>{ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 20-1

Parameter	Value	Description
All	ALL	All the selected CPKs
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following responses indicate the requests to manually busy both CPKs was submitted and successfully completed.

```
SPM 0 DLC 0 Busy: Request has been submitted.

SPM 0 DLC 0 Busy: Command completed.

SPM 0 DLC 1 Busy: Request has been submitted.

SPM 0 DLC 1 Busy: Command completed.
```

Examples

The following are examples of this command.

```
>Bsy

>Bsy all

>Bsy Nowait
```

ListAlm for SuperNode

Purpose

The ListAlm command for SuperNode displays the list of alarms associated with the selected module (circuit pack) in the SPM. If no parameter is specified, the entire list of alarms associated with the selected module is displayed. However, if an alarm number is specified as parameter to this command, details of the specified alarm display.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
ListAlm: Display alarms for the posted entity.

All alarms can be listed by severity by entering the command
without parms or by a single severity using parameters 1-4. The
non-reportable alarms can be included in either case.

This command provides the followingoptions:

1. CR : List all Critical alrms.

2. MJ : List all Major alarms

3. MN : List all Minor alarms

4. NA : List all No-Alarm alarms.

5. NRPT: Include non-reportable alarms in output.

Parms:  [<Option>       {CR [<Action> {NRPT}],
                         MJ [<Action> {NRPT}],
                         MN [<Action> {NRPT}],
                         NA [<Action> {NRPT}],
                         NRPT}]
```

Parameters

The parameters are described in the following table.

Table 20-2

Parameter	Value	Description
AlarmNo	0-?	Alarm number
Option	CR	Critical alarm
	MJ	Major alarm
	MN	Minor alarm
	NA	No-Alarm alarm
	NRPT	Non-reportable alarm

MAP responses

The following is a response to this command.

```
ListAlm: SPM 0  DLC 0

SEVERITY    ALARM       ACTION

-----------------------------

Critical    None

Major       MANBNA          RPT

Minor       None

No_Alarm    None
```

Example

None

ListSet

Purpose

The ListSet command lists the contents of the Post set.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
List the contents of the post set
```

Parameters

None

MAP responses

None

LoadMod

Purpose

The LoadMod command for SuperNode loads the selected module with the specified load.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
LoadMod: Load the circuit pack.

Parms: [<File Name> STRING]

       [<InSvld> {INSVLD}]

       [<Mate> {MATE <Mate Unit> {0 TO 27}}]

       [<All> {ALL}]

       [<Options>    {NOWAIT,

                      NOREPLY}]
```

Parameters

The following table describes the parameters.

Table 20-3

Parameter	Value	Description
LoadName	String up to 32 characters	
Options	NOWAIT	Return control to CI prompt
	NOREPLY	No Yes/No prompting

MAP response

The following are responses to this command.

Table 20-4

Response	Explanation and action
`SPM 0 DLC 0 Load: Request has been submitted.`	Request was submitted.

Examples

The following are examples of this command.

```
>LoadMod
```

```
>LoadMod <filename>
```

Next

Purpose

The Next command goes to the next of the selected modules.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Next:  Step to next CPK in post set or to

       first CPK of next rm_type in post set.

Parms: [<CPK TYPE> {CPKTYPE}]
```

Parameters

None

MAP response

The following is a response to this command.

```
Display the next circuitpack screen.

Next
```

Example

The following is an example of this command.

```
>Next
```

OffL

Purpose

The OffL command changes the state of a selected module to offline (OffL).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
OffL: OffLine both CPKs.

Parms: [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

The parameters are described in the following table.

Table 20-5

Parameter	Value	Description
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 DLC 0 Offline: Request has been submitted.

SPM 0 DLC 1 Offline: Request has been submitted.

SPM 0 DLC 0 Offline: Command completed.
```

```
SPM 0 DLC 1 Offline: Command completed.
```

Example

The following is an example of this command.

```
>Offl
```

Prot

Purpose

The Prot command brings up the protection screen for the module from whose screen the Prot command is issued.

Refer to Chapter , “SPMPROTDIR directory," for more information about the Protection screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Prot: Enter the Protection level MAP
```

MAP response

When the command is executed, the Protection screen displays.

Example

The following is an example of this command.

```
>Prot
```

QueryMod

Purpose

The QueryMod command queries a specified module (circuit pack) in the SPM. The QueryMod command displays only the information for the data link controller (DLC) RM in the post set, even when the user enters the SELECT DLC ALL command.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
QueryMod: Query misc info about the CPK.
```

MAP responses

The following are responses to this command.

```
DLC 0 InSv Act   Loc: Row D FrPos 36 ShPos 43 ShId 0 Slot 5

Default Load: DLC0014           Actual Load: DLC0014
```

Example

The following is an example of this command.

```
>QueryMod
```

Quit

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 20-6

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

RTS

Purpose

The RTS command changes the state of a selected circuit pack (CPK) to in-service (INSV) from manual busy (ManB).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS: Return the selected CPK(s) to service.

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 20-7

Parameter	Value	Description
All	ALL	All the selected CPKs
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 DLC 0 RTS: Request has been submitted.

SPM 0 DLC 0 RTS: Command completed.

SPM 0 DLC 1 RTS: Request has been submitted.

SPM 0 DLC 1 RTS: Command completed.
```

Examples

The following are examples of this command.

```
>RTS

>RTS all

>RTS Nowait
```

Select

Purpose

The Select command selects a specified module (circuit pack) in a the SPM. The screen for the selected module is displayed. This command is analogous to the Post command. The Post command can be executed from the PM level as well as from one of the posted PM's screen. Similarly, the Select command can be executed from the SPM screen as well as from one of the selected modules (circuit packs such as CEM, DSP, OC3, and so on).

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SELECT: Select specified CPKs for maintenance

Parms:  [<All CPKs> {AllCPKs}]

         [<All> {All}]

         {<UNIT? ... {0 to 27}]

         [<CPK Type>...   {CEM [<All> {All}]

                               [<UNIT>... {0 TO 1}],

                          OC3 [<All> {All}]

                               [<UNIT>... {0 TO 1}],

                          DSP [<All> {All}]

                               [<UNIT>... {0 TO 27}],

                          VSP [<All> {All}]

                               [<UNIT>... {0 TO 27}]}]
```

Parameters

Parameters are described in the following table.

Table 20-8

Parameter	Value	Description
CPK Type	CEM	Common equipment module
	OC3	Optical carrier-3
	DSP	Digital signal processor
	VSP	Voice signal processor
	DLC	Data Link Controller
Unit	0-1	CEM
Unit	0-1	OC-3
Unit	0-27	DSP
Unit	0-27	VSP
Unit	0-27	DLC

MAP responses

The following are responses to this command.

Table 20-9

Response	Explanation and action
`The CEM, OC3, DSP, or VSP screen displays in response to the command.`	Depending on the parameters to the Select command, one or more modules are selected, and the first one in the set is displayed. The user can find out what is in the select set by way of the command listset. The next command is used to display the next one in the set. If more than one type of CPK are selected (for example, select DSP, all OC3 all), the select set is created in the order of CEM, OC3, DSP, and VSP even if DSP is specified before OC3.
`EITHER incorrect optional parameter(s) OR too many parameters.`	This response indicates that the Select command is issued with invalid parameters. For example, select kjhsf, select cem 2, select dsp 99, and so on.
`Failed to create Post set`	

Examples

The following are examples of this command.

```
>Select CEM 0

>Select VSP 9

>Select DSP all

>Select allcpks

>Select CEM all OC3 0 DSP 0
```

Tst

Purpose

The Tst command tests the selected module(s). This command invokes the diagnostic tests on the circuit pack (CPK). The <all> option applies to all the selected CPKs. If CPKs are selected using the command *>select DLC all*, then *>Tst all* will run the tests on both CPKs. If the selection is done by *>select DLC 0*, then *>Tst all* would only apply to CPK 0. This is essentially the same as executing the Tst command without any parameter. If the Tst command is executed without any parameter, tests would run on the CPK that currently displays on the screen.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Tst: Test the selected CPK(s).

Parms: [<ALL> {ALL}]

       [<Prompt> {NOPROMPT}]

       [<Options> {NOWAIT,

                   NOREPLY}]
```

Parameters

Parameters are described in the following table.

Table 20-10 (Sheet 1 of 2)

Parameter	Value	Explanation and action
All	ALL	All the selected CPKs
Prompt	NOPROMPT	Suppress the yes/no prompts

Table 20-10 (Sheet 2 of 2)

Parameter	Value	Explanation and action
Options	NOWAIT	Cursor returns without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

Table 20-11

Response	Explanation and action
`Command rejected. The CPK is offline.`	The tests cannot be performed when the state of the CPK is offline.
`SPM 1 DLC 0 Test: Request has been submitted.` `SPM 1 DLC 0 Test: Command Completed.`	The test request was submitted and the command completed successfully.

`This operation will be executed on 2 DLCs`
`Please confirm (“YES", “Y", “NO", or “N"):`
`y`
 	
`SPM 1 DLC 0 Test: Request has been submitted.`
`SPM 1 DLC 0 Test: Command Completed.`
`SPM 1 DLC 1 Test: Request has been submitted.`
`SPM 1 DLC 1 Test: Command Completed.`
	The *tst all* command was executed after selecting both DLCs (select DLC all). The test requests were submitted for both DLCs, and the command completed successfully.

Examples

The following are examples of this command.

```
>Tst

>Tst all

>Tst Nowait
```

SPERFORM

The SPERFORM (SPM performance measurement) is a subdirectory of the Spectrum Peripheral Module (SPM). The SPERFORM subdirectory is accessed from the SPMDIR directory.

The SPERFORM subdirectory contains the following two subdirectories:

- SPMACT (SPM module activity)
- SPUSAGE (SPM USAGE)

The SPERFORM tool is a MAPCI-based tool that serves as an umbrella for several subtools. These tools provide statistical analysis on the SPM peripheral.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM
```

or

```
>MAPCI;MTC;PM;Post SPM all;SPERFORM
```

To return to CI

```
>QUIT
```

SPERFORM screen

The following illustrates the SPERFORM screen.

```
   CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPERFORM                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM             1       0       8       0      10       0
 2 SPMAct                  SPM            0       0       2       0       3       0
 3 SPUSAGE
 4                    SPM    3  ISTb   Loc: Site HOST Floor   5 Row E  FrPos  8
 5                    LOAD NAME: CEM0013
 6                    STATUS:             REASON:                 LOGS:     TIME:
 7
 8
 9
10
11
12
13
14
15
16
17
18

   14:12 >
```

Additional information

This command does not apply to the Successive Media Gateway 4000 Distributed Access (SMG4KDA) class.

The following response displays if the user posts class SMG4KDA.

Table 20-12

Response	Explanation and action
`This command is not applicable to a PM of class SMG4KDA.`	This command is not valid for the class SMG4KDA posted. No system or user action is required.

SPMACT

The SPMACT (SPM activity counting) tool is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPMACT commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPMACT tool provides users with information about the occupancy of the CEM processor, origination and termination counts, and real-time in the CEM processor.

SPMACT primarily measures the occupancy of the CEM processor in a given SPM. The occupancy of a processor is the percentage of time actually spent working over a specified time interval. SPMACT measures the occupancy of the SPM and separates the measurements into the following categories:

- System: Highest priority in the SPM system. It is overhead associated with system sanity checks and restart initialization
- Application: This class refers to call processing and resource management within the SPM system
- Background: This class refers to low priority maintenance, operational measurements (OM) scanning, and terminal I/O (Command Interpreter)

Origination and termination counts are collected by SPMACT. This information helps technicians understand the relationship between traffic volume and processor occupancy.

The number of MF and DTMF resources being used is also reported along with the number available and the peak number reported during the time the tool is in use.

The SPMACT tool also collects data on

- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks

- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

In addition to providing data on the MAPCI level, updated every minute, this tool generates SPRF670 logs that are a compilation of the tool's results from the time the user enables SPMACT until it is disabled. Each line of the log corresponds to a performance measurement taken every minute by the SPMACT tool. Logs SPRF670 and SPRF671 generate every 15 minutes from the time the tool starts and keep generating until the timer runs out, or the tool stops. These logs are found on the CM through LOGUTIL.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPMACT
```

To return to CI

```
>QUIT
```

SPMACT screen

The following illustrates the SPMACT screen, that the user accesses from the SPERFORM screen.

```
  CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPMACT                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM            0       0       8       0      11       0
 2 Strt                    SPM           0       0       2       0       3       0
 3 Strtlog
 4 Stoplog          SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop             LOAD NAME: CEM0013
 6                  STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                           SYSTEM  APPLICATION      BACKGROUND
 8                  CEM
 9                  CEMAVG
10                       ORIG        ORIGAVG        TERM           TERMAVG
11                                    MF    DTMF      ECAN         COT      TONE
12                  AVAIL
13                  INUSE
14                  HIGH
15
16
17
18

   14:12 >
```

Quit (SPMACT level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 20-13

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

The following is an example of this command.

```
>Quit
```

START (SPMACT level)

Purpose

The START command initializes the SPMACT tool (SPM activity counting tool) for a variable amount of time. SPMACT captures the following information:

- System Class Occupancy
- Average System Class Occupancy
- Application Occupancy
- Average Application Class Occupancy
- Background Class Occupancy
- Average Background Class Occupancy
- Originations
- Average Originations
- Terminations
- Average Terminations
- DTMF Availability, in-use, and (unusually) high watermarks
- MF Availability, in-use, and (unusually) high watermarks
- ECAN Availability, in-use, and (unusually) high watermarks
- COT Availability, in-use, and (unusually) high watermarks
- TONE Availability, in-use, and (unusually) high watermarks

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPMACT display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 20-14

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPMACT tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 20-15

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPMACT level)

Purpose

The STOP command discontinues the SPMACT tool (SPM activity counting tool). At that time, the SPM completes the SPMACT log, if previously enabled. The SPMACT log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPMACT tool (assuming the user did not use STOPLOG).

The SPMACT display is updated to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 20-16

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPMACT level)

Purpose

The STRTLOG command enables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to ON and begins the SPMACT log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 670 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 20-17

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPMACT level)

Purpose

The STOPLOG command disables the SPMACT (SPM activity counting tool) log system. When executed, the SPM updates the SPMACT LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool was running with logs ON, the STOPLOG command causes the CM to generate an SPRF 670 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 20-18

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

SPUSAGE

The SPUSAGE (SPM UniverSal Activity Gauging Element) is a subdirectory of commands that a user accesses from the SPERFORM directory for the Spectrum Peripheral Module (SPM). Included with each command description are some of the messages that can occur when the command is executed.

The SPUSAGE commands are as follows:

- START
- STOP
- STARTLOG
- STOPLOG
- QUIT

The SPUSAGE tool collects information on call processing events that occur in the SPM. These events may be messages, logs, or OMs. This information is useful for monitoring the activity on the SPM from a functional view and enables the user to detect any processing difficulties on the SPM.

The results can be used to pinpoint problems and find appropriate solutions. In addition to on-screen information, the SPUSAGE tool outputs SPRF 671 logs, which are a summary of the samples taken every minute during the time the tool is activated. The logs generate every 15 minutes until the timer runs out or the tool stops.

To access directory

```
>MAPCI;MTC;PM;Post SPM X;SPERFORM;SPUSAGE
```

To return to CI

```
>QUIT
```

SPUSAGE screen

The following illustrates the SPUSAGE screen that the user accesses from the SPERFORM screen.

```
  CM      MS    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   ManB  KT  B   2CSLk   1 SPM    .       .       1 CC    .       .
   M        M                   *C*                     *C*


SPUSAGE                                SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit                    PM            0       0       8       0      11       0
 2 Strt                    SPM           0       0       2       0       3       0
 3 Strtlog
 4 Stoplog          SPM    3  ISTb   Loc: Site HOST  Floor   5  Row E  FrPos  8
 5 Stop             LOAD NAME: CEM0013
 6                  STATUS: STOPPED  REASON:NOT_ STARTED  LOGS: OFF TIME  TIME: 00:00:00
 7                           SYSTEM  APPLICATION      BACKGROUND
 8
 9                  ABDN       EXIT       CONF       REL_CAL      TX_FAIL     DTMF_DNY
10
11                  MF_DNY     NET_PAR    NET_INTG   NET_FND      NET_NFND
12
13                  ECAN_DNY   COT_DNY    TONE_DNY
14
15
16
17
18

   14:12 >
```

Quit (SPUSAGE level)

Purpose

The Quit command exits the current or multiple CI increments.

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 20-19

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

START (SPUSAGE level)

Purpose

The START command starts the SPUSAGE (SPM universal activity gauging element) tool. This tool captures the following information:

- abandon message (ABDN)
- exit message (EXIT)
- confusion messages (CONF)
- release call messages (REL_CAL)
- parity error (NET_PAR)
- integrity lost (NET_INTG)
- transmit fail (TX_FAIL)
- network integrity found (NET_FND)
- network integrity not found (NET_NFND)
- ECAN allocation denied during a particular minute (ECAN_DNY)
- COT allocation denied during a particular minute (COT_DNY)
- TONE allocation denied during a particular minute (TONE_DNY)

The SPM displays information on these categories at one-minute intervals.

When the user executes this command, the SPM updates the SPUSAGE display to Start_pend, until the SPM responds with a start_acknowledgement message. At that time, the SPM promotes the tool to Running status and decrements the TIME display in 15-second intervals.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Start X
```

Parameters

The following table describes the parameters for this command.

Table 20-20

Parameter	Description
X	X is an integer between 1 and 1440 (24 hours), which represents the range of time that the SPUSAGE tool may operate. If no time parameter is given, the tool assumes a time of 15 minutes.

MAP responses

The following table lists MAP responses to this command.

Table 20-21

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOP (SPUSAGE level)

Purpose

The STOP command discontinues the SPUSAGE (SPM universal activity gauging element) tool. At that time, the SPM completes the SPUSAGE log, if previously enabled. The SPUSAGE log is a summary of the measurements taken by the tool, averaged over the time between when the user started the logs and stopped the SPUSAGE tool (assuming the user did not use STOPLOG).

The SPM updates the SPUSAGE display to show a tool status of STOPPED, with a reason of COMMAND.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

STOP

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 20-22

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STRTLOG (SPUSAGE level)

Purpose

The STRTLOG command enables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to ON and begins the SPUSAGE log. The SPM updates the log to reflect the information received every minute from the SPM while the tool is running. When the user enters the STOP or STOPLOG commands, the CM generates an SPRF 671 log.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STRTLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 20-23

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

STOPLOG (SPUSAGE level)

Purpose

The STOPLOG command disables the SPUSAGE log system. When executed, the SPM updates the SPUSAGE LOGS display to OFF. The SPM stops generating logs when the logs field is OFF. If the tool is running with logs ON, the STOPLOG command causes the CM to generate an SPRF 671 log. This log contains data ranging from when the user started the log until the user issued the STOPLOG command.

Command type

Menu

Command target

BRISC, ECORE

Command availability

Res

Command syntax

The following is an example of command syntax.

```
STOPLOG
```

Parameters

N/A

MAP responses

The following table lists MAP responses to this command.

Table 20-24

Response	Explanation
`Undefined Command xxx.`	User entered an invalid command, where “xxx" is the invalid command. User action: Re-enter a valid command
`No subtools available for posted RM`	This message indicates that no SPERFORM subtools exist for the RM type currently posted on the MAPCI. This occurs when the user posts and SPM, selects a particular RM, and attempts to enter SPERFORM from the RM level. The SPM displays this message when no SPERFORM subtools are bound in for that particular type of RM; SPERFORM access is denied.

Example

N/A

21 SPRICONV directory

This chapter describes the syntax and purpose of the SPRICONV directory of the maintenance and administration position (MAP) level, specifically the CONVERT and UNDO commands. The SPRICONV directory contains the commands to convert primary rate interface (PRI) trunks, both B and D-channels from an ISDN digital trunk controller (DTCI) to a Spectrum Peripheral Module (SPM). The SPRICONV directory commands convert PRI trunks in the NA100 and UCS DMS-250 markets.

Ensure the D-channel is posted and in the installation busy (INB) state before entering the command to convert the DTCI. Ensure all B-channels associated with the D-channel are also in the INB state to perform the conversion. Operating company personnel must return the D- and B-channels to service after the conversion is complete.

To access directory (NA100 market)

To access the SPRICONV MAP level, type one of the following commands from the command interpreter (CI) level of the MAP display.

```
>MAPCI;MTC;TRKS;TTP;PRADCH;LEVEL SPRICONV

>MAPCI;MTC;TRKS;TTP;PRADCH;LEVEL SPR

>MAPCI;MTC;TRKS;TTP;PRADCH;SPRICONV
```

Note: PRADCH and SPRICONV are hidden commands.

To access directory (UCS DMS-250 market)

To access the SPRICONV MAP level, type the following command from the CI level of the MAP display.

```
>MAPCI;MTC;TRKS;TTP;PRADCH;GSPRCONV
```

Note: GSPRCONV is a hidden command.

To return to CI

```
>QUIT ALL
```

PRADCH and SPRICONV screen displays

The following diagram is an example of the PRADCH MAP display for the NA100 market.

```
  CM      MS       IOD     Net      PM     CCS    Lns    Trks    Ext       APPL
 CM Flt   MSpair   NO AMA  1Shlv   1 EIU   5  RS   .     109CC   1Crit       .
   M       *C*      *C*     *C*     *C*    *C*            *C*    *C*
PRADCH
 0 Quit
 2 Post_
 3
 4 Equip_
 5 Connect_
 6
 7 Bsy
 8 RTS
 9 SWACT
10
11 HOLD
12 Next
13
14
15 CONT
16 LOOPBK
17
18 Level_
  TEAM1
Time   13:51 >
    POST          DELQ     BSYQ        DIG
    TTP  6-0001
    CKT   TYPE    PM NO.   COM LANG   STA S R DOT TE    RESULT


Level
Next par is: <LEVEL> {SPRICONV,
                      SPR}
Enter: <LEVEL>
```

The following diagram is an example of the PRADCH MAP display for the UCS DMS-250 market.

For use of the PRADCH sub-command 'connect' for Digital Test Access on an SPM, refer to the ISN04 Command Interface Change Pages (ISN-CICP-062002). Note that 'connect' is not SPM-specific.

```
  CM      MS       IOD     Net      PM     CCS    Lns    Trks    Ext       APPL
 CM Flt   MSpair   NO AMA  1Shlv   1 EIU   5  RS   .     109CC   1Crit       .
   M       *C*      *C*     *C*     *C*    *C*            *C*    *C*
PRADCH
 0 Quit                    POST          DELQ     BSYQ        DIG
 2 Post_                   TTP  6-0001
 3                         CKT   TYPE    PM NO.   COM LANG   STA S R DOT TE    RESULT
 4
 5
 6
 7 Bsy
 8 RTS
 9 SWACT
10                       PRADCH:
11 HOLD
12 Next
13
14
15 CONT
16 LOOPBK
17
18 Level_
  TEAM1
Time   13:51 >
```

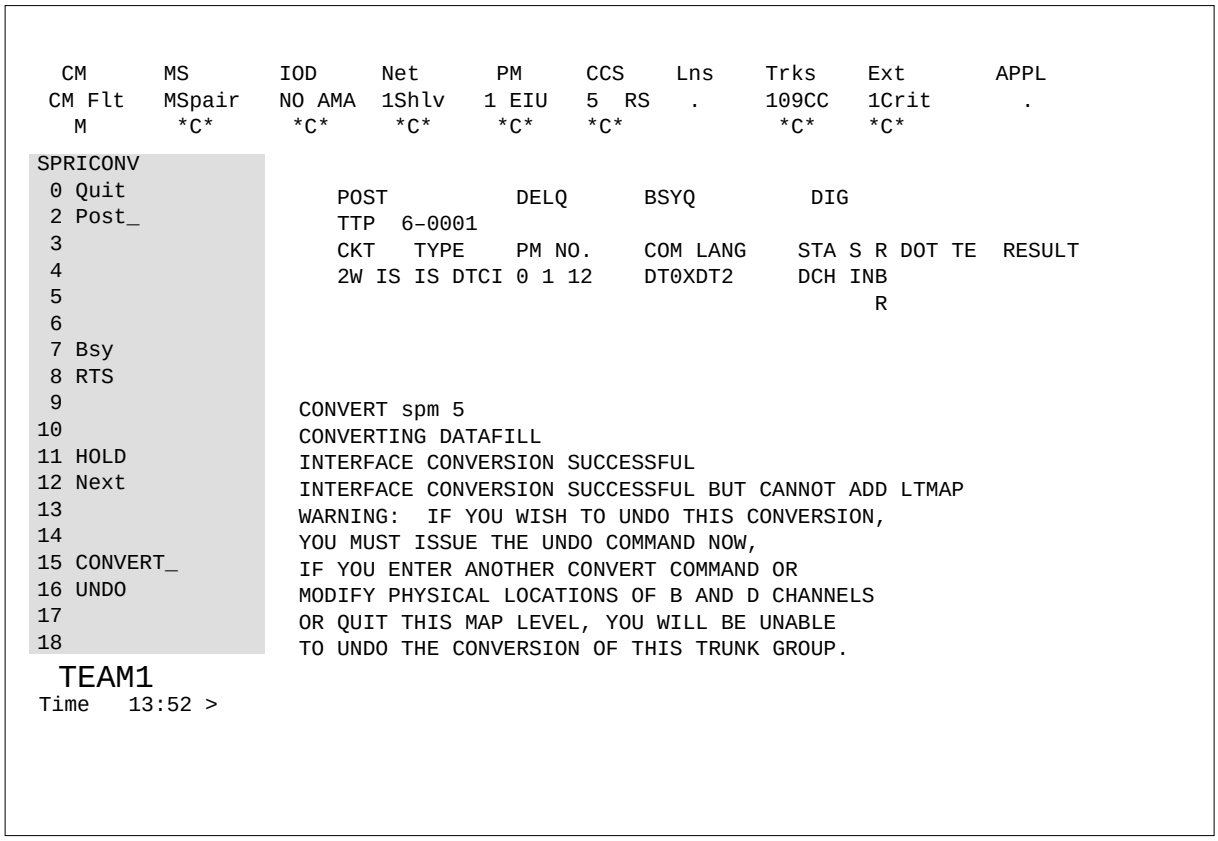
The following diagram is an example of the SPRICONV MAP display for the NA100 market.

```
  CM      MS       IOD     Net      PM     CCS    Lns    Trks    Ext       APPL
 CM Flt   MSpair   NO AMA  1Shlv   1 EIU   5  RS   .     109CC   1Crit       .
   M       *C*      *C*     *C*     *C*    *C*            *C*    *C*
SPRICONV
 0 Quit                    POST          DELQ     BSYQ        DIG
 2 Post_                   TTP  6-0001
 3                         CKT   TYPE    PM NO.   COM LANG   STA S R DOT TE    RESULT
 4
 5
 6
 7 Bsy
 8 RTS
 9
10                       SPRICONV:
11 HOLD
12 Next
13
14
15 CONVERT-
16 UNDO
17
18
  TEAM1
Time   13:51 >
```

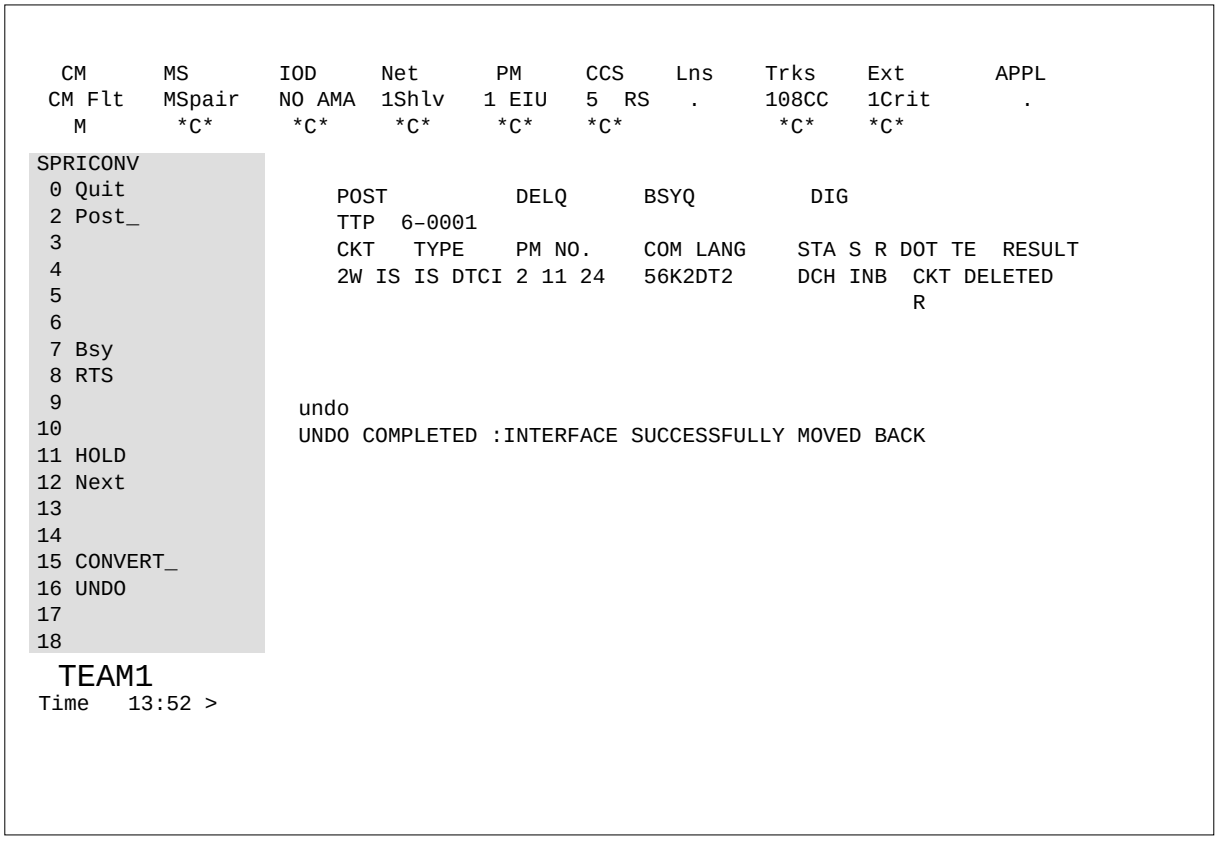
The following diagram is an example of the SPRICONV MAP display for the UCS DMS-250 market.

```
  CM      MS       IOD     Net      PM     CCS    Lns    Trks    Ext       APPL
 CM Flt   MSpair   NO AMA  1Shlv   1 EIU   5  RS   .     109CC   1Crit       .
   M       *C*      *C*     *C*     *C*    *C*            *C*    *C*
SPRICONV
 0 Quit                    POST          DELQ     BSYQ        DIG
 2 Post_                   TTP  6-0001
 3                         CKT   TYPE    PM NO.   COM LANG   STA S R DOT TE    RESULT
 4
 5
 6
 7 Bsy
 8 RTS
 9
10                       GSPRCONV:
11 HOLD
12 Next
13
14
15 CONVERT-
16 UNDO
17
18
  TEAM1
Time   13:51 >
```

The following diagram is an example of the SPRICONV MAP display for the NA100 and UCS DMS-250 markets. The diagram contains the results of the CONVERT command.



The following diagram is an example of the SPRICONV MAP display for the NA100 and UCS DMS-250 markets. The diagram contains the results of the UNDO command.


CM MS IOD Net PM CCS Lns Trks Ext APPL
CM Flt MSpair NO AMA 1Shlv 1 EIU 5 RS . 108CC 1Crit .
M *C* *C* *C* *C* *C* *C* *C* *C*
SPRICONV
0 Quit
2 Post_
3
4
5
6
7 Bsy
8 RTS
9
10
11 HOLD
12 Next
13
14
15 CONVERT_
16 UNDO
17
18
POST DELQ BSYQ DIG
TTP 6–0001
CKT TYPE PM NO. COM LANG STA S R DOT TE RESULT
2W IS IS DTCI 2 11 24 56K2DT2 DCH INB CKT DELETED
R
undo
UNDO COMPLETED :INTERFACE SUCCESSFULLY MOVED BACK
TEAM1
Time 13:52 >

MAP responses

The following table contains possible MAP responses at the SPRICONV MAP level.

Table 21-1 (Sheet 1 of 2)

Response	Explanation
`Level seized by user <user ID>. Only one user allowed at a time.`	This response indicates the user tried to access SPRICONV MAP level currently in use.
`Failed to enter SPRICONV level--Given CLLI doesn't exist in table TRKSGRP.`	This response indicates the user entered SPRICONV MAP level and tried to post a non-existent CLLI.
`Failed to enter SPRICONV level--corrupted TRKSGRP.`	This response indicates corrupted customer data.
`ERROR: unable to allocate SPRICONV directory`	This response indicates the module is not in the switch.

Table 21-1 (Sheet 2 of 2)

Response	Explanation
`ERROR: failed to allocate SPRICONV event.`	This response indicates the module is not in the switch.
`ERROR: store or semaphore allocation error. Command CONVERT disabled.`	This response indicates memory problems on the switch.

Bsy

Purpose

The Bsy command busies the circuit in the control position.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
BSY-- BUSY OUT THE CIRCUIT

Parms: [<STATE>  {INB,

                  MB,

                  SB,

                  ALL,

                  A}]

       [<ALL> {ALL,

               A}]
```

Parameters

Parameters are described in the following table.

Table 21-2

Parameter	Value	Description
All	ALL	All the selected OC3s in the selected SPM

MAP responses

The following responses indicate the requests to manually busy both CPKs was submitted and successfully completed.

```
SPM 0 OC3 0 Busy: Request has been submitted.
```

```
SPM 0 OC3 0 Busy: Command completed.

SPM 0 OC3 1 Busy: Request has been submitted.

SPM 0 OC3 1 Busy: Command completed.
```

Examples

The following are examples of this command.

```
>Bsy

>Bsy all
```

Convert

Purpose

The CONVERT command changes the posted D-channel and its corresponding B-channels of the peripheral module (PM) from an ISDN digital trunk controller (DTCI) to a Spectrum Peripheral Module (SPM).

Command type

Menu

Command target

BRISC

Command availability

RES

Command syntax

The following is an example of command syntax.

```
>CONVERT pm pm_no
```

Parameters

The next table describes the parameters.

Table 21-3

Parameter	Value	Description
pm	SPM	This parameter provides the PM name, in this case, the Spectrum Peripheral Module.
pm_no	0 to 63	This parameter describes the PM number of the SPM.

MAP responses

The following table contains possible MAP responses to the CONVERT command.

Table 21-4 (Sheet 1 of 4)

Response	Explanation

`Converting datafill.`
`Interface conversion successful`
`Warning: If you wish to undo this conversion, you must issue the undo command now. If you enter another convert command or modify physical locations of B and D channels or quit this MAP level, you will be unable to undo the conversion of this trunk group.`
	This response explains the execution of the CONVERT command.

`Command disabled: memory or resources problem.`	This response indicates there are memory or resource problems.
`No action taken: no trunk posted or trunk deleted.`	This response indicates the required clli is not posted, or the required CLLI is deleted from table CLLI.

`Converting datafill.`
`Cannot delete a trunk presently in use.`
`Unable to delete LTMAP interface, conversion failed.`
	This response indicates the trunks corresponding to the PM are not in an INB state.

`Posted channel must be a D-channel.`	This response indicates the user posted a B-channel instead of a D-channel.

`Invalid parameter 2.`
`Parameter is PM NO.`
`No action taken.`
	This response indicates the user entered an incomplete CONVERT command.

`Peripheral does not exist.` `Interface conversion not possible.`	This response indicates the user tried converting to a non-existing peripheral.
`SPM is not equipped.` `Interface conversion not possible.`	This response indicates the user tried converting to an unequipped peripheral.
Note: "x x" and "x x x" appear in this table for syntax purposes only.	

Table 21-4 (Sheet 2 of 4)

Response	Explanation
Converting datafill. D-channel must be INB. Unable to delete LTMAP. Interface conversion failed.	This response indicates the PM is not in an INB state.
Not enough SPM carriers available. Interface conversion not possible.	This response indicates the user tried to convert to a PM having no free carriers or having less than the number of free carriers required.
Hyper PRI interfaces are not supported.Interface conversion not possible.	This response indicates the user tried converting a HYPER PRI interface.
Converting datafill. LTID not mapped in table LTMAP. Continuing operation. Trunk must be INB. Failed to delete TRKMEM DTCI x x x. Restoring datafill. Interface conversion failed.	This response indicates the trunks corresponding to the PM are not in an INB state. It also indicates the logical terminal identifier (LTID) is not mapped in table LTMAP.
Converting datafill. LTID not mapped in table LTMAP. Continuing operation. Warning: If you wish to undo this conversion, you must issue the undo command now. If you enter another convert command or modify physical locations of B and D channels or quit this MAP level, you will be unable to undo the conversion of this trunk group.	This response is received as a result of incorrect LTID mapping.
Converting datafill. Found member in table HNPACONT. Failed to delete TRKMEM DTCI x x x. Restoring datafill.Interface conversion failed.	This response indicates the CONVERT command failed to delete TRKMEM during the conversion process.

Note: “x x" and “x x x" appear in this table for syntax purposes only.

Table 21-4 (Sheet 3 of 4)

Response	Explanation
Restoring datafill. Terminal already bound to another trunk. Restore data: failed to add TRKMEM DTCI x x x	This response indicates the restore process failed during conversion and that TRKMEM addition also failed.
Converting datafill. Terminal already bound to another trunk. Failed to add TRKMEM SPM x x x. Do you wish to continue? Please confirm ("YES", Y", "NO",or "N") :Y Interface conversion successful. Warning: If you wish to undo this conversion, you must issue the undo command now. If you enter another convert command or modify physical locations of B and D channels or quit this MAP level, you will be unable to undo the conversion of this trunk group.	This response indicates the CONVERT command failed to add TRKMEM during the conversion process. It also indicates the user wants to continue with the conversion process.
Converting datafill. Terminal already bound to another trunk. Failed to add TRKMEM SPM x x x. Do you wish to continue? Please confirm ("YES", Y", "NO",or "N") :N Restoring datafill.	This response indicates the CONVERT command failed to add TRKMEM during the conversion process. It also indicates the user wants to discontinue with the conversion process.
Restore data: Failed to delete TRKMEM SPM x x x. Manual intervention is required.	This response indicates the trunks added during the restore segment of the coversion process cannot be deleted.
Restore data. Failed to restore TRKSGRP data. Manual intervention is required.	This response indicates the change of TRKSGRP failed during the restore segment of the conversion process.
Note: "x x" and "x x x" appear in this table for syntax purposes only.	

Table 21-4 (Sheet 4 of 4)

Response	Explanation
Converting datafill. PRI PSAP name associated with this LTID is referenced by other tables. Use TABREF E911PSAP to determine other references. Unable to delete LTMAP. Interface conversion failed.	This response indicates an LTMAP deletion failure occurred during the conversion process.
Converting datafill. Unable to add IID for SPM x x. Restoring datafill.Interface conversion failed.	This response indicates an IID addition failure occurred during the conversion process.
Converting datafill. Failed to change TRKSGRP data. Restoring datafill.Interface conversion failed.	This response indicates a TRKSGRP failure occurred during the conversion process.
Converting datafill. Interface conversion successful but cannot add LTMAP. Warning: If you wish to undo this conversion, you must issue the undo command now. If you enter another convert command or modify physical locations of B and D channels or quit this MAP level, you will be unable to undo the conversion of this trunk group.	This response indicates an LTMAP addition failure occurred during the conversion process.
Converting datafill. Terminal already bound to another trunk. Failed to add TRKMEM SPM x x x. Do you wish to continue? Please confirm ("YES", Y", "NO",or "N") :N Restore data: failed to delete TRKMEM SPM x x x.	This response indicates the restore segment of the conversion process failed, and the CONVERT command failed to delete TRKMEM from the SPM.
Restore data: failed to restore TRKSGRP data. Manual intervention is required.	This response indicates the restore segment of the conversion process failed. It also indicates the command failed to change the D-channel to the XPM.

Note: “x x" and “x x x" appear in this table for syntax purposes only.

Examples

The following are examples of the CONVERT command:

```
>CONVERT SPM 0

>CONV SPM 0
```

Hold

Purpose

The Hold command holds the posted trunk.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
HOLD--HOLD THE POSTED TRK
```

Parameters

None

MAP responses

None

Example

None

Next

Purpose

The Next command places the next circuit (next in the posted set of circuits) in the control position.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
NEXT--GET THE CKT INDICATED

Parms: [<SAVE/HOLD> {S,

                     1,

                     2,

                     3,

                     P}]

       [<SAVE/EX> {S,

                   E}]
```

Parameters

None

MAP responses

None

Example

None

Post

Purpose

The Post command posts one or more circuits for maintenance.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
POST--POST A NEW SET

Parms: [<SET TYPE> { T [<CLLI1> STRING]
                       [<CNRI1> {0 TO 9999}]
                       [<....> STRING],
                     G <CLLI> STRING
                       [<CLNR> {0 TO 9999}]
                       [<TO> {TO}]
                       <CLNR> {0 TO 9999}
                     TM <TMNAME> STRING
                       <TMNR> {0 TO 9999}
                       [<NR_ON_TM> {0 TO 29}]
                       [<TO> {TO}]
                       <NR_ON_TM> {0 TO 29}
                     P <PMNAME> STRING
                       <PMNR> {0 TO 9999}
                       [<PNO> {0 TO 29}]
```

```
 [<TO> {TO}]
 <PNO> {0 TO 29}
D <DEQNM>   {DCM,
             LTC,
             DTC,
             DCA,
             DCT,
             IDTC,
             ILTC,
             RCC,
             PDTC,
             DTC,
             TLTC,
             TRCC,
             RCCI,
             DTCI,
             ICP,
             TMS,
             RCC2,
             SRCC,
             HSI2,
             RCO2,
             SPM,
             PLGC}
 <DEQ_NO> {0 TO 511}
 [<CARR_NO> {0 TO 181}]
 [<TS_NO> {1 TO 31}]
```

```
 [<TO> {TO}]
 <TS_NO> {1 TO 31},
E <DESNM> {DES}
 <DESNO> {0 TO 511}
 [<DESSIDE> {R,
             S,
             B}]
 [<DESCKT> {0 TO 63}]
 [<TO> {TO}]
 <DESCKT> {0 TO 63},
B <BSYQ> {A,
          C,
          F,
          B},
S [<STA_SET>   {NEQ,
                INB,
                MB,
                NMB,
                PMP,
                RMB,
                SB,
                CFL,
                LO,
                DEL,
                INI,
                CPB,
                CPD,
```

```
                RES,
                IDL,
                SZD}],
A <STATE>   {NEQ,
             MB,
             NMB,
             PMB,
             RMB,
             SB,
             CFL,
             LO,
             DEL,
             INI,
             CPB,
             CPD,
             RES,
             IDL,
             SZD}
 [<CLLI> STRING],
TB <CLLI> STRING
 <TYPE> {M  [<FORMAT> {HC [<LIST> {ALL}],
                MR [<LIST> {ALL}]
                ALL}]
            [<ITEM> {0 TO 9}],
         CP [<FORMAT1> {HC[<LIST>{ALL}],
               MR [<LIST>{ALL}],
               ALL}]
```

```
 [<ITEM> {0 TO 9}]},
 CPTERMERR,
 F <CARR_NAME> STRING
   [<TS_NO> {1 TO 31}]
   [<TO> {TO}]
   [<TS_NO> {1 TO 31}],
BC <CLLI> STRING
   <CKTN> {0 TO 9999},
   <CLLI> STRING
WB <CKTN> {0 TO 9999}}]
```

Parameters

None

MAP responses

None

Example

None

Quit

Purpose

The Quit command causes the system to leave the current level and return to the lower MAP level from which the command >LEVEL SPMTKCNV was issued.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
Parameter is: < nlevels | incrname | ALL >
```

Parameters

The following table describes the parameters.

Table 21-5

Parameter	Value	Description
nlevels	integer	The number of CI increments to exit (optional)
incrname	string	Specify the name of the CI increment down to which the CI increments are to be exited (optional)
All	string	Specify that all CI increments are to be exited (optional)

MAP responses

None

Example

None

RTS

Purpose

The RTS command returns to service the circuit in the control position.

Command type

Menu

Command target

SuperNode

Command availability

Res

Command syntax

The following is an example of command syntax.

```
RTS-- RETURN THE CIRCUIT TO SERVICE

PARMS: [<OPT> {ALL,
               RLS,
               RTS,
               A,
               R,
               C <TYPE> {M,
                         CP,
                         BOTH},
               IDL,
               RES,
               INI}]
       [opt2>] {ALL,
               RLS,
               RTS,
               A,
```

```
                    R,
                    C <TYPE> {M,
                              CP,
                              BOTH},
                    IDL,
                    RES,
                    INI}]
```

Parameters

Parameters are described in the following table.

Table 21-6

Parameter	Value	Description
All	ALL	All the selected CEMs
Prompt	NOPROMPT	Suppress the yes/no prompts
Options	NOWAIT	Cursor is returned without waiting for the command to complete
	NOREPLY	Suppress the replies to the command

MAP responses

The following are responses to this command.

```
SPM 0 OC3 0 RTS: Request has been submitted.

SPM 0 OC3 0 RTS: Command completed.

SPM 0 OC3 1 RTS: Request has been submitted.

SPM 0 OC3 1 RTS: Command completed.
```

Example

The following are examples of this command.

```
>RTS

>RTS all

>RTS nowait
```

Undo

Purpose

The UNDO command reverses the results of the CONVERT command. The UNDO commands has the following restrictions:

- All backup data is lost if a restart occurs
  - — while performing the conversion.
  - — between the latest conversion and the UNDO command.
  - — while performing the UNDO command.
- The UNDO command is not permitted after a computing module (CM) SWACT for last conversion.
- The UNDO command persists until returning to the SPRICONV MAP level.
- If provisioning changes are made on the converted DTCI, reversal of the latest conversion command is not possible.

Command type

Menu

Command target

BRISC

Command availability

RES

Command syntax

The following is an example of command syntax.

```
>UNDO
```

Parameters

None

MAP responses

The following table contains possible MAP responses to the UNDO command.

Table 21-7 (Sheet 1 of 4)

Response	Explanation
`UNDO completed: interface successfully moved back`	This response indicates the UNDO command is complete.
`Nothing to do.`	This response indicates that the PM requires conversion before entering the UNDO command.Exiting out of the SPRICONV MAP level and entering again.A CM restart or CM SWACT after the conversion.
`UNDO completed: interface successfully moved back.`	This response indicates that after a series of PM conversions, the UNDO command is successfully completed.
`SPM x x x member deleted on converted interface. UNDO not possible.` `Datafill has been changed on the interface after conversion.`	This response indicates that provisioning changes are made to the trunks that correspond to the new interface in the SPM.
`SPM x x x no longer belongs to the original interface. UNDO not possible.` `Datafill has been changed on the interface after conversion.`	This response indicates that provisioning changes are made in table TRKMEM.
`UNDO failed: failed to delete TRKMEM SPM x x x.` `Restoring post conversion datafill.`	This response indicates the UNDO command failed to delete TRKMEM from the SPM.
`Restore post conversion data: failed to add TRKMEM SPM x x x.` `Manual intervention is required.`	This command indicates the trunks added during the restore process cannot be deleted.

Note: "x x x" appear in this table for syntax purposes only.

Table 21-7 (Sheet 2 of 4)

Response	Explanation

`Terminal already bound to another trunk.`
`UNDO data: failed to add TRKMEM DTCI x x x`
`Do you wish to continue?`
`Please confirm ("YES", Y", "NO",or "N") :Y`
`UNDO completed: interface successfully moved back.`
	This response indicates the UNDO command failed to add table TRKMEM. It also indicates the user wants to continue the UNDO process.

`Terminal already bound to another trunk.`
`UNDO data: failed to add TRKMEM DTCI x x x`
`Do you wish to continue?`
`Please confirm ("YES", Y", "NO",or "N") :N`
`Restoring post conversion datafill`
	Failure found in table TRKMEM addition, user wants to stop the UNDO process.This response indicates the command failed to add table TRKMEM. It also indicates the user wants to continue the UNDO process.

`Restore data: failed to delete TRKMEM DTCI x x x.` `Manual intervention is required.`	This response indicates the restore process failed during table TRKMEM addition.
`Restore post conversion data: failed to restore TRKSGRP data.` `Manual intervention is required.`	This response indicates the restore process failed during table TRKSGRP change.
`LTID not mapped in table LTMAP.` `Continuing operation. UNDO completed: interface successfully moved back.`	This response indicates the LTMAP entry is not added during the conversion process.
`UNDO completed: interface successfully moved backed`	This response indicates the entry in table LTMAP is not added during the conversion process. The user manually adds the LTMAP entry after the conversion.

Note: "x x x" appear in this table for syntax purposes only.

Table 21-7 (Sheet 3 of 4)

Response	Explanation
LTID not mapped in table LTMAP. Continuing operation. UNDO completed: interface successfully moved back.	This response indicates the entry in table LTMAP is deleted.
UNDO failed: failed to change TRKSGRP data. Restoring post conversion datafill.	This response indicates that no PM is converted when provisioning changes are made to table TRKSGRP while performing the UNDO command.
Found member in HNPACONT table. UNDO failed: failed to delete TRKMEM data. Restoring post conversion datafill.	This response indicates the UNDO command was not successful and failed to delete the associated TRKMEM data.
LTID not mapped in table LTMAP. Continuing opertion. UNDO completed: interface successfully moved back.	This response indicates the entry in table LTMAP cannot be added during the conversion.
SPM x x xx has been added after conversion. UNDO not possible. Datafill has been changed on the interface after conversion.	This response indicates the datafill is changed in table TRKMEM for the SPM.
Primary D-channel location has been changed from SPM x x x. UNDO not possible. Datafill has been changed on the interface after conversion.	This response indicates the physical location of the primary D-channel is changed.

Note: "x x x" appear in this table for syntax purposes only.

Table 21-7 (Sheet 4 of 4)

Response	Explanation

`Backup D-channel location has been changed/deleted from SPM x x x.`
`UNDO not possible.`
`Datafill has been changed on the interface after conversion.`
	This response indicates the backup D-channel is changed or deleted.

`New backup D-channel is added at SPM x x x.`
`UNDO not possible.`
`Datfill has been changed on the interface after conversion.`
	This response indicates that new backup was added to D-channel on the converted PM.

Note: "x x x" appear in this table for syntax purposes only.

Examples

None

22 STM-1 commands

This chapter describes the syntax, purpose, and semantics of the STM-1 commands for the Spectrum peripheral module (SPM). Included with each command description are some of the messages that may occur when the command is executed.

The STM-1 commands are amended versions of existing commands at the CARRIER level, the SPMCEMDIR level and so on. The commands are grouped together in this chapter for convenience.

The changes to the commands allow for the display and maintenance of STM-1 carriers on the SPM.

Note: The information in this chapter applies to the MMP13 release only.

The STM-1 commands are as follows:

- CARRIER level
  - Bsy
  - Detail
  - Disp
  - ListAlm
  - Loop
  - OffL
  - Post
  - Rts
  - Tst
- CARRUTIL level
  - DumpHist
  - Help
  - ListHist
  - SetCarr

- SPMCEMDIR level
  - — Select
- SPMTKCNV level
  - — Convert
  - — CvCarr
  - — Display
  - — Swap

Other commands at the above levels can be used with STM-1 carriers, and have no changes to their command syntax or MAP screens. The relevant chapters of this manual for STM-1 commands are as follows:

- CARRIER level - Chapter 2
- CARRUTIL level - Chapter 3
- SPMCEMDIR level - Chapter 9
- SPMTKCNV level - Chapter 16

CARRIER level

This chapter describes the syntax, purpose, and semantics of the CARRIER commands for the Spectrum peripheral module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

To access the directory

To access the CARRIER directory, enter the following command:

```
>mapci;mtc;trks;carrier
```

To return to CI

```
>quit all
```

CARRIER screen

The following figure shows the layout of the CARRIER screen. The screen shows all the available commands at the CARRIER level.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  .       .      .       .       1 SPM    .       .      33 CC     .       .
                                   M                     *C*


CARRIER          CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
 0 Quit          TRUNKS    1    0   7     7     0    0     0     11    0     6
 2 Post_         REMOTE    1    0   5     0     0    0     0      4   32    29
 3               TIMING    1    0   2     0     0    0     0      2    0     0
 4               PROTLN    0    0   0     0     0    0     0      0    0     2
 5               HSCARR    1    0   0     0     0    0     0      0    0  1265
 6
 7
 8
 9
10
11 Disp_
12
13
14
15
16
17
18

 Operator
 Time  14:12
 >
```

A carrier can be in any one of the following states:

- unequipped (Uneq)
- offline (OffL)
- manual busy (ManB)
- system busy (SysB)
- C-side busy (CBsy)
- P-side busy (PBsy)
- in service (InSv)

A carrier on an SPM can be in only one of the following states:

- OffL
- ManB
- SysB
- CBsy
- Insv

POST level

The POST command allows the user to display carriers based on a condition or a peripheral type. A condition can be a class, a carrier type, a state, an alarm, or a limit type.

The carrier types for SPM are OC3 section (OC3S), STS3 line (STS3L), STS1 path (STS1P), DS3 path (DS3P), VT15 path (VT15P), DS1 path (DS1P), STM-1 regenerator (STM1R), STM-1 multiplier (STM1M), VC4 path (VC4P), VC12 path (VC12P), and E1 path (E1P). DS1P denotes an SPM DS1 subcarrier.

Because each SPM carrier can have a unique 38-character logical name, posting can be done by a logical name.

There are two formats for the SPM CARRIER POST screen, one for physical carriers (OC3S, STS3L, STM1R, and STM1M), and one for logical carriers (STS1P, VT15P, DS3P, DS1P, VC4P, VC12P, and E1P).

The following figure shows an example of the CARRIER screen at the POST level for a physical carrier.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  .       .      .       .       1 SPM    .       .      33 CC     .       .
                                   M                     *C*

POST                 CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
 0 Quit              TRUNKS    1    0   7     7     0    0     0     11    0     6
 2 Post_             REMOTE    1    0   5     0     0    0     0      4   32    29
 3                   TIMING    1    0   2     0     0    0     0      2    0     0
 4                   PROTLN    0    0   0     0     0    0     0      0    0     2
 5 Loop_             HSCARR    1    0   0     0     0    0     0      0    0  1265
 6 TST_              OC3S
 7 Bsy_              N   CLASS  SITE SPM OC3RM  OC3S STS3L CKT STATE TRA MA
 8 RTS               0   HSCARR  HOST   1    0     0     –   1 INSV  ..  ..
 9 OffL              1   HSCARR  HOST   1    1     1     –   2 INSV  ..  ..
10                   POSTED BY CONDITION :  STM1R
11 Disp_             CARRIER:
12 Next              POST:
13
14 Detail_
15 ListAlm_
16
17 Perfmon_
18

 Operator
 Time  14:12
 >
```

The following figure shows an example of the CARRIER screen at the POST level for a logical carrier.

```
   CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
    .       .      .       .       1 SPM    .       .      33 CC     .       .
                                     M                     *C*


POST
 0 Quit
 2 Post_
 3
 4
 5 Loop_
 6 TST_
 7 Bsy_
 8 RTS
 9 OffL
10
11 Disp_
12 Next
13
14 Detail_
15 ListAlm_
16
17 Perfmon_
18

 Operator
 Time  14:12
 >
CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
TRUNKS    1    0   7     7     0    0     0     11    0     6
REMOTE    1    0   5     0     0    0     0      4   32    29
TIMING    1    0   2     0     0    0     0      2    0     0
PROTLN    0    0   0     0     0    0     0      0    0     2
HSCARR    1    0   0     0     0    0     0      0    0  1265
VT15P
N   CLASS  SITE SPM STS1P  DS3P VT15P CKT STATE MA
0   HSCARR  HOST   0    2     0     1   9 INSV  ..
1   HSCARR  HOST   0    2     1     2  10 INSV  m.
POSTED BY CONDITION :  VC4P
CARRIER:
POST:
```

To execute the POST command

To execute the POST command, enter one of the following:

- the command name and a condition
- the command name, the string NAME, and the name of the desired SPM carrier
- the command name and a peripheral type

This is an example of the command:

```
>mapci;mtc;trks;carrier;post spm 0
```

Commands at the POST level

The CARRIER commands at the POST level are as follows:

- Bsy
- Detail
- Disp
- ListAlm
- Loop

- Next
- OffL
- PerfMon
- Post
- Quit
- Rts
- Tst

Note: When a user executes a Bsy command on an STS3cp carrier, the following warning and prompt displays on the MAP screen:

```
All trunks not busy

Do you want to busy this carrier ?

Please confirm (“YES", “Y", “NO", or “N"):
```

DISPLAY level

The following figure shows an example of the CARRIER screen at the DISPLAY level.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  .     01SBCL  AMA  B   1CSLk   1RCC      .       .      30 CC     .       .
                *C*             *C*                     *C*

DISPLAY
 0 Quit
 2 Post_
 3
 4
 5
 6
 7
 8
 9
10
11 Disp_
12 Next
13
14
15
16
17
18
 CMAP0
Time  14:12
>
CLASS    ML   OS ALRM  SYSB  MANB UNEQ OFFL  CBSY PBSY  INSV
TRUNKS    0    0    0     0     0    0   12     0    0     8
HSCARR    0    0    0     0     0    0    0     0    0     5



PM    NO CKT     PM    NO CKT     PM    NO CKT     PM    NO CKT
SPM    0   1     SPM    0   2     SPM    0   3     SPM    0 104
SPM    0   5     DTC    0   0     DTC    0   1     DTC    0   2
DTC    0   3     DTC    0   8     DTC    0  12     DTC    0  14
DTC    0  16

DISPLAYED BY CONDITION : INSV
DISP:
```

The DISPLAY screen displays all the carriers in a specified state, and shows the commands available at the DISPLAY level. The PM column lists the peripheral type. The NO column lists the peripheral number. The CKT column lists the circuit number (XPM carriers) or the carrier ID (SPM carriers).

Note: The screen can display both XPM and SPM carriers at the same time.

To execute the DISPLAY command

To execute the DISPLAY command, enter the command name and a condition.

This is an example of the command:

```
>mapci;mtc;trks;carrier;disp insv
```

Commands at the DISPLAY level

The CARRIER commands at the DISPLAY level are as follows:

- Disp
- Next
- Post
- Quit

Note: The purpose, syntax and so on of the CARRIER commands at the DISPLAY level are the same as those at the POST level.

PERFMON screen

The PERFMON screen is specific to SONET carrier performance monitoring. It is a tool used to view performance monitoring values.

The following figure shows the layout of the PERFMON screen. The screen shows all the available commands at the PERFMON level.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
  .       .      .       .      1 SPM    .       .      33 CC     .       .
                                  M                     *C*

 PERFMON
 0 Quit
 2
 3
 4
 5
 6 SilMl
 7
 8
 9 MeterPP
10
11
12
13
14 PPQuery
15
16
17
18

Userid
Time  14:24
>
CLASS    ML   OS ALRM  SYSB  MANB UNEQ  OFFL  CBSY  PBSY  INSV
TRUNKS    1    0   7     7     0    0     0     11    0     6
REMOTE    1    0   5     0     0    0     0      4   32    29
TIMING    1    0   2     0     0    0     0      2    0     0
PROTLN    0    0   0     0     0    0     0      0    0     2
HSCARR    1    0   0     0     0    0     0      0    0  1265

CKT 0    : SPM 0  STS1P 1
Interval:  13:45          Status:
Parm    Count  M D     Parm    Count  M D     Parm    Count  M D
SEFS-N     10          CV-N       35  *       ES-N        5
SES-N       9          LBC-N       0          OPT-N       7
OPR-N       2
```

To execute the PERFMON command

To execute the PERFMON command, enter the command from the POST level, then enter the command name and a carrier display number.

This is an example of the command:

```
>mapci;mtc;trks;carrier;post smp 0; perfmon 0
```

Commands at the PERFMON level

The commands available at the PERFMON level are as follows:

- Clear

  The Clear command resets the 15-minute Performance parameter or 24-hour Performance parameter counts to zero.

  Note: The Clear command is a hidden command; therefore, it does not show up on the PERFMON menu.

- MeterPP

  The MeterPP command allows the user to record the nominal optical power received (OPR) value to be used in calculating the OPR value (valid for OC3 Section carriers only).

- PPQuery

  The PPQuery command displays the current 24-hour Performance parameter counts, the 15-minute Performance parameter, and the 24-hour Performance parameter thresholds.

- Quit

  The Quit command exits the current or multiple CI increments.

- SilMl

  The SilMl command temporarily suppresses Performance parameter alarms on a carrier.

BSY
POST level

Purpose

The Bsy command changes the state of the specified carrier(s) to manual busy (ManB).

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The Bsy command syntax is as follows.

```
BSY: BSY THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]

       [<ALL> {ALL}]
```

A number of rules govern when it is valid to busy an SPM carrier. For example, you cannot busy an SPM carrier whose parent carrier is offline. An SPM carrier that has one or more subcarriers in an in-service state cannot be busied.

General guidelines are as follows:

- When carriers are provisioned, they are put in an offline (OffL) state. When bringing newly provisioned carriers into service for the first time, the carriers must be busied then returned to service from the top of the carrier hierarchy downwards (that is, in the order STM1R, STM1M, VC4P, VC12P, and E1P).
- When the carriers have been put into service and the user wants to busy one or more of them, the carriers must be busied from the bottom of the carrier hierarchy upwards (that is, in the order E1P, VC12P, VC4P, STM1M, and STM1R).

Parameters

The following table describes the parameters.

Table 22-1

Parameter	Value	Description
carrier	0 to 4	Carrier display number
all	all	All carriers in Post set

MAP responses

The following are responses to this command.

Table 22-2 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The Bsy command completed successfully.
`No Action Taken: SPM x CKT y: Software error.`	The Bsy command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	A Bsy request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A Bsy request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Bsy cannot be executed at this time.
`No Action Taken: SPM x CKT y: Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. Bsy cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Bsy cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is MANB.`	The carrier is already in the manual busy state.

Table 22-2 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y: Carrier has one or more INSV, CBSY or SYSB subcarriers.`	The carrier has one or more subcarriers with in-service states. This carrier cannot be busied.
`No Action Taken: SPM x CKT y: Parent carrier OFFL.`	The parent of this carrier is offline. This carrier cannot be busied.
`No Action Taken: SPM x CKT y: Carrier is looped.`	The carrier is in a loopback state. Clear the loopback before busying the carrier.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Bsy command was executed on a carrier that is listed in the Post set, but has since been deleted. Bsy cannot be executed for this carrier.

Example

None

Additional information

When a user executes a Bsy command on an STS3cp carrier, the MAP screen displays the following warning and prompt:

```
All trunks not busy

Do you want to busy this carrier ?

Please confirm (“YES", “Y", “NO", or “N"):
```

DETAIL
POST level

Purpose

The Detail command displays additional detail about one of the posted carriers.

The Detail display now includes:

- support for STM-1 carriers
- the transmitted, expected and received path traces for VC4P and VC12P
- the transmit and receive signal labels for VC4P and VC12P

Note 1: The path trace and signal label information is retrieved only when the carrier is in the InSv state. The system rejects requests for this information for carriers in any state other than InSv.

Note 2: If the received path trace differs from the expected path trace, the system displays the string `Mismatched' in the received path trace field (rather than displaying the received path trace value). This is due to a hardware restriction on the VC12P carrier.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The Detail command syntax is as follows.

```
DETAIL: SHOW FURTHER DETAILS FOR A SPECIFIED POSTED CARRIER

Parms: <CARRIER> {0 TO 4}

       [<TRKS OPT> {TRKS}]
```

Parameters

The following table describes the parameters.

Table 22-3

Parameter	Value	Description
carrier	0 to 4	Carrier display number
trks opt	trks	Trunks option. The system displays detailed information about trunks for the specified carrier.

MAP responses

The following are responses to this command.

Table 22-4 (Sheet 1 of 2)

Response	Explanation and action
`SPM 0 CKT 1 NAME: SPM_0STM1R_1`	The data format shown is a representation of the Detail command performed on a posted carrier without the TRKS option. The only information output is the carrier name, because there is no space for it on the carrier MAP terminal.
`SPM Ckt Trks CLLI Dir Tot SB MB Ext %OS` `0 4 1 SPMIC 2WY 0 0 0 0 0`	The user includes the TRKS option for a carrier that has trunks. The SPM and Ckt numbers correspond to the selected carrier. The other fields are as follows: • Trks — number of datafilled trunks in the trunk group • CLLI — name of a trunk group datafilled on this carrier • Dir — direction of the associated trunk • Tot — total number of trunks in a non-INB state on this carrier • SB — number of system busy trunks in this trunk group on this carrier • MB — number of manual busy trunks in this trunk group on this carrier • Ext — number of Ext busy trunks in this trunk group on this carrier • %OS — percentage number of non-INB trunks in this trunk group on this carrier that are out-of-service All trunk groups datafilled on the carrier are listed.
Carrier not provisioned	The Detail command was executed on a carrier that is listed in the Post set, but has since been deleted. The Detail command cannot be executed for this carrier.
Failed to get carrier info	The system cannot get carrier data for the specified carrier. The Detail command cannot be executed for this carrier.

Table 22-4 (Sheet 2 of 2)

Response	Explanation and action
No Action Taken: SPM X ckt Y: Carrier is not INSV.	The system cannot retrieve the path trace and signal label information because the carrier is not in an in-service state (InSv, CBsy, or SysB).
Out of range: <carrier> {0 to 4}	The Detail command included a carrier number outside the allowed range. Enter the command with a carrier number in the range 0 to 4.

Example

The following table shows examples of the Detail command.

Table 22-5

Command	Description
`DETAIL 2`	Display details of the second carrier on the POST screen.
`DETAIL 2 TRKS`	Display details of the trunks provisioned on the second carrier on the POST screen.

For an example of the display, see the “DISPLAY level" section at the beginning of this chapter.

DISP
DISPLAY and POST level

Purpose

The Disp command allows the user to display all the carriers that correspond to a given condition. A condition can be a state, an alarm, or a limit.

For an example of the display, see the “DISPLAY level" section at the beginning of this chapter.

Note: The screen can display both XPM and SPM carriers at the same time.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

To Disp command syntax is as follows.

```
DISPLAY ALL THE CARRIERS IN A GIVEN CONDITION.

Parms: <CONDITION> {CBSY,
                    PBSY,
                    INSV,
                    MANB
                    SYSB,
                    UNEQ,
                    OFFL,
                    ALARM,
                    OS,
                    ML}
```

Parameters

The following table describes the parameters.

Table 22-6

Parameter	Value	Description
condition	cbsy	C-side busy (state); XPM and SPM
	pbsy	P-side busy (state); XPM
	INSV	In-service (state); XPM and SPM
	MANB	Manual busy (state); XPM and SPM
	SYSB	System busy (state); XPM and SPM
	UNEQ	Unequipped (state); XPM
	OFFL	off-line (state); XPM and SPM
	ALARM	alarm (alarm); XPM and SPM
	OS	out-of-service limit (limit); XPM SYSB-P carriers; SPM
	ML	Maintenance limit (limit); XPM Performance parameter alarms; SPM

MAP responses

None

Example

None

LISTALM

Purpose

The ListAlm command causes detailed alarm information to be displayed. The command is available only for SPM carriers.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The ListAlm command syntax is as follows.

```
LISTALM: SHOW STEADY STATE ALARMS FOR A SPECIFIED POSTED CARRIER

Parms: <CARRIER> {0 TO 4}
```

Parameters

The following table describes the parameters.

Table 22-7

Parameter	Value	Description
carrier	0 to 4	Carrier display number

MAP responses

The following are responses to this command.

Table 22-8 (Sheet 1 of 2)

Response	Explanation and action
ALARM SEVERITY REPORTABILITY LOP Major RPT AIS Minor RPT Resultant/Masked FERF No_Alarm NRPT	The command LISTALM N displays a list of steady state alarms for the carrier whose display number is N. The list shows the alarm severities and reportabilities. The RPT and NRPT values refer to provisioning datafill in table MNHSCARR. The Resultant/Masked text refers to the masking of a failure by an SPM, because the failure is the result of another failure. The system lists the alarms regardless of their reportability. Only alarms present are displayed.
No carrier at specified position	The user entered a display number for which there was no carrier present.
No Steady State Alarms present	There are no Failure/BER alarms present.
Action unconfirmed: SPM x CKT y.	There was no reply from the SPM. Note that x = SPM number and y = carrier number.
Action unconfirmed: SPM x CKT y: Software Error.	The action may not have been taken due to a software error. Record the response and capture the accompanying swerr.
No Action Taken: SPM x CKT y: Messaging to PM unavailable.	There is no messaging to the SPM.
No Action Taken: SPM x CKT y: Invalid carrier state.	The carrier is MANB, OFFL, or SYSB-P, so the carrier's failures have been cleared.
No Action Taken: SPM x CKT y: SYSB-P, Hardware Defect present.	The carrier is SYSB-P. The carrier's failures have been cleared because the carrier has failed hardware tests.
No Action Taken: SPM x CKT y: RM Not Available.	It is not possible to communicate with the resource module; therefore, failure alarm data cannot be retrieved.
No Action Taken: SPM x CKT y: Software Error.	The ListAlm command was not executed on the specified carrier because of a software error. Record the response and capture the accompanying swerr.

Table 22-8 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. ListAlm cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The ListAlm command was executed on a carrier that is listed in the Post set, but has since been deleted. ListAlm cannot be executed for this carrier.

Example

None

LOOP

Purpose

The Loop command provides loopback testing for a specified carrier. The command puts the specified carrier in a given loopback state. Loopback is supported for all applicable SPM carriers and subcarriers.

Note 1: Before executing the Loop command, the specified carrier must be put into the manual busy (ManB) state.

Note 2: Only one active loopback per carrier is allowed. A loopback request for a low-level carrier will fail if the parent carrier is already in the loopback state.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Loopback testing

Loopback is a carrier diagnostic state such that the received signal is returned towards the sender. This diagnostic facility provides improved fault detection and isolation capabilities.

The loopback facility is available at the local and remote near-end.

- Local near-end loopback - this permits the diagnostic facility to test the carrier functions that are internal to the DMS switch.
- Remote near-end loopback - this permits external diagnostic facilities to test the carrier functions that are external to the DMS switch. In this mode, the STM-1 RM provides the loopback for the far end.The type of remote near-end loopback supported is line (unframed) loopback. The whole bandwidth is looped back towards the near-end device. The far end does not alter the framing pattern or data in any way.

The following table shows the STM-1 RM loopbacks that are supported.

Table 22-9

Carrier	Loopback	
	Local near-end	**Remote near-end (Line)**
STM1R	Supported	Supported
STM1M	Not supported	Not supported
VC4P	Supported	Supported
VC12P	Not supported	Not supported
E1P	Supported	Supported

Command syntax

The Loop command syntax is as follows.

```
Loop: Loop the specified carrier

Loop Options:

L - Local

R - Remote

C - Clear

Parms: <Carrier> {0 TO 4}

       <Loop Options>  {L,

                        R,

                        C}
```

Parameters

The following table describes the parameters.

Table 22-10 (Sheet 1 of 2)

Parameter	Value	Description
carrier	0 to 4	Carrier display number
loop options	L	Local loopback

Table 22-10 (Sheet 2 of 2)

Parameter	Value	Description
	R	Remote loopback
	C	Clear loopback

MAP responses

The following are responses to this command.

Table 22-11 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The Loop command successfully completed.
`No Action Taken: SPM x CKT y: Software error.`	The Loop command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	A Loop request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A Loop request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Loop cannot be executed at this time.
`No Action Taken: SPM x CKT y: Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. Loop cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Loop cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is not MANB.`	The carrier is not in manual busy state, so it cannot be put in loopback.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module.
`No Action Taken: SPM x CKT y: Carrier is looped.`	The carrier is already in a loopback state.

Table 22-11 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y:` `Carrier type does not support Loopback.`	The command was issued on a carrier type that does not support loopback.
`No Action Taken: SPM x CKT y: Carrier is not looped.`	The carrier is not in any loopback state; therefore, no action is taken for the request to clear a loopback.
`No Action Taken: SPM x CKT y: A Subcarrier is looped.`	There exists a subcarrier that is already in a loopback state; therefore, no action is taken for the request to set a loopback.
`No Action Taken: SPM x CKT y: Parent Carrier is looped.`	The parent carrier is already in a loopback state; therefore, no action is taken for the request to set a loopback.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Loop command was executed on a carrier that is listed in the Post set, but has since been deleted. Therefore, Loop cannot be executed for this carrier.
`No Action Taken: SPM x CKT y: Messaging to PM unavailable.`	There is no messaging to the SPM.

Example

None

OFFL
POST level

Purpose

The OffL command changes the state of the specified carrier(s) to offline.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The OffL command syntax is as follows.

```
OFFL: OFFLINE THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]

       [<ALL> {ALL}]
```

SPM carriers must be offlined from the bottom of the carrier hierarchy upwards (that is, in the order E1P, VC12P, VC4P, STM1M, and STM1R).

Parameters

The following table describes the parameters.

Table 22-12

Parameter	Value	Description
carrier	0 to 4	Carrier display number
all	ALL	All carriers in Post set

MAP responses

The following are responses to this command.

Table 22-13 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The OffL command successfully completed.
`No Action Taken: SPM x CKT y:` `Software error.`	The OffL command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	An OffL request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y.` `Software error.`	An OffL request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y:` `Mtce In Progress.`	Maintenance action is in progress on this carrier. OffL cannot be executed at this time.
`No Action Taken: SPM x CKT y:` `Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. OffL cannot be executed at this time.
`No Action Taken: SPM x CKT y:` `Carrier is OFFL.`	The carrier is already in the offline state.
`No Action Taken: SPM x CKT y:` `Carrier has one or more MANB subcarriers.`	The carrier has one or more ManB subcarriers. OffL cannot be executed.
`No Action Taken: SPM x CKT y:` `Carrier is looped.`	The carrier is in a loopback state. Clear the loopback before executing OffL.
`No Action Taken: SPM x CKT y:` `Carrier is INSV.`	The carrier is InSv. OffL cannot be executed. Manual busy the carrier before executing OffL.
`No Action Taken: SPM x CKT y:` `Carrier is CBSY.`	The carrier is CBSY. OffL cannot be executed. Manual busy the carrier before executing OffL.
`No Action Taken: SPM x CKT y:` `Carrier is SYSB.`	The carrier is SYSB. OffL cannot be executed. Manual busy the carrier before executing OffL.

Table 22-13 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y:` `Carrier is INSV, CBSY or SYSB.`	The carrier is INSV, CBSY, or SYSB. OffL cannot be executed. Manual busy the carrier before executing OffL.
`Carrier state mismatch: SPM x CKT y:` `Software error.`	The carrier state was updated in SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y:` `Carrier not provisioned.`	The OffL command was executed on a carrier that is listed in the Post set, but has since been deleted. OffL cannot be executed for this carrier.

Example

None

POST
DISPLAY and POST levels

Purpose

The Post command displays carriers based on a condition or a peripheral type. A condition can be a class, a carrier type, a state, an alarm, or a limit type.

For an example of the display, see the “POST level" section at the beginning of this chapter.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

To execute the Post command, enter one of the following

- the command name and a condition
- the command name, the word NAME, and the name of the desired SPM carrier
- the command name and a peripheral type

Note 1: There are two layout formats for the SPM CARRIER POST screen, one for physical carriers (OC3S, STS3L, STM1R, and STM1M) and one for logical carriers (STS1P, VT15P, DS3P, DS1P, VC4P, VC12P, and E1P).

Note 2: When posting carriers by condition, there may be both XPM carriers and SPM carriers that meet the specified condition. In response to the “Post condition" command, the data displayed on a MAPCI screen will pertain either to XPM or SPM carriers. Data for both XPM carriers and SPM carriers will not be shown on the screen at the same time.

The Post command syntax is as follows.

```
POST CARRIER -> SELECT AND DISPLAY A CARRIER.

Parms: [<CONDITION> {TRUNKS,

                     REMOTE,

                     TIMING,
```

PROTLINE,

DS0LNK,

HSCARR,

DS1,

D30,

M20,

TTC,

VT1H,

NDS0,

OC3S,

STS3L,

STS1P,

DS3P,

VT15P,

DS1P,

STM1R,

STM1M,

VC4P,

VC12P,

E1P,

CBSY,

PBSY,

INSV,

MANB,

SYSB,

UNEQ,

OFFL

```
                              ALARM [HS OPT {HS}]
                              OS,
                              ML,
                              EC}]
        [<CARNAME> {NAME <THE_NAME> STRING}]
        [<PM>... {DCM <NO> {0 TO 511}
                           [<CARRIER> {0 TO 4}]
                           [<TRKS OPT> {TRKS}]
                           [<REM END> {REM}],
                    DCA <NO> {0 TO 511}
                           [<CARRIER> {0 TO 3}]
                           [<TRKS OPT> {TRKS}]
                           [<REM END> {REM}],
                  DCT <NO> {0 TO 511}
                           [<CARRIER> {0 TO 3}]
                           [<TRKS OPT> {TRKS}]
                           [<REM END> {REM}],
                  DTC <NO> {0 TO 255}
                           [<CARRIER> {0 TO 19}]
                           [<TRKS OPT> {TRKS}]
                           [<REM END> {REM}],
                  LTC <NO> {0 TO 255}
                           [<CARRIER> {0 TO 19}]
                           [<TRKS OPT> {TRKS}]
                           [<REM END> {REM}],
                  LGC <NO> {0 TO 255}
                           [<CARRIER> {0 TO 19}]
```

```
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}]
IDTC <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
SMR <NO>  {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
SMS <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
SMU <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
ILGC <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
ILTC <NO> {0 TO 255}
            [<CARRIER> {0 TO 19}]
            [<TRKS OPT> {TRKS}]
            [<REM END> {REM}],
SMSR <NO> {0 TO 255}
```

```
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               ADTC <NO> {0 TO 255}
                    [<CARRIER> {0 TO 15}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               ALGC <NO> {0 TO 255}
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               PDTC <NO> {0 TO 255}
                    [<CARRIER> {0 TO 19}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}]
                    [<PCM OPT> {D30,
                                M20,
                                TTC,
                                NDS0}],
               TDTC <NO> {0 TO 511}
                    [<CARRIER> {0 TO 15}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
               TLGC <NO> {0 TO 511}
                    [<CARRIER> {0 TO 15}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}],
```

```
TLTC <NO> {0 TO 511}
          [<CARRIER> {0 TO 15}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
PLGC <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
TAC <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
TMS <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
SMA <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
DTCI <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
ICP <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
```

```
                [<REM END> {REM}],
ITAC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
DFI <NO> {0 TO 255}
                [<CARRIER> {0 TO 20}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}]
                [<SNT OPT> {VT1H}],
HSI2 <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
GPP <NO> {0 TO 255}
                [<CARRIER> {0 TO 53}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
RCC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}]
                [<C-side Carrier> {C}],
RMSC <NO> {0 TO 255}
                [<CARRIER> {0 TO 19}]
                [<TRKS OPT> {TRKS}]
                [<REM END> {REM}],
```

```
TRCC <NO> {0 TO 511}
          [<CARRIER> {0 TO 15}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}],
RCCI <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}]
          [<C-side Carrier> {C}],
ARCC <NO> {0 TO 255}
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}]
          [<C-SIDE CARRIER> {C}],
PRCC <NO> {0 TO 255
          [<CARRIER> {0 TO 19}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}]
          [<C-SIDE CARRIER> {C}],
RCC2 <NO> {0 TO 255}
          [<CARRIER> {0 TO 53}]
          [<TRKS OPT> {TRKS}]
          [<REM END> {REM}]
          [<C-SIDE CARRIER> {C}],
SRCC <NO> {0 TO 255}
          [<CARRIER> {0 TO 53}]
          [<TRKS OPT> {TRKS}]
```

```
                    [<REM END> {REM}]
                    [<C-SIDE CARRIER> {C [<SNT OPT>{VT1H}]}],
          RCO2 <NO> {0 TO 255}
                    [<CARRIER> {0 TO 53}]
                    [<TRKS OPT> {TRKS}]
                    [<REM END> {REM}]
                    [<C-SIDE CARRIER> {C}],
          SPM <NO> {0 TO 63}
                    [<CKTID> {0 TO 181}]
                    [<CARR_TYPE> {OC3S,
                                  STS3L,
                                  STSCP,
                                  STS1P,
                                  DS3P,
                                  VT15P,
                                  DS1P,
                                  STM1R,
                                  STM1M,
                                  VC4P,
                                  VC12P,
                                  E1P}}
                    [<STATE>  {CBSY,
                               PBSY,
                               INSV,
                               MANB,
                               SYSB,
                               UNEQ,
```

```
                                        OFFL}]}]
```

Parameters

The following table describes the parameters.

Table 22-14 (Sheet 1 of 6)

Parameter	Value	Description
condition		A condition that the carrier may possess (optional)
	TRUNKS	The carrier has trunks (class); XPM and SPM
	REMOTE	The carrier has a remote end (class); XPM
	TIMING	The carrier is a timing carrier (class); XPM
	PROTLINE	The carrier is protected; XPM
	DS0LNK	DS-0 link (class); XPM
	HSCARR	High-speed carrier (class); SPM
	DS1	Carrier type; XPM
	DS30	Carrier type; XPM
	M20	Carrier type; XPM
	TTC	Carrier type; XPM
	VT1H	Carrier type; XPM
	NDS0	Carrier type; XPM
	OC3S	OC3 section (carrier type); SPM
	STS3L	STS3 line (carrier type); SPM
	STS3cP	STS3c path (carrier type); SPM
	STS1P	STS1 path (carrier type); SPM
	DS3P	DS3 path (carrier type); SPM
	VT15P	VT15 path (carrier type); SPM
	DS1P	DS1 path (carrier type); SPM
	DS1L	DS1 line (carrier type); SPM
	STM1R	STM1R section (carrier type); SPM

Table 22-14 (Sheet 2 of 6)

Parameter	Value	Description
	STM1M	STM1M section (carrier type); SPM
	VC4P	VC4 path (carrier type); SPM
	VC12P	VC12 path (carrier type); SPM
	E1P	E1 path (carrier type); SPM
	CBSY	C-side busy (state); XPM and SPM
	PBSY	P-side busy (state); XPM
	INSV	In-service (state); XPM and SPM
	MANB	Manual busy (state); XPM and SPM
	SYSB	System busy (state); XPM and SPM
	UNEQ	Unequipped (state); XPM
	OFFL	Offline (state); XPM and SPM
	ALARM	Alarm (alarm); XPM and SPM
	OS	Out-of-service limit (limit); XPMs, SPM carriers that are SYSB-P
	ML	Maintenance limit (limit); XPMs, Performance Parameter alarms; SPM
	EC	Echo (echo type); XPM
hs opt	HS	An alarm option (optional); applicable only to peripherals which have high-speed carriers; SPM
carname	NAME	Constant used to denote the desire to post a carrier by its name (optional); SPM
the_name	string	The logical name of the SPM carrier; a string of up to 38 characters
pm	DCM	An XPM
	DCA	An XPM
	DCT	An XPM
	DTC	An XPM

Table 22-14 (Sheet 3 of 6)

Parameter	Value	Description
	LTC	An XPM
	LGC	An XPM
	IDTC	An XPM
	SMR	An XPM
	SMS	An XPM
	SMU	An XPM
	ILGC	An XPM
	ILTC	An XPM
	SMSR	An XPM
	ADTC	An XPM
	ALGC	An XPM
	PDTC	An XPM
	TDTC	An XPM
	TLTC	An XPM
	PLGC	An XPM
	TAC	An XPM
	TMS	An XPM
	SMA	An XPM
	DTCI	An XPM
	ICP	An XPM
	ITAC	An XPM
	DFI	An XPM
	HSI2	An XPM
	GPP	An XPM
	RCC	An XPM
	RMSC	An XPM

Table 22-14 (Sheet 4 of 6)

Parameter	Value	Description
	TRCC	An XPM
	RCCI	An XPM
	ARCC	An XPM
	PRCC	An XPM
	RCC2	An XPM
	SRCC	An XPM
	RCO2	An XPM
	SPM	An SPM
no	0 to max_pm; the maximum is unique for each type of peripheral	The peripheral number (required), or SPM node number. If a peripheral is selected, specify a peripheral number.
carrier	0 to max_carrier; the maximum number of carriers is unique to the peripheral type	The carrier number (optional). If a peripheral and peripheral number are specified, specify a carrier number. If no carrier number is specified, the screen displays all carriers on the specified SPM.
trks opt	TRKS	A carrier option (optional); XPM. If a peripheral, a peripheral number and a carrier number are specified, specify the TRKS OPT carrier option. For XPMs, specify the TRKS OPT option or the REM END option for a carrier, but not both at the same time.
rem end	REM	A carrier option (optional); XPMs. If a peripheral, a peripheral number and a carrier number are specified, specify the REM END carrier option. Specify the TRKS OPT option or the REM END option for a carrier, but not both at the same time.
pcm opt		Available for the PDTC peripheral only (optional)
	D30	Carrier type; XPM
	M20	Carrier type; XPM

Table 22-14 (Sheet 5 of 6)

Parameter	Value	Description
	TTC	Carrier type; XPM
	NDS0	Carrier type; XPM
snt opt	VT1H	A SONET option (optional); available for the DFI peripheral; available for the SRCC peripheral as an option to the C-side carrier option
C-side carrier	C	A carrier option (optional); available only for RCC, RCCI, ARCC, PRCC, RCC2, SRCC, RCO2 peripherals. If a peripheral and a peripheral number are specified, specify the C-SIDE CARRIER carrier option. If a peripheral, a peripheral number, and a carrier number are specified, specify the C-SIDE CARRIER carrier option.
cktid	0 to 181	SPM carrier number. The screen displays the specified circuit and all carriers hierarchically below that circuit.
carr_type		Carrier type. The screen displays all carriers of that type on the SPM.
	OC3S	OC3 section (carrier type); SPM
	STS3L	STS3 line (carrier type); SPM
	STS3cP	STS3cp path (carrier type); SPM
	STS1P	STS1 path (carrier type); SPM
	DS3P	DS3 path (carrier type); SPM
	VT15P	VT15 path (carrier type); SPM
	DS1P	DS1 path (carrier type); SPM
	STM1R	OC3 section (carrier type); SPM
	STM1M	OC3 section (carrier type); SPM
	VC4P	OC3 section (carrier type); SPM
	VC12P	OC3 section (carrier type); SPM
	E1P	OC3 section (carrier type); SPM

Table 22-14 (Sheet 6 of 6)

Parameter	Value	Description
state		Carrier state (optional). The screen displays all carriers in that state on the SPM. ***Note:*** This parameter cannot be used with the CKTID parameter.
	CBSY	C-side busy
	PBSY	P-side busy
	INSV	In service
	MANB	Manual busy
	SYSB	System busy
	UNEQ	Unequipped
	OFFL	Offline

MAP responses

The following are responses to this command.

Table 22-15 (Sheet 1 of 2)

Response	Explanation and action
`POST NAME xxxxx` `No carrier with that logical name`	The user tried to post a carrier by a nonexistent logical name. The first line of the response echoes the Post command (xxxxx represents the name entered). The error response displays below the data already displayed on the screen. Execute any of the menu or unlisted commands available at the current level.
`Specified PM has no carriers`	The SPM specified has no carriers or there is no such SPM.
`Specified carrier does not exist`	There is no carrier for the specified circuit.
`Empty set`	There are no carriers in the set specified (for example, POST SPM 0 E1P when there are no E1 paths on the SPM). ***Note:*** The set can be a carrier type or an SPM state.

Table 22-15 (Sheet 2 of 2)

Response	Explanation and action
`REENTER POST LEVEL - The last displayed carrier was deleted`	If the user has performed a post by condition (for example, POST INSV and the last carrier on the screen is deleted in table MNHSCARR), the result of Next can be misleading. Enter the Post command again.
`Do not specify CKT to post Physical Carrier Ancestors.`	The user specified the circuit number while trying to post physical carrier ancestors. Since either physical carrier may be carrying payload at any time, the user should post by carrier type to get an accurate picture of the carrier state. Example: `POST SPM 1 15 OC3S` Enter the command again without specifying the SPM number or circuit number.

`PM types incompatible.`	The user attempted to post multiple carriers by specifying them individually, but the pmtypes of all the carriers are not the same. Examples of erroneous input include the following:
	
	`POST SPM 0 1 DTC 10 5`
	
	`POST DTC 2 5 SPM 1 0`
	
	Enter the command again specifying carriers of a single pmtype.

EITHER incorrect optional parameter(s) OR too many parameters.	The user attempted to post multiple carriers by specifying them individually, but did not use the format required. Examples of erroneous input include the following:
	
	`POST SPM 0 1 STS1P SPM 1 5`
	
	`POST SPM 2 0 SPM 1 6 DS1P`
	
	`POST SPM 0 5 SPM 1`
	
	`POST SPM 0 SPM 1 6`
	
	`POST SPM 0 5 5`
	
	Enter the command again using correct syntax.

Examples

The following table shows examples of the Post command.

Table 22-16 (Sheet 1 of 2)

Command	Description
`POST SPM 5`	Post a carrier set specifying the SPM number only. A Post set is created that contains all the carriers on the SPM. Carriers are sorted hierarchically starting with OC3 Section.
`POST SPM 5 15`	Post a carrier set specifying the SPM number and the circuit number. A Post set is created that contains the specified circuit and all the carriers hierarchically below that carrier.
`POST SPM 5 VT15P`	Post a carrier set specifying the SPM number and carrier type. A Post set is created that contains all the carriers on the SPM of that carrier type.
`POST SPM 5 15 VT15P`	Post a carrier set specifying SPM number and circuit, with a carrier type that is hierarchically below or the same as the specified circuit. A Post set is created that contains the specific circuit and all the carriers hierarchically below that carrier and with the specified carrier type. If the carrier type specified is the same as the circuit specified, the Post set contains only that carrier.
`POST SPM 5 120 STS1P`	Post a carrier set specifying the SPM number, circuit, and a carrier type that is for a logical carrier hierarchically above the specified circuit. A Post set is created that contains the ancestor carrier of the specified carrier type.

`POST SPM 5 120 OC3S`
 	
`Do not specify CKT to post Physical Carrier Ancestors.`
	Post a carrier set specifying the SPM number and circuit, with a carrier type that is for a physical carrier hierarchically above the specified circuit.
	
	Since either physical carrier may be carrying payload at any time, the user should post by carrier type to get an accurate picture of the carrier state. Example:
	
	`POST SPM 5 OC3S`

Table 22-16 (Sheet 2 of 2)

Command	Description
`POST SPM 0 1 SPM 0 5 SPM 1 35 SPM 1 40 SPM 2 0`	Post a carrier set specifying the PM type, peripheral number, and circuit number of each of the carriers individually. Note that a maximum of five carriers can be specified and all PM types must be the same. A Post set is created that contains the specified carriers. The parameters are interpreted literally. If such a circuit present, it is added in order to the Post set.
`POST NAME <CARRIER NAME>`	Post a carrier set specifying a carrier name. A Post set is created that contains the named carrier (SPM only).
`POST SPM 3 INSV`	Post a carrier set specifying a carrier state. A Post set is created that contains the carriers in the specified state (for example, in-service) on the SPM.
`POST ML`	Post a set of carriers containing SPM carriers that have Performance Parameter alarms and XPM carriers that have Maintenance Limit alarms. A Post set is created that contains SPM carriers that have Performance Parameter alarms and XPM carriers that have Maintenance Limit alarms.
`POST OS`	Post a set of carriers containing SPM carriers that are SYSB-P (permanently out of service due to failing hardware tests) and XPM carriers that have out-of-service carrier alarms. A Post set is created that contains SPM carriers that are SYSB-P and XPM carriers that have out-of-service alarms.

RTS
POST level

Purpose

The Rts command changes the state of the specified carrier(s) to in-service (InSv).

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The Rts command syntax is as follows.

```
RTS    RTS THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]

       [<ALL> {ALL}]

       [<FORCE> {FORCE}]
```

A number of rules govern when it is valid to return to service (RTS) an SPM carrier. For example, one cannot RTS a SPM carrier whose parent carrier is offline (OffL) or manual busy (ManB).

SPM carriers must be returned to service from the top of the carrier hierarchy downwards (that is, in the order STM1R, STM1M, VC4P, VC12P, and E1P).

Parameters

The following table describes the parameters.

Table 22-17

Parameter	Value	Description
carrier	0 to 4	Carrier display number
all	ALL	All carriers in Post set
force	FORCE	Do not run tests

MAP responses

The following are responses to this command.

Table 22-18 (Sheet 1 of 2)

Response	Explanation and action
`Ok.`	The Rts command successfully completed.
`No Action Taken: SPM x CKT y: Software error.`	The Rts command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.
`Action unconfirmed: SPM x CKT y.`	An Rts request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	An Rts request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Rts cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Rts cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is INSV.`	The carrier is already in an in-service state.
`No Action Taken: SPM x CKT y: Carrier is CBSY.`	The carrier is already in a CBsy in-service state.
`No Action Taken: SPM x CKT y: Carrier is SYSB.`	The carrier is already in an SysB in-service state.
`No Action Taken: SPM x CKT y: Carrier is OFFL.`	The carrier is in an offline state. Rts cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier has an OFFL or MANB parent carrier.`	The parent of this carrier is out of service. Rts cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is looped.`	The carrier is in a loopback state. Clear the loopback before executing Rts.

Table 22-18 (Sheet 2 of 2)

Response	Explanation and action
`No Action Taken: SPM x CKT y: Carrier is INSV, CBSY or SYSB.`	The carrier is InSv, CBsy, or SysB. Rts cannot be executed.
`No Action Taken: SPM x CKT y: Tests failed.`	Tests failed on RTS. Carrier was not returned to service.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module; therefore, Rts cannot be executed at this time.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Rts command was executed on a carrier that is listed in the Post set, but has since been deleted. Rts cannot be executed for this carrier.

Example

None

TST

Purpose

The Tst command tests the specified carrier.

Note: Before using the Tst command, the user must put the carrier into the manual busy (MANB) state.

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The Tst command syntax is as follows.

```
Tst: TEST THE SPECIFIED CARRIER

Parms: [<CARRIER> {0 TO 4}]
```

Parameters

The following table describes the parameters.

Table 22-19

Parameter	Value	Description
carrier	0 to 4	Carrier display number

MAP responses

The following are responses to this command.

Table 22-20 (Sheet 1 of 2)

Response	Explanation and action
`Carrier test passed.`	The tests passed.
`No Action Taken: SPM x CKT y: Software error.`	The Tst command was not executed on the specified carrier (x = SPM number and y = carrier number) because of a software error. Record the response and capture the accompanying swerr.

Table 22-20 (Sheet 2 of 2)

Response	Explanation and action
`Action unconfirmed: SPM x CKT y.`	A Tst request for the specified carrier was submitted, but it is unclear whether the request was completed.
`Action unconfirmed: SPM x CKT y: Software error.`	A Tst request for the specified carrier was submitted, but it is unclear whether the request was completed. There was a software error. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Mtce In Progress.`	Maintenance action is in progress on this carrier. Tst cannot be executed at this time.
`No Action Taken: SPM x CKT y: Subcarrier Mtce In Progress.`	Maintenance action is in progress on a subcarrier of this carrier. Tst cannot be executed at this time.
`No Action Taken: SPM x CKT y: Parent Carrier Mtce In Progress.`	Maintenance action is in progress on the parent carrier of this carrier. Tst cannot be executed at this time.
`No Action Taken: SPM x CKT y: Carrier is not MANB.`	The carrier is not in manual busy state; therefore, it cannot be tested.
`Tests failed.`	The tests failed.
`No Action Taken: SPM x CKT y: RM Not Available.`	It is not possible to communicate with the resource module; therefore, no action is taken for the Tst command.
`Carrier state mismatch: SPM x CKT y: Software error.`	The carrier state was updated in the SPM, but not in the switch. Record the response and capture the accompanying swerr.
`No Action Taken: SPM x CKT y: Carrier not provisioned.`	The Tst command was executed on a carrier that is listed in the Post set, but has since been deleted. Therefore, Tst cannot be executed for this carrier.
`No Action Taken: SPM x CKT y: Messaging to PM unavailable.`	There is no messaging to the SPM.

Example

None

CARRUTIL level

This chapter describes the syntax, purpose, and semantics of the CARRUTIL commands for the Spectrum peripheral module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The CARRUTIL level gives the user access to a number of carrier monitoring utilities. These commands are non-menu and support Spectrum carriers only.

The CARRUTIL commands are as follows:

- DumpHist - retrieves and displays the historical data for all carriers or a selected carrier
- GetHist - retrieves historical performance monitoring (PM) data.
- Help - provides information about the CARRUTIL commands
- ListHist - displays the historical data retrieved by the GetHist command
- Quit - exits the CARRUTIL level
- SetCarr - specifies the carrier to be monitored (placed in context)

To access the directory

To access the CARRUTIL directory, enter the following command:

```
>carrutil
```

To return to CI

```
>quit
```

Additional information

From the SP11 release, the CARRUTIL commands are not supported on Asynchronous Transfer Mode (ATM) carriers. If a user executes the CARRUTIL commands on the ATM carriers, the MAP screen displays the following message:

```
carrutil is not supported for ATM carriers
```

DUMPHIST (CARRUTIL level)

Purpose

The DumpHist (DH) command allows the user to retrieve and display the historical data for all the carriers, or for a specified carrier.

Command type

Non-menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The DumpHist command syntax is as follows:

```
DUMPHIST

Dump Carrier History Data

Parms: <COUNTS> {MIN [<MIN_PERIODS> {FILE <filename> STRING,

LAST <NO_OF_MIN> {1 to 96},

ALL}},

DAY [<DAY_PERIODS> {FILE <filename> STRING,

LAST <NO_OF_DAY> {1 to 7},

ALL}]}

[<FN_LENGTH> {LONG>,

SHORT}]
```

Parameters

The following table describes the parameters.

Table 22-21

Parameter	Value	Description
counts	MIN [<min_periods>], DAY [<day_periods>]	The required time units for the data display. MIN indicates 15-minute data. DAY indicates 24-hour data.
min_periods	FILE <filename>, LAST <no_of_min>, ALL	The particular 15-minute data required. FILE allows the user to specify the file name of the 15-minute historical data to be uuencoded. LAST allows the user to specify the last n 15-minute periods of data. ALL allows the user to specify a maximum of 24 hours (96 15-minute periods) of data, depending on the availability of the data.This parameter is optional. The default value is LAST 1.
filename	string	File name. The file name of the 15-minute historical data to be uuencoded.
no_of_min	1 to 96	The number (n) of 15-minute periods specified with the LAST parameter.
day_periods	FILE <filename>, LAST <no_of_day>, ALL	The particular 24-hour data required. FILE allows the user to specify the file name of the 24-hour historical data to be uuencoded. LAST allows the user to specify the last n 24-hour periods of data. ALL allows the user to specify a maximum of seven days of data (depending on the availability of the data).This parameter is optional. The default value is LAST 1.
no_of_day	0 to 7	The number (n) of 24-hour periods specified with the LAST parameter.
fn_length	{LONG, SHORT	The file name format to write into the uuencoded file. LONG indicates that the file name is in the same format as in the CM. SHORT indicates that the file name format of the is DDHHMMSQ.P15 or DDHHMMSQ.P24.This parameter is optional. The default value is LONG.

MAP responses

The following are responses to this command.

Table 22-22

Response	Explanation and action
`EITHER incorrect optional parameter(s) OR too many parameters.`	The user has entered text that is not a parameter, or has entered the parameters in an invalid sequence.Use the DumpHist command with the appropriate parameters.
`No Carrier in context.` `Execute SetCarr to put a carrier in context.`	The user issued a DumpHist command without previously selecting a carrier.Use the SetCarr command to select a carrier, then reissue the DumpHist command.

Examples

The following table shows examples of the DumpHist command.

Table 22-23

Command	Description
`DUMPHIST MIN FILE 20080232PM15`	The system uuencodes the data for the last 15-minute period in file 20080232PM15.
`DUMPHIST DAY FILE PN980816000100PM24`	The system uuencodes the data for the last 24-hour period in file 980816000100PM24.

The following figure shows an example of the DumpHist report format.

```
begin 644 20080232.P15
M”''('''',3DY.2\P,R\R,”'P.#HP,#HP,#XP,#'@4T%4+@?/'$\'”'''''''
M'''”''''''''''''''$!'0$!''''''''''''''''!0$#'0''''''''''''''
M''''''''''''''''''''''''''''/W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]
M_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]
.
.
.
M_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]
M_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]_?W]
”_?W]
'
end
```

HELP (CARRUTIL level)

Purpose

The Help command provides information about the commands available at the CARRUTIL level.

Command type

Non-menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The Help command syntax is as follows.

```
Help:

Parms: [<COMMAND> {HELP,
                   SETCARR,
                   GETHIST,
                   LISTHIST,
                   DUMPHIST,
                   QUIT}]
```

Parameters

The following table describes the parameters.

Table 22-24

Parameter	Value	Description
None		The Help command without parameters lists all the CarrUtil commands, with descriptions of their functions.
command	DUMPHIST, GETHIST, HELP, LISTHIST, QUIT, SETCARR	The command for which information is required (optional). The system displays a description of the single command specified.

MAP responses

None

Examples

The following are examples of the Help command.

```
>Help

>Help HELP

>Help SETCARR

>Help GETHIST

>Help LISTHIST

>Help DUMPHIST

>Help QUIT
```

The following figures show examples of the Help display.

```
>help
SPM Carrier Utilities

Sub-command  Abv.  Description
-----------  ----  ------------------------------------------------------------
Help         ---   describes a command's functionality.
SetCarr      SC    selects the carrier to be placed in context.
GetHist      GH    retrieves historical performance monitoring data.
ListHist     LH    displays historical performance monitoring data.
DumpHist     DH    retrieves and displays historical performance monitoring data.
Quit         ---   exits the CarrUtil CI increment.
```

```
>help setcarr
The SetCarr (SC) command allows the specification of the carrier to be placed in context.
This carrier can then be operated on by other commands provided by the CarrUtil CI
increment.
```

LISTHIST (CARRUTIL level)

Purpose

The ListHist (LH) command displays the historical data retrieved by the last successful GetHist command. ListHist displays the data as ratios or raw counts.

Command type

Non-menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The ListHist command syntax is as follows.

```
LISTHIST

Display collected archived Performance Monitoring data.

Parms: [<DATATYPE> {RAW_COUNTS}]
```

Parameters

The following table describes the parameters.

Table 22-25

Parameter	Value	Description
None		The ListHist command without parameters displays the STM-1 performance data as ratios.
datatype	RAW_COUNTS	Data type. RAW_COUNTS specifies that the system displays the STM-1 performance data as counts.

MAP responses

The following are responses to this command.

Table 22-26

Response	Explanation and action
`EITHER incorrect optional parameter(s) OR too many parameters.`	The user has entered text that is not a parameter, or has entered the parameters in an invalid sequence.Use the ListHist command with the appropriate parameters.
`GetHist must be executed before ListHist.`	The user has issued a ListHist command without previously retrieving any data.Use the GetHist command to retrieve data for the trunk specified by SetCarr, then reissue the ListHist command.

Examples

The following figure is an example of the ListHist report, showing 15-minute STM-1 performance data as raw counts, for the near end of the STM1R carrier specified in the command. The dash entries (-) indicate that data for that parameter was not collected/retrieved during that time period. The asterisk (*) in the third column indicates that the Invalid Data Flag (IDF) was set for the collection period.

```
>LISTHIST RAW_COUNTS
SPM    0  STM1RM 0  STM1R 0                  NE
Archived 15 Minute Performance Monitoring Data Report
Generated at 99/04/13 16:48
Ended secs I   BBE-N   ES-N  SES-N  UAS-N  LBC-N  OPT-N  OPR-N
16:30  900         0      0      0      0    105     99     70
16:15  900         -      -      -      -      -      -      -
16:00  900         0      0      0      0    105     99     70
15:45  900 *       0      0      0      0    104     99     70
.
.
.
9:30   900       116     13      3      0    105     99     69
9:15   900         0      0      0      0    104     99     70
9:00   900         0      0      0      0    104     99     70
8:45   900         0      0      0      0    105     99     70
End of report.
```

The following figure shows the same 15-minute STM-1 performance data as ratios.

```
>LISTHIST
SPM    0  STM1RM 0  STM1R 0                  NE
Archived 15 Minute Performance Monitoring Data Report
Generated at 99/04/13 16:50
Ended secs I   BBE-N   ES-N  SES-N  UAS-N  LBC-N  OPT-N  OPR-N
16:30  900         0      0      0      0   1.05   0.99   0.70
16:15  900         -      -      -      -      -      -      -
16:00  900         0      0      0      0   1.05   0.99   0.70
15:45  900 *       0      0      0      0   1.04   0.99   0.70
.
.
.
9:30   900 1.57E-5 1.76E-6 4.06E-7      0    1.05     0.99     0.69
9:15   900         0      0      0      0    1.04     0.99     0.70
9:00   900         0      0      0      0    1.04     0.99     0.70
8:45   900         0      0      0      0    1.05     0.99     0.70
End of report.
```

The following figure is an example of the ListHist report, showing 24-hour STM-1 performance data as raw counts, for the near end of the STM1R carrier specified.

```
>LISTHIST RAW_COUNTS
SPM    0  STM1RM 0  STM1R 0                  NE
Archived 15 Minute Performance Monitoring Data Report
Generated at 99/04/13 17:12
Ended secs I   BBE-N   ES-N  SES-N  UAS-N  LBC-N  OPT-N  OPR-N
4/12  86400      497      0      0      0    105     99     70
4/11  86400      230      0      0      0    104     99     70
4/10  86400      120     15      6      0    105     99     70
4/09  86400       67      0      0      0    105     99     70
End of report.
```

SETCARR (CARRUTIL level)

Purpose

The SetCarr command sets a carrier to be in context. The user must issue a SetCarr command to put the required carrier in context before using any of the other CarrUtil commands to monitor the carrier.

The SetCarr command can specify the required carrier by

- name - provisioned carriers only
- circuit identifier - provisioned carriers only
- carrier payload description - provisioned and non-provisioned carriers

Note: The facility to set a non-provisioned carrier in context enables the GetHist command to retrieve historical performance monitoring (PM) data for a carrier that was previously provisioned.

Command type

Non-menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The SetCarr command syntax is as follows.

```
SETCARR

Select the Carrier to be in context.

Parms: [<CARRNAME> {NAME <THE_NAME> STRING}]

       <PM> {SPM <NO> {0 TO 63}

            [<CKTID> {0 TO 181}]

            <CARRIER> {CKT <CKTID> {0 TO 181},

                  OC3RM <PACKNO> {0 TO 1}

                     <PCMTYPE> {OC3S [<CKTNO> {0 TO 0}]

                     [<PCMTYPE> {STS3L [<CKTNO> {0 TO 0}]}]},
```

```
                                    STS1P <CKTNO> {1 TO 3}
                                       [<PCMTYPE> {DS3P [<CKTNO> {1 TO 1}]
                                       [<PCMTYPE> {DS1P <CKTNO> {1 TO 28}}],
                                    VT15P <CKTNO> {1 TO 28}
                                       [<PCMTYPE> {DS1P [<CKTNO> {1 TO 1}]}]}],
                                    STM1RM <PACKNO> {0 TO 1}
                                       <PCMTYPE> {STM1R [<CKTNO> {0 TO 0}]
                                       [<PCMTYPE> {STM1M [<CKTNO> {0 TO 0}]}]},
                                    VC4P [<CKTNO> {1 TO 1}]
                                       [<PCMTYPE> {VC12P <CKTNO> {1 TO 63}
                                       [<PCMTYPE> {E1P [<CKTNO> {1 TO 1}]}]}]}}
```

Parameters

The following table describes the parameters.

Note: The SetCarr command can specify the required carrier by name, circuit identifier or carrier payload description. Whichever method is used, the parameters for the other methods can be treated as optional, and therefore ignored.

Table 22-27 (Sheet 1 of 3)

Parameter	Value	Description
None		The SetCarr command without parameters displays the carrier that is currently in context. The SetCarr command with the following two parameters specifies the carrier by name.
carrname	NAME <the_name>	Carrier name.
the_name	string, maximum 38 characters	The logical name of an SPM carrier. The SetCarr command with the following three parameters specifies the carrier by circuit identifier.

Table 22-27 (Sheet 2 of 3)

Parameter	Value	Description
pm	SPM <no> <cktid>	Peripheral type.
no	0 to 63	Peripheral number.
cktid	0 to 181	SPM carrier number.
		The SetCarr command with the following parameters specifies the carrier by payload description.
pm	SPM <no> <carrier>	Peripheral type.
no	0 to 63	Peripheral number.
carrier	CKT <cktid>	Circuit number.
	OC3RM <oc3rm_packno> <oc3s_ind>	OC-3 payload (for details, see “OC-3 RM parameters" below)
	STS1P <sts1p_cktno> [<ds3p_ind>, <vt15p_ind>]	STS1 path (for details, see “STS1 path parameters" below)
	STM1RM <stm1rm_packno> <stm1r_ind>	STM-1 payload (for details, see “STM-1 RM parameters" below)
	VC4P <vc4p_cktno> [<vc12p_ind>]	VC4 path (for details, see “VC4 path parameters" below)
cktid	0 to 181	SPM carrier number.
		OC-3 RM parameters(physical carrier):
oc3rm_packno	0, 1	OC-3 RM number.
oc3s_ind	OC3S 0 <sts3l_ind>	Indicates that the circuit is, or is within, the OC3S carrier.
sts3l_ind	STS3L 0	Indicates that the circuit is an STS3L carrier.
		STS1 path parameters(logical carrier):

Table 22-27 (Sheet 3 of 3)

Parameter	Value	Description
sts1p_cktno	1 to 3	STS1P circuit number.
ds3p_ind	DS3P 1 <ds3p_ds1p_ind>	Indicates that the carrier is, or is within, the DS3P carrier.
ds3p_ds1p_ind	DS1P <ds1p_cktno>	Specifies a DS1P circuit within a DS3P carrier.
ds1p_cktno	1 to 28	DS1P circuit number.
vt15p_ind	VT15P <vt15p_cktno> <vt15p_ds1p_ind>	Indicates that the carrier is, or is within, the VT15P carrier.
vt15p_cktno	1 to 28	VT15P circuit number.
vt15p_ds1p_ind	DSP1	Specifies a DS1P circuit within a VT15P carrier.
		STM-1 RM parameters(physical carrier):
stm1rm_packno	0, 1	STM-1 RM number.
stm1r_ind	STM1R 0 <stm1m_ind>	Indicates that the carrier is, or is within, the STM-1 Regenerator section.
stm1m_ind	STM1M 0	Indicates that the STM-1 Multiplier PM data is to be displayed.
		VC4 path parameters(logical carrier):
vc4p_cktno	1	VC4P circuit number.
vc12p_ind	VC12P <vc12p_cktno> <e1p_ind>	Indicates that the carrier is, or is within, the VC12P carrier.
vc12p_cktno	1 to 63	VC12P circuit number.
e1p_ind	E1P 1	Indicates that the STM-1 E1 path PM data is to be displayed.

MAP responses

The following are responses to this command.

Table 22-28 (Sheet 1 of 2)

Response	Explanation and action
SPM 5 STM1RM 0 STM1M O SPM 5 0:Name MYSTM1M	The SetCarr command successfully selects a carrier that is provisioned. The system displays the carrier currently in context. Execute any CarrUtil command that can operate on a provisioned carrier. ***Note:*** The carrier may not remain provisioned. The user can deprovision a carrier while it is in context within the CarrUtil CI increment.
SPM 5 VC12P 18 E1P 0 This Carrier is currently not provisioned.	The SetCarr command successfully selects a carrier that is not provisioned. The system displays the carrier currently in context, but indicates that the carrier is not provisioned. Execute any CarrUtil command that can operate on a carrier, but does not require the carrier to be provisioned. ***Note:*** The carrier may become provisioned. The user can provision a carrier while it is in context within the CarrUtil CI increment.
EITHER incorrect optional parameter(s) OR too many parameters. INFO: Carrier previously in context will remain in context. SPM 5 STM1RM 0 STM1M O SPM 5 0:Name MYSTM1M	The user entered text that is not a parameter, or entered the parameters in an invalid sequence. The system displays the carrier previously in context; this carrier remains in context. Use the SetCarr command with the appropriate parameters to put a new carrier in context.
No Carrier in context. This Carrier is currently not provisioned.	The user issued a SetCarr command with no parameters when no carrier is in context. Use the SetCarr command with the appropriate parameters to put a carrier in context, before executing any CarrUtil commands that require a carrier to be in context.

Table 22-28 (Sheet 2 of 2)

Response	Explanation and action
ERROR: Carrier XXX is currently not provisioned. INFO: Carrier previously in context will remain in context. SPM 5 STM1RM 0 STM1M 0 SPM 5 0:Name MYSTM1M	The carrier specified by name in a SetCarr command is not provisioned. The system displays the carrier previously in context; this carrier remains in context. Use the SetCarr command with the appropriate parameters to specify a provisioned carrier.
ERROR: Carrier <carrier name> is currently not provisioned. INFO: Carrier previously in context will remain in context. SPM 5 STM1RM 0 STM1M 0 SPM 5 0:Name MYSTM1M	The user issued a SetCarr command containing the NAME keyword and an invalid carrier name. The carrier previously in context remains in context. Use the SetCarr command with a valid carrier name.
ERROR: Carrier SPM 63 179 is currently not provisioned. INFO: Carrier previously in context will remain in context. SPM 5 STM1RM 0 STM1M 0 SPM 5 0:Name MYSTM1M	The carrier specified by its SPM number and circuit identifier in a SetCarr command is not provisioned. The system displays the carrier previously in context; this carrier remains in context. Use the SetCarr command with the appropriate parameters to specify a provisioned carrier.
INFO: Carrier previously in context will remain in context. SPM 5 STM1RM 0 STM1M 0 SPM 5 0:Name MYSTM1M	The user aborted the entry of parameters to the SetCarr command. The system displays the carrier previously in context; this carrier remains in context. Use the SetCarr command with the appropriate parameters to put a new carrier in context.

Examples

To determine which carrier is currently in context, enter the following command:

```
>SETCARR

SPM 5   VC4P 1   VC12P 2

This Carrier is currently not provisioned.
```

To select a provisioned carrier by specifying a carrier name, enter the following command:

```
>SETCARR NAME RICHVC12P

SPM 5  VC4P 1   VC12P 2

SPM 5  4 : Name RICHVC12P
```

To select a provisioned carrier by specifying it SPM number and circuit identifier, enter the following command:

```
>SETCARR SPM 5 4 (or SETCARR SPM 5 CKT 4)

SPM 5  VC4P 1   VC12P 2

SPM 5  4 : Name RICHVC12P
```

To select a carrier (provisioned or not provisioned) by specifying its payload position, enter the following command:

```
>SETCARR SPM 5 VC12P 2

SPM 5  VC4P 1   VC12P 2

This Carrier is currently not provisioned.
```

SPMCEMDIR level

This chapter describes the syntax, purpose, and semantics of the SPMCEMDIR commands for the Spectrum peripheral module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMCEMDIR commands are as follows:

- Bsy
- ListAlm
  - — for BRISC
  - — for SuperNode
- ListSet
- LoadMod
- Next
- OffL
- Prot
- QueryMod
- Quit
- Rts
- Select
- Tst
- Transl

To access the directory

To access the SPMCEMDIR directory, enter one of the following commands:

```
>mapci;mtc;pm;post spm <node_no>;select cem <unit_no>
```

or

```
>mapci;mtc;pm;post spm <node_no>;select cem all
```

or

```
>mapci;mtc;pm;post spm <spm number> (0 to 63);select cem
<cem_number> (0 to 1)
```

This is an example of the command:

```
>mapci;mtc;pm;post spm 3;select cem 0
```

To return to CI

```
>quit all
```

CEM screen

The following figure shows the common equipment module (CEM) screen.

```
   CM      MSN     IOD      Net      PM      CCS      Lns      Trks     Ext      APPL
    .       .       .        .       .        .        .        .       .        .



SPM                                  SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                    3       0       6       0      10       0
 2               SPM                   1       0       2       0       2       0
 3 ListSet       CEM                   2       0       0       0       0       0
 4
 5             SPM    3  CEM 0  Act  INSV
 6 Tst         Loc: Row E  FrPos 8  ShPos 24  ShId 0  Slot 7  Class: DMSCP
 7 Bsy         Default Load: CEM0011
 8 RTS         Clock:
 9 OffL        Input Ref: Internal  Source STM 0   Current mode: Sync
10 LoadMod
11
12 Next
13 Select_
14 QueryPM
15 ListAlm
16 Prot
17 SPERFORM
18

   14:12 >
```

The fields Input Ref, Source, and Current Mode provide synchronization information for the CEM.

- Input Ref - the synchronization configuration. Values are:
  - — Internal - synchronized to the C-side link (DS512) connected to the ENET.
  - — Loop - loop timing from teh active STM-1 resource module (RM).
  - — Mate - synchronized to the active CEM via the inter-CEM synchronization signal.
- Source - the synchronization source. Values and their meanings are as listed in the following table.

Table 22-29

Source	Input Ref	Device name
CEM X LK 1	Internal	C-side link 1
CEM X LK 2	Internal	C-side link 2
CEM X LK 3	Internal	C-side link 3
CEM X LK 4	Internal	C-side link 4
CEM Y LK 1	Internal	C-side link 1
CEM Y FP	Mate	System frame pulse over inter-CEM synchronization signal
OC-3 0	Loop	OC-3 unit 0
OC-3 1	Loop	OC-3 unit 1 ***Note:*** OC-3 does not apply to multi-market platform (MMP) releases
STM 0	Loop	STM-1 unit 0
STM 1	Loop	STM-1 unit 1

Note: Two examples illustrate the use of the source values. If CEM 1 is displayed and is inactive, its source is shown as CEM 0 FP. If CEM 0 is

displayed and is active, and all the C-side links are unable to provide a synchronization source, its source is shown as CEM 1 LK 1.

- Current Mode - the state of the CEM synchronization. Values are:
  - — Acquire. This mode permits rapid variation of the output signals to quickly establish phase-lock with a reference source. Rapid variation of the output signals is not acceptable in Sync mode.
  - — Holdoer. This mode is used when no valid reference source is available. It uses a constant synchronization value which approximates to the operating frequency of the reference source before it became unavailable.
  - — Sync. This mode phase-locks the clock output signals to the active reference input.

SELECT

Purpose

The Select command selects a specified module (circuit pack) in the Spectrum peripheral module (SPM) and displays the screen for the selected module. This command is analogous to the Post command, which can be executed from the PM level or from the screen of one of the posted PMs. Similarly, the Select command can be executed from the SPM screen or from one of the selected modules (circuit packs CEM, DSP, STM-1 and so on).

Command type

Menu

Command target

SuperNode and BRISC

Command availability

Residential enhanced service (RES)

Command syntax

The Select command syntax is as follows.

```
SELECT: Select specified CPKs for maintenance

Parms: [<All CPKs> {AllCPKs}]

       [<All> {All}]

       [<UNIT? ... {0 to 27}]

       [<CPK Type>...{CEM [<All> {All}]

                          [<UNIT>... {0 to 1}],

                      DSP [<All> {All}]

                          [<UNIT>... {0 to 27}],

                      OC3 [<All> {All}]

                          [<UNIT>... {0 to 1}],

                      STM [<All> {All}]

                          [<UNIT>... {0 to 1}],

                      VSP [<All> {All}]
```

```
                                        [<UNIT>... {0 to 27}]}]
```

Parameters

The following table describes the parameters.

Table 22-30

Parameter	Value	Description
CPK Type	CEMDSPOC3STMVSP	Common equipment moduleDigital signal processorOptical carrier 3Synchronous transfer mode 1Voice signal processor
Unit	0 to 10 to 27	CEM, OC3, STMDSP, VSP

MAP responses

The following are responses to this command:

Table 22-31

Response	Explanation and action
`The CEM, DSP, OC3, STM, or VSP screen displays in response to the command.`	Depending on the parameters used with the Select command, the system selects one or more modules, and displays the first module in the set. The user can view the contents of the Select set using the command ListSet.The Next command displays the next module in the set. If more than one type of CPK is selected (for example, Select DSP all STM all) the system creates the Select set in the order CEM, OC3, STM, DSP, VSP, regardless of the order specified in the Select command.
`EITHER incorrect optional parameter(s)OR too many parameters.Failed to create Select set`	The Select command is used with invalid parameters, for example, Select CEM, Select CEM 2, Select DSP 99.

Examples

The following are examples of the Select command.

```
>Select CEM 0

>Select VSP 9

>Select DSP all

>Select allcpks
```

```
>Select CEM all STM 0 DSP 0
```

SPMTKCNV level

This chapter describes the syntax, purpose, and semantics of the SPMTKCNV commands for the Spectrum peripheral module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The SPMTKCNV commands are as follows:

- Bsy
- Convert
- CvCarr
- Display
- Hold
- Next
- Post
- Quit
- Rts
- Swap
- Undo

ATTENTION

Refer to Chapter, “TTP directory," for detailed information about the Level SPM command.

To access the directory

To access the SPMTKCNV directory, enter one of the following commands:

```
>mapci;mtc;trks;ttp;spmtkcnv
```

or

```
>mapci;mtc;trks;ttp;level spmtkcnv
```

or

```
>mapci;mtc;trks;ttp;level spm
```

To return to CI

```
>quit all
```

SPMTKCNV screen

The following figure shows an example of the SPMTKCNV screen.

```
  CM      MSN    IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
 CM Flt   SysB   1IOCOS  5CdPr   2SysB  1   Rs           1 CC   1Crit
   M        M      M       *C*     *C*   *C*              *C*    *C*



SPM                    POST          DELQ             BSYQ      DIG
 0 Quit                TTP 17-0004
 2 Post_               CKT TYPE       PM NO.           COM LANG  STA S R  DOT  TE RESULT
 3
 4
 5 Bsy
 6 Tst                 CARR:                                    CARR2:
 7                     12345678901234567890123456789012 -> 12345678901234567890123456789012
 8
 9
10
11 Hold
12 Next
13
14 Convert_
15 Display_
16 Swap
17 CvCarr_
18 Undo_

   14:12 >
```

Additional information

The commands at the SPMTKCNV level monitor and change trunk provisioning. Any lower level command can be entered from the SPMTKCNV level.

The SPMTKCNV level commands perform the following functions:

- Move the posted trunk member to another location and return the trunk to service in the new location. The trunk location refers to the PM name and number followed by the digital equipment number of the DS1 or PCM30 carrier circuit accomodating the trunk. This is followed by the time slot

number on teh circuit. When moving the trunk member, it subgroup number can also be changed.

- Display carrier occupancy information, that is, the trunks that reside in the 24 time slots of a DS1 carrier circuit or in the 31 time slots of a PCM30 carrier circuit. Two carrier circuits can be displayed at the same time in the origination and destination display positions. The naming of the display positions refers to the trunk migration direction when moving them from one carrier ontoo another. Origination can be swapped with destination at any time using the Swap command.
- Move all trunks from the origination carrier-which is the carrier circuit displayed in the origination display position on the TTP MAP-to new locations on the destination carrier. The desination carrier is the carrier circuit displayed in the destination position in the TTP MAP window.
- Reverse the action described in the previous bullet.

The trunk relocation functionality at the SPMTKCNV level is an automated method of trunk members datafilling the changes in table TRKMEM.

Level specific commands at SPMTKCNV level are described in the following table.

Table 22-32 (Sheet 1 of 3)

Menu item	Command	Description
0	Quit	The quit command causes the system to leave the current level and return to the lower MAP level from which the command >LEVEL SPMTKCNV was issued
2	Post_	The Post command posts one or more circuits for maintenance.
3,4		Not used
5	Bsy	The Bsy command busies the circuit in the control position.
6	Rts	The Rts command returns to service the circuit in the control position.
7 to 10		Not used
11	Hold	
12	Next	The Next command places the next circuit (next in the posted set of circuits) in the control position.

Table 22-32 (Sheet 2 of 3)

Menu item	Command	Description
13		Not used
14	Convert_	The Convert command moves the trunk that is in the posted position into a new location, as defined by command parameters 2, 3, 4, and 5. The first parameter defines a new trunk subgroup number. the circuit is posted again in its new location and returned to service or to its previous busy state.
15	Display_	The Display command displays information about time slot occupancy on the given carrier, which is the carrier circuit defined by the command parameters 2, 3, and 4. The first command paramter defines the MAP display position 1 or 2.
16	Swap	The Swap command swaps destination with origination and reverses the direction of the displayed arrow. The arrow direction is relevant for the command CvCarr, which moves trunks from the origination to the destination.

Table 22-32 (Sheet 3 of 3)

Menu item	Command	Description
17	CvCarr_	The CvCarr command migrates trunks from the displayed origination carrier into new locations on the displayed destination carrier. The free locations on the destination carrier are occupied in the order of increasing slot number. If the destination carrier does not have enough free slots, the screen displays a warning.
18	Undo_	The Undo command reverses the action of the latest Convert or CvCarr command. Each action can be undone at any time. The Undo parameters provide the following Undo options: • >undo con - reverses the latest >con • >undo cvc - reverses the latest >cvc • >undo new - reverses the latest >con or >cvc The >undo new command moves back the N trunks displayed bythe Convert or CvCarr commands (where N = new, just moved, trunk)

CONVERT

Purpose

The Convert command converts the posted trunk to the trunk member defined by the command's parameters. Before conversion the trunk must be in the manual busy (MB) or in-service busy (INB) state. The command posts the new trunk member and puts it into the same state as previously, MB or INB.

Before conversion, the Convert command checks whether the trunk can be converted. The conversion must not be performed on trunks seized manually or seized by call processing. The conversion cannot be performed if the trunk is not equipped (already removed from its location), if the new location defined by the user is occupied by another trunk member, or if the trunk is in any state other than MB or INB. The system takes no action if the conversion should not or cannot be performed; the MAP display shows a Warning response.

Command type

Menu

Command target

SuperNode

Command availability

Non-RES (residential enhanced service)

Command syntax

The Convert command syntax is as follows.

```
convert

The command converts the posted trunk to trunk specified by the
parameters.

Parms: <SGRPNO> {0 TO 1}

       <PM and CARR> {DTC <DTCNO> {0 TO 511}

                          <DTCCKNTO> {0 TO 19},

                     SPM <SPMNO> {0 TO 63}

                          <SPMCKNTO> {0 TO 181},

                     DTCI <DTCINO> {0 TO 511}

                           <DTCICKNTO> {0 TO 19},
```

```
                                IDTC <PMNO> {0 TO 511}
                                     <PMCKNTO> {0 TO 19},
                                TDTC <PMNO> {0 TO 511}
                                     <PMCKNTO> {0 TO 19},
        <SLOT> {1 TO 31}
```

Parameters

The following table describes the parameters.

Table 22-33

Parameter	Value	Description
SGRP_NO	0, 1	Trunk subgroup number
PM_TYPE	DTC, SPM, DTCI, IDTC, TDTC	PM type
EXT_PMNO	Value depends on PM_TYPE	External peripheral module number
CARR	Value depends on PM_TYPE	Carrier circuit number
TIME SLOT	1 to 31	Time slot number

MAP responses

The following are responses to this command.

Table 22-34 (Sheet 1 of 4)

Response	Explanation and action
>con Next par is: <SGRPNO> {0 TO 1} Enter: <SGRPNO> <PM and CARR> <SLOT> > 0 Next par is: <PM and CARR> {DTC <DTCNO> {0 TO 511} <DTCCKTNO> {0 TO 19}, SPM <SPMNO> {0 TO 63} <SPMCKTNO> {0 TO 181}, DTCI <DTCINO> {0 TO 511} <DTCICKTNO> {0 TO 19}, IDTC <DEQNO> {0 TO 511} <IDTCCKTNO> {0 TO 19}, TDTC <DEQNO> {0 TO 511} <TDTCCKTNO> {0 TO 19}} Enter: <PM and CARR> <SLOT> >dtc 1 14 Next par is: <SLOT> {1 TO 31} Enter: <SLOT> > 2 Conversion OK.	A trunk was posted and the command was issued with valid parameters added successively at the system requests.
>con Trunk moved. or Trunk moved. ERROR: Trunk not re-posted. or ERROR: Trunk stays INB. or ERROR: Trunk lost CIC when moving! Check swerr logs.	Check swerr logs.

Table 22-34 (Sheet 2 of 4)

Response	Explanation and action
S/W error. Trunk conversion failed.	Check swerr logs.
>con 0 >abort No action taken.	If an incomplete Convert command is entered, the system replies by listing the next parameters to be entered. If aborted, no action is taken.
>con 1 dtc 0 14 2 WARNING: You alter trunk subgroup no. Continue? y/n y SUBGROUP DATA NOT FILLED YET Trunk conversion failed.	While posting a trunk, the user typed subgroup number 1, but the posted trunk had the subgroup number 0. If y is entered, the trunk subgroup number of 1, which was the first command parameter, is not accepted. Datafill TRKSGRP table before converting the trunk to subgroup 1.
n	If n is entered, the system takes no other action.
>con 0 dtc 5 1 2 Peripheral does not exist Trunk conversion failed.	An attempt was made to post a trunk, but the carrier DTC 5 1 does not exist.
>con 0 dtc 0 19 1 Carrier is not equipped Trunk conversion failed .	An attempt was made to post a trunk, but the carrier DTC 0 19 is not equipped.
>con 0 dtc 0 13 1 TRUNK ALREADY DATAFILLED. Trunk conversion failed.	An attempt was made to post a trunk, but the trunk location dtc 0 13 1 is not free. This means the trunk circuit dtc 0 13 1 is datafilled with another trunk.

Table 22-34 (Sheet 3 of 4)

Response	Explanation and action
`No action taken: no trunk posted, or no trunk deleted.`	No trunk is posted (because it is unknown or cannot be moved) or the posted trunk was removed from its carrier location and remains posted as NEQ (which means it cannot be moved from an already empty location).
`No action taken: trunk seized by another user or CallP busy.`	The posted trunk has been seized by a third party and cannot be manipulated by the user.

`Trunk conversion failed.`
 	
`You may clear the 'failed' info (F) by re-displaying carrier.`
 	
`The F info does not alter commands execution.`
	When the posted trunk displays on a carrier and Convert failed on that trunk, the system updates the display by putting an F in the appropriate spot on the screen. The two system messages inform the user how to deal with the F-info.

`CIC not assigned.`	The posted trunk is not datafilled in table C7TRKMEM, which assigns CICs to trunks. The converted trunk will not have a CIC.

`>con 0 dtc 0 14 24`
`Trunk moved.`
 	
`POSTED CKT IDLED`
`SHORT CLLI IS: LOOPC`
`OK, ALL BSYQ IS SET IN POST SET`
	The posted trunk is converted. The three messages that follow are TTP messages generated when a trunk is posted again. Those messages should be removed from the TTP messaging flow once the SPMTKCNV level is entered. However, this task requires input/output functions to be rewritten.

Table 22-34 (Sheet 4 of 4)

Response	Explanation and action
>post d dtc 0 14 >con 0 dtc 0 8 24 Warning: Posted Set has been truncated to 10 members. POSTED CKT IDLED SHORT CLLI IS: LOOPC OK, ALL BSYQ IS SET IN POST SET	The warning means that the Post command created a trunk set having more than 10 elements. The Convert command truncated the set to 10 elements. The 9 iterations of the TTP map NEXT command works as if no Convert command had been issued. However, the 10th iteration will signal an empty trunk set.
>con Command disabled.	The command cannot be executed due to an office memory/resources problem already signaled when the user was entering the level.
>con ERROR: Posted member data error.	An application returned a bad code. Check software error logs.
An origination trunk in time slot 1 cannot be mapped; destination time slot is already occupied.Continue anyway?Please confirm (YES, Y, NO, or N):	An attempt was made to convert a 25th PCM30 trunk from a PDTC to an SPM with only 24 DS1 time slots. Type N to cancel.
WARNING: Command CONVERT is intended to be used for INB or MB trunk states.	The Convert command cannot convert the trunks because they are not in the INB or MB state. The user must busy the trunks first, then perform the conversion.

Examples

The user interface for the Convert command includes screen updates and additional information if the posted trunk is on a displayed carrier. The possible display/message additional information is described in the DISPLAY command description and in the examples that follow.

For DS1 carrier circuits (which support only 24 time slots) “x" characters in the MAP display indicate the unsupported time slots.

Example 1

Enter the following:

```
>con 0 spm 1 5 6
```

The system displays the following screen.

```
CKT TYPE      PM NO.   COM LANG    STA S R  DOT TE  RESULT
2W S7 S7 SPM 1 5 6 SPMOG    0  IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: SPM 1 5   (3 trk)            CARR2:  DTC  0 17  (21 slot)
  9            12345678901234567890123456789 -> 12345678901234567890123456789
 10            *---*N-----------------xxxxxxx    *-**-------------------xxxxxxx
 11 Hold
 12 Next
 13
 14 Convert_   con 0 spm 1 5 6
 15 Display_   Conversion OK.
 16 Swap       POSTED CKT IDLED
 17 CvCarr     HORT CLLI IS: SPMOG
 18 Undo       ALL BSYQ IS SET IN POST SET

  TEAM0
 Time 11:18  >
```

Example 2

Enter the following:

```
>con 0 spm 1 5 5
```

The system displays the following screen.

```
CKT TYPE      PM NO.   COM LANG    STA S R  DOT TE  RESULT
2W S7 S7 DTC 0 17 5      SPMOG    0  IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: SPM 1 5   (2 trk)           CARR2:  DTC  0 17  (20 slot)
  9            12345678901234567890123456789012 -> 12345678901234567890123456789012
 10            *---*------------------xxxxxxx    *-**F------------------xxxxxxx
 11 Hold
 12 Next
 13
 14 Convert_   con 0 spm 1 5 5
 15 Display_   TRUNK ALREADY DATAFILLED.
 16 Swap       Failed to update TRKMEM tuple...
 17 CvCarr     You may clear the 'failed' info (F) by redisplaying carrier(s).
 18 Undo       The F info does not alter commands execution.

  TEAM0
 Time 11:18  >
```

The next two examples show conversions for use in normal DMS offices.

Example 3

To convert a DS1 carrier on a DTC to a DS1 carrier on an SPM, enter the following:

>con 0 spm 40 4 1

The system displays the following screen.

```
CM Flt  SysB  1IOCOS  2CSLk  1 SPM  1 RS  .   7 CC  1Crit  .
 M      M     M      M    *C*      *C   *C
SPMTKCNV
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: DTC 1 5   (24 trk)           CARR2:  T1 SPM  40 4  (24 slot)
  9            12345678901234567890123456789O1 -> 12345678901234567890123456789O1
 10            *---*N-----------------xxxxxxx    *-**-------------------xxxxxxx
 11 Hold
 12 Next
 13
 14 Convert_
 15 Display_
 16 Swap
 17 CvCarr
 18 Undo
  B
 Time 12:11  >
```

Example 4

To convert a PCM30 carrier on a PDTC to a PCM30 carrier on an SPM, enter the following:

>con 0 spm 40 4 1

The system displays the following screen.

```
CM Flt  SysB  1IOCOS  2CSLk  1 SPM  1 RS  .   7 CC  1Crit  .
 M      M     M       M     *C*      *C   *C
SPMTKCNV
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: PDTC 1 5  (31 trk)           CARR2: E1 SPM  40 4  (31 slot)
  9            12345678901234567890123456789012 -> 12345678901234567890123456789012
 10            ******************************    --------------------------------
 11 Hold
 12 Next
 13
 14 Convert_
 15 Display_
 16 Swap
 17 CvCarr
 18 Undo
  B
 Time 12:11  >
```

The last two examples show conversions which can be required in gateway offices.

Example 5

To convert a DS1 carrier on a DTC to a PCM30 carrier on an SPM, enter the following:

```
>con 0 spm 40 4 1
```

The system displays the following screen.

```
CM Flt  SysB  1IOCOS  2CSLk  1 SPM  1 RS  .   7 CC  1Crit  .
 M      M     M       M     *C*      *C   *C
SPMTKCNV
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: DTC 1 5  (24 trk)            CARR2: E1 SPM  40 4  (31 slot)
  9            12345678901234567890123456789 -> 12345678901234567890123456789
 10            ************************xxxxxxx    -------------------------------
 11 Hold
 12 Next
 13
 14 Convert_
 15 Display_
 16 Swap
 17 CvCarr
 18 Undo
  B
 Time 12:11  >
```

Example 6

To convert a PCM30 carrier on a PDTC to a DS1 carrier on an SPM, enter the following:

>con 0 spm 40 4 1

The system displays the following screen.

```
CM Flt  SysB  1IOCOS  2CSLk  1 SPM  1 RS  .   7 CC  1Crit  .
 M      M     M       M    *C*      *C   *C
SPMTKCNV
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7            CARR1: PDTC 1 5  (31 trk)           CARR2: T1 SPM  40 4  (24 slot)
  9            12345678901234567890123456789 -> 12345678901234567890123456789
 10            ******************************    ------------------------xxxxxxx
 11 Hold
 12 Next
 13
 14 Convert_
 15 Display_
 16 Swap
 17 CvCarr
 18 Undo
  B
 Time 12:11  >
```

CVCARR

Purpose

The CvCarr command moves thetrunks from the origination carrier into free slots in the same position on the destination carrier. The CvCarr parameters define the range of the trunks to move. The MAP display shows the trunks moved to the destination carrier as “N" characters.

The trunks to be moved must be in the (INB) or (MB) state. The CvCarr command leaves the new trunks in the (BSY INB) state.

Command type

Menu

Command target

SuperNode

Command availability

Non-RES (residential enhanced service)

Command syntax

The CvCarr command syntax is as follows.

```
cvcarr

Parms: <FIRST TIME SLOT> {1 TO 31}

       <LAST TIME SLOT> {1 TO 31}
```

Parameters

The following table describes the parameters.

Table 22-35

Parameter	Value	Description
FIRSTTIME SLOT	1 to 31	Number of the first time slot in the range to move
LASTTIME SLOT	1 to 31	Number of the last time slot in the range to move

MAP responses

The following are responses to this command.

Table 22-36 (Sheet 1 of 2)

Response	Explanation and action
`Display both carriers, and try again.`	The user did not display carriers in both positions.
`No trunks to be moved. No action taken.`	The origination carrier has no trunks.
`No free space on the destination carrier. No action taken.`	All time slots on the destination carrier are datafilled with trunks.
`Only a part of trks can be moved. Continue? y/n`	The destination carrier insufficient time slots for all the trunks on the origination carrier. To move the trunks partially, enter “y". To take no action, enter “n".
`CIC not assigned for <number> trunk(s).`	Some trunks on the origination carrier are not datafilled in table C7TRKMEM (which defines the carrier information codes (CIC)). The system moves all trunks (with or without CIC) from the origination carrier to the destination carrier.
`WARNING: Conversion failed for <number> trunk(s); redisplay carriers to detect unexpected datafill and to clear the failed into F.`	Call processing or another user seized the trunk. The system cannot move the trunk or put it offline.
`ERROR: Software error occurred for the trunks displayed as E.`	A call processing error occurred at the Table Editor level.
`WARNING: Command CVCARR skips the trunks displayed.`	
`Command disabled.`	A memory allocation problem occurred when the SPMTKCNV level [?] started. Therefore the level cannot be used to change the database. The level can be used only to view carrier occupancy with trunks (DISPLAY command).
`ERROR: <number> trunk(s) lost CIC when moving! Check swerr logs.`	Some trunks moved without errors. Other trunks produced the CIC error.
`WARNING: Backup for <number> trunk(s) failed; command UNDO is (partially) disabled.`	[?]

Table 22-36 (Sheet 2 of 2)

Response	Explanation and action
`Done.`	The trunks move from the origination carrier to the destination carrier. The system displays the new time slot occupancy on both carriers. The MAP display shows the trunks moved to the destination carrier as “N" characters.
`WARNING: Command CVCARR is intended to be used for INB or MB trunk states.`	The CvCarr command cannot move the trunks because they are not in the INB or MB state. The user must busy the trunks first, then perform the move.

`An origination trunk in time slot 1 cannot be mapped; destination time slot is already occupied.`
`Continue anyway?`
`Please confirm (YES, Y, NO, or N):`
	The user attempted to move a trunk to an occupied time slot on the destination carrier. Enter “YES" or “Y" to continue. Enter “NO" or “N" to cancel the move.

Example

At the TTP MAP level, enter any of the following commands:

```
>level spm

>dis 1 spm 1 5

>dis 2 dtc 0 17

>post g spmic
```

The system displays the following screen.

```
CKT TYPE      PM NO.     COM LANG     STA S R  DOT TE  RESULT
2W S7 S7      SPM  1 5 1 SPMIC 0      IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7           CARR1: SPM 1 5      (3 trk)        CARR2: DTC 0 17      (23 slot)
  9           12345678901234567890123456789 -> 12345678901234567890123456789
 10           **-*****----------------xxxxxxx    ---------***-----------xxxxxxx
 11 Hold
 12 Next
 13 ...
```

The origination carrier is CARR1 and the destination carrier is CARR2. SPM 1 5 and DTC 0 17 are both DS1 carrier circuits.

Enter the following command:

>cvc 1 5

The system displays the following screen.

```
CKT TYPE      PM NO.        COM LANG    STA S R  DOT TE  RESULT
2W S7 S7      SPM     1 5 1 SPMIC 0     NEQ
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7           CARR1: SPM 1 5   (0 trk)           CARR2: DTC 0 17    (20 slot)
  9           12345678901234567890123456789O1 -> 12345678901234567890123456789O1
 10           -----***----------------xxxxxxx    NN-NN----***------------xxxxxxx
 11 Hold
 12 Next
 13           Done.
```

DISPLAY

Purpose

The Display command displays information about time slot occupancy on a given carrier. The command displays the carrier in one of the two positions available on the SPMTKCNV level screen. The first command parameter specifies the MAP display position 1 or 2. Command parameters 2, 3, and 4 specify the carrier circuit required.

The displayed carrier shows the position of trunks in time slots as follows:

```
 CARR1:  SPM  1 5   (3 trk)         CARR2:
12345678901234567890123456789012 -> 12345678901234567890123456789012
-*--**------------------xxxxxxx
```

In the example, a DS1 carrier (SPM 1 5) displays in position 1. The time slot occupancy is:

- three occupied time slots, in positions 2, 5, and 6. The “*" characters indicate occupied time slots.
- 21 free time slots, in positions 1, 3, 4, and 7 to 24. The “-" characters indicate free time slots.
- seven unsupported time slots, in positions 25 to 31. The “x" characters indicate unsupported time slots. Time slots 25 to 31 are for PCM30 carrier circuits only.

Command type

Menu

Command target

SuperNode

Command availability

Non-RES (residential enhanced service)

Command syntax

The Display command syntax is as follows.

```
The command displays time slot occupancy on a given carrier.

The following conventions are used:

* : a trunk in this location
```

```
- : a free slot

N : a new trunk, just moved into this location

F : command failed to move trunk from here

E : an error occurred when processing this location

x : an unsupported slot

Parms: <POSITION> {1 TO 2}

       <PM and CARR> {DTC  <DTCNO> {0 TO 511}
                           <DTCCKTNO> {0 TO 19},
                     SPM   <SPMNO> {0 TO 63}
                           <SPMCKTNO> {0 TO 181},
                     DTCI  <DTCINO> {0 TO 511}
                           <DTCICKTNO> {0 TO 19},
                     IDTC  <DEQNO> {0 TO 511}
                           <IDTCCKTNO> {0 TO 19},
                     TDTC  <DEQNO> {0 TO 511}
                           <TDTCCKTNO> {0 TO 19}}
```

Parameters

The following table describes the parameters.

Table 22-37

Parameter	Value	Description
POS	1, 2	Display position
PM_TYPE	DTC, SPM, DTCI, IDTC, TDTC	PM type
EXT_PMNO	Value depends on PM_TYPE	External peripheral module number
CARR	Value depends on PM_TYPE	Carrier circuit number

MAP responses

The following are responses to this command.

Table 22-38

Response	Explanation and action
`Peripheral does not exist.` `No action taken.`	The entered peripheral (for example DTC 5) does not exist.
`Carrier is not provisioned.` `No action taken.`	The carrier is not provisioned.
`Carrier class “Without Trunks".` `No action taken.`	The carrier class is “without trunks".
`S/W error.` `Displaying another carrier is ok.`	The system generated a software error report. The user can display another carrier.
No action taken.	An application failed without any explanation.
`Done.`	A successful execution of the command. The specified carrier displays in the required display position.

Examples

Enter the following:

```
>post g spmic
```

The system displays the following screen.

```
CKT TYPE      PM NO.      COM LANG    STA S R  DOT TE  RESULT
2W S7 S7      SPM   1 4 1 SPMIC 0     IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7           CARR1:                              CARR2:
  9     12345678901234567890123456789012 -> 12345678901234567890123456789012
 10
 11 Hold
 12 Next
 13 ...
```

Enter the following:

>dis 2 spm 1 4

If SPM 1 4 is a PCM30 carrier circuit, the system displays the following screen.

```
CKT TYPE      PM NO.       COM LANG     STA S R  DOT TE  RESULT
2W S7 S7      SPM    1 4 1 SPMIC 0      IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7           CARR1:                              CARR2: SPM 1 4 (30 slot)
  9           123456789012345678901 -> 123456789012345678901
 10           **-*-------------------------    *------------------------------
 11 Hold
 12 Next
 13 ...
```

Enter the following:

>dis 1 dtc 0 17

If DTC 0 17 is a DS1 carrier circuit, the system displays the following screen.

```
CKT TYPE      PM NO.  COM LANG      STA S R  DOT TE  RESULT
2W S7 S7      DTC 0 17 24 SPMIC 0   IDL
  0 Quit
  2 Post_
  3
  4
  5 Bsy
  6 Rts
  7           CARR1: DTC 0 17   (3 trk)          CARR2: SPM 1 4  (30 slot)
  9           123456789012345678901 -> 123456789012345678901
 10           **-*--------------------xxxxxxx    *------------------------------
 11 Hold
 12 Next
 13 ...
```

SWAP

Purpose

The Swap command reverses the direction of the displayed arrow and exchanges the origination and destination information.

The carrier display changes because the origination carrier and the destination carrier show different information:

- the origination carrier information shows the number of trunks
- the destination carrier information shows the number of free time slots

Command type

Menu

Command target

SuperNode

Command availability

Non-RES (residential enhanced service)

Command syntax

The Swap command syntax is as follows.

```
swap
```

Parameters

None

MAP responses

The displayed arrow changes direction. The origination carrier information and the destination carrier information change position, as shown in the following example. There are no error or warning messages.

Example

The example shows an initial MAP display for SPM 1 4 (a PCM30 carrier circuit) and DTC 0 17 (a DS1 carrier circuit).

```
 6 Rts
 7            CARR1: SPM 1 4   (2 trk)           CARR2:  DTC 0 17  (20 slot)
 9            12345678901234567890123456789012 -> 12345678901234567890123456789012
10            *---*--------------------------    *-**N-------------------xxxxxxx
11 Hold
12 Next
13
14 Convert_
...
```

Enter the following command:

>swap

The system displays the following screen.

```
 6 Rts
 7            CARR1: SPM 1 4   (29 slot)         CARR2:  DTC 0 17  (4 trk)
 9            12345678901234567890123456789012 <- 12345678901234567890123456789012
10            *---*--------------------------    *-**N-------------------xxxxxxx
11 Hold
12 Next
13
14 Convert_ Swap
...
```

23 Introduction to SPM non-menu commands

SPM non-menu commands

This chapter describes the syntax, purpose, and semantics of the Spectrum Peripheral Module (SPM) non-menu commands. The commands are listed in an alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

Non-menu commands are also called command interpreter (CI) commands or hidden commands because they are not displayed on the menu command display area.

To access non-menu commands

Non-menu commands are available from the CI level of the MAP display. Depending on a each command, they are also available from directory levels, such as SPMCEMDIR, SPMDSPDIR, SPMVSP, SPMATMDIR, and SPMDLCDIR directories. For example, the non-menu command, SPMXMSG, is available from the CI level as well as directory levels.

24 SPM DS12 message channel reconfiguration commands

Before SP12, dual-shelf configuration was necessary to avoid a possible isolation condition in a single-shelf configuration. In a single-shelf configuration, if either plane of the ENET had a failure or was taken out of shelf, the common equipment module (CEM) connected to it was isolated from the computing module (CM), resulting in a CEM switch of activity (SWACT).

To prevent isolation and the resultant CEM SWACT, SPM DS12 message channel reconfiguration allows a single-shelf ENET configuration by having each CEM send messages through both ENET planes. This reconfiguration is also allowed in the existing dual-shelf ENET planes.

To upgrade an existing SPM to have messaging channels crossover connections for each CEM connected either to a single-shelf ENET assembly or a dual-shelf ENET assembly, the following non-menu commands are available. The commands are listed in the order in which a user will execute them.

- SPMXMSG
- DISPLAY
- XOVER
- STRAIGHTEN
- XFOLLOWUP
- QUIT

Note: These commands are available from the CI level of the MAP display and also from most directory levels, such as SPMCEMDIR, SPMDSPDIR, SPMVSP, SPMATMDIR, and SPMDLCDIR directories.

SPMXMSG

Purpose

The SPMXMSG command sets and checks the SPM message channel crossover.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
SPMXMSGSPMXMSG:
```

Parameters

None

MAP responses

The following are responses to this command.

Table 24-1

Response	Explanation and action
SPMXMSG:	The user typed the “spmxmsg" command to enter the SPM crossover message channels. User action: enter the command you wish to execute, such as display, xover, straighten, xfollowup, or quit. System action: none

Example

The following is an example of this command.

```
>SPMXMSG

>SPMXMSG:
```

DISPLAY

Purpose

The DISPLAY command shows the status of the SPM messaging channels and the computing equipment module (CEM) product engineering codes (PECs).

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of the command syntax.

```
DISPLAY

SPM_NO      XOVER_MSG    CEM0        CEM1

-----------------------------------------

4               N        NTLX82AA    NTLX82AA

5               N        NTLX82BA    NTLX82BA
```

Parameters

None

MAP responses

The following is the response to this command.

Table 24-2

Response	Explanation and action
SPM_NO XOVER_MSG CEM0 CEM1 --- 4 N NTLX82AA NTLX82AA 5 N NTLX82BA NTLX82BA	The map displays the status of all SPM message channels. User action: none System action: none

Example

The following is an example of this command.

```
>DISPLAY

SPM_NO    XOVER_MSG    CEM0       CEM1

-------------------------------------------------

  4            N      NTLX82AA   NTLX82AA

  5            N      NTLX82BA   NTLX82BA
```

XOVER

Purpose

The XOVER command upgrades an existing SPM with the messaging channels crossover.

ATTENTION

Execute this command only when performing the SPM cross-over link upgrade procedure. If you alter the status of an SPM when the upgrade procedure is unnecessary, this command can degrade the service on the associated SPM.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
xover <spm number> {0 To 63}
```

Parameters

The parameter is described in the following table.

Table 24-3

Parameter	Value	Description
spm_number	0 to 63	The field indicates the spm number that the user enters to complete the Xover command.

MAP responses

The following table describes the responses to this command.

Table 24-4 (Sheet 1 of 3)

Response	Explanation and action

`You are attempting to crossover the message channels on SPM 4`
 	
`The following 4 xover ports must be MBSY before continuing:`
 	
`ms 0, card 12, port 63 = ENET 0 3 29 03, SPM 54 CEM 0 Lnk 4, status = OK`
 	
`ms 0, card 13, port 63 = ENET 1 3 29 03, SPM 54 CEM 1 Lnk 4, status = OK`
 	
`ms 1, card 10, port 29 = ENET 0 2 30 01, SPM 54 CEM 0 Lnk 2, status = OK`
 	
`ms 1, card 11, port 29 = ENET 1 2 30 01, SPM 54 CEM 1 Lnk 2, status = OK`
 	
`The following 4 straighten ports must be OK before continuing:`
 	
`ms 0, card 10, port 29 = ENET 0 2 30 00, SPM 54 CEM 0 Lnk 1, status = OK`
 	
`ms 0, card 11, port 29 = ENET 1 2 30 00, SPM 54 CEM 1 Lnk 1, status = OK`
 	
`ms 1, card 12, port 63 = ENET 0 3 29 02, SPM 54 CEM 0 Lnk 3, status = OK`
 	
`ms 1, card 13, port 63 = ENET 1 3 29 02, SPM 54 CEM 1 Lnk 3, status = OK`
 	
`Please confirm (“YES", “Y", “NO", or “N"):`
 	
If the user selects “YES" or “Y," the following responses occur:
	This response indicates the user attempted to crossover the message channels on an SPM.
	
	User action: select YES to continue or NO to discontinue the command.
	
	System action: none

`Reconfiguration of the following SPM failed: 4`	This response indicates that the reconfiguration of the SPM 4 failed. User action: contact your next level of support. System action: none.

Table 24-4 (Sheet 2 of 3)

Response	Explanation and action
Reconfiguration of the following SPM succeeded: 4 Please remember to ManB the cross-over MS ports, and continue with the rest of the MOP.	This response confirms that the SPM 4 message channels reconfigured successfully. User action: manually busy the cross-over MS ports and proceed with the method of procedure (MOP) to upgrade SPM 4. System action: none.
The following Xover MS port needs to be MBSY before continuing. ms 0, card 12, port 63, status = OK Command aborted.	This response indicates the user must ManB MS port before performing the crossover upgrade. User action: manually busy the specified MS port. System action: none.
The following Xover MS port needs to be OK before continuing. ms 0, card 10, port 29, status = SYSB Command aborted.	This response indicates the user attempted to RTS the SysB MS port before performing the crossover upgrade. User action: return to service the specified MS port before performing this command. System action: none.
The CEM card NTLX63AA does not support XOVER. For more information, consult the SPM crossover link upgrade procedure or contact your next level of support.	This response indicates the user currently has the NTLX63AA CEM card and must upgrade to NTLX82AA CEM card to support this command. ***Note:*** Remember that message channel crossover function is only available on the NTLX82AA CEM card or above. User action: upgrade both CEM cards to NTLX82AA. System action: none. ***Note:*** The NTLX63AA CEM is not compatible with SP15.

Table 24-4 (Sheet 3 of 3)

Response	Explanation and action
`Message channels are already crossed over on SPM 4.`	This response indicates the user attempted to use this command on an SPM already upgraded to crossover. User action: none. System action: none.

`Reconfiguration of the following SPM succeeded: 4`
Please remember to ManB the cross-over ports, and continue with the rest of the MOP.
`The following MS Port has been relocated:ms 0, card 10, port 10, status = SYSB`
PLEASE REMEMBER to do XFOLLOWUP after finishing the MOP.
	This response confirms the user successfully reconfigured the SPM 4 message channels. It also indicates the MS ports have been relocated.
	User action: manually busy the cross-over MS ports and proceed with the MOP to upgrade the SPM 4; once MOP completes, type XFOLLOWUP 4 under the SPMXMSG CI command.
	System action: none.

If the user selects “NO" or “N," the following response occurs:	
`Command aborted.`	This response indicates the user aborted this command because the user did not want to crossover the SPM message channels. User action: none. System action: none.

Additional responses

The following are additional responses to this commands.

Table 24-5

Response	Explanation and action
`This command is disabled until the xover patch is applied. For more information, please consult the SPM cross-over link upgrade procedure or contact your next level of support.`	This response indicates the CI command is disabled. User action: none. System action: none.
`The following Xover MS port needs to be MBSY before continuing.ms 0, card 12, port 63, status = OKCommand aborted.`	This response indicates the SPM and the corresponding MS ports that the user attempted to cross over do not meet the requirements. User action: manually busy the MS port. System action: none.

Example

The following is an example of the command.

```
>xover 4

>Y
```

STRAIGHTEN

Purpose

The STRAIGHTEN command is used to straighten the SPM messaging channels.

> **ATTENTION**
> Execute this command only when performing the SPM cross-over link upgrade procedure. If you alter the status of the SPM when the upgrade procedure is unnecessary, this command can degrade the service on the associated SPM.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
straighten<spm_number> {0 TO 63}
```

Parameters

None

MAP response

The following table describes the responses to this command.

Table 24-6 (Sheet 1 of 2)

Response	Explanation and action
`You are attempting to straighten the message channels on SPM 4` `Please confirm (“YES", “Y", “NO", or “N"):`	This response indicates the user attempted to crossover the message channels on an SPM. User action: select YES to continue or NO to discontinue the command. System action: none.
If the user selects “YES" or “Y," the following responses occur:	
`Reconfiguration of the following SPM failed: 4`	This response indicates that the reconfiguration of the SPM 4 failed. User action: contact your next level of support. System action: none.
`Reconfiguration of the following SPM succeeded: 4` `Please remember to ManB the cross-over MS ports, and continue with the rest of the MOP.`	This response confirms that the SPM 4 message channels reconfigured successfully. User action: manually busy the cross-over MS ports and proceed with the method of procedure (MOP) to upgrade SPM 4. System action: none.

`The following Xover MS port needs to be MBSY before continuing.`
`ms 0, card 12, port 63, status = OK`
`Command aborted.`
	This response indicates the user must ManB MS port before performing the crossover upgrade.
	User action: manually busy the specified MS port.
	System action: none.

Table 24-6 (Sheet 2 of 2)

Response	Explanation and action

`The following Xover MS port needs to be OK before continuing.`
`ms 0, card 10, port 29, status = SYSB`
`Command aborted.`
	This response indicates the user attempted to RTS the SysB MS port before performing the crossover upgrade.
	User action: return to service the specified MS port before using this command.
	System action: none.

`Message channels are already straightened on SPM 4.`	This response indicates the user attempted to use this command on an already straightened SPM. User action: none. System action: none.

`Reconfiguration of the following SPM succeeded: 4`
Please remember to ManB the cross-over ports, and continue with the rest of the MOP.
The following MS Port has been relocated:ms 0, card 10, port 10, status = SYSB
`PLEASE REMEMBER to do XFOLLOWUP after finishing the MOP`
	This response confirms the user successfully reconfigured the SPM 4 message channels. It also indicates that the MS ports have been relocated.
	User action: manually busy the cross-over MS ports and continue with the MOP to upgrade SPM 4; once method of procedure (MOP) completes, type the XFOLLOWUP 4 under the SPMXMSG CI command.
	System action: none.

Additional responses

The following are additional responses to this commands.

Table 24-7

Response	Explanation and action
`This command is disabled until the xover patch is applied. For more information, please consult the SPM cross-over link upgrade procedure or contact your next level of support.`	This response indicates the CI command is disabled. User action: none. System action: none.

`The following Xover MS port needs to be MBSY before continuing.`
`ms 0, card 12, port 63, status = OK`
`Command aborted.`
	This response indicates the SPM and the corresponding MS ports that the user attempted to straighten do not meet the requirements.
	User action: manually busy the MS port.
	System action: none.

If the user selects “NO" or “N," the following response occurs:	
`Command aborted.`	This response indicates the Straighten command was aborted because the user did not want to crossover the SPM message channels. User action: none. System action: none.

Example

The following is an example of this command.

```
>STRAIGHTEN 4

> Y
```

XFOLLOWUP

Purpose

The XFOLLOWUP command resolves the MS ports relocation after the user successfully executes the XOVER and STRAIGHTEN commands.

> **ATTENTION**
> Execute this command only AFTER performing the SPM cross-over link upgrade procedure and adding the newly upgraded SPM into different ports. If you alter the status of the SPM when the upgrade procedure is unnecessary, this command can degrade the service on the associated SPM.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
xfollowup

<spm number> {0 To 63}
```

Parameters

The parameter is described in the following table.

Table 24-8

Parameter	Value	Description
spm_number	0 to 63	This field indicates the spm number that the user enters to complete the XOVER command.

MAP responses

The following table describes the responses to this command.

Table 24-9 (Sheet 1 of 2)

Response	Explanation and action

`The following 4 straighten ports must be MBSY before continuing:`
`ms 0, card 10, port 29 = ENET 0 2 30 00, SPM 54 CEM 0 Lnk 1, status = OK`
`ms 0, card 11, port 29 = ENET 1 2 30 00, SPM 54 CEM 1 Lnk 1, status = OK`
`ms 1, card 12, port 63 = ENET 0 3 29 02, SPM 54 CEM 0 Lnk 3, status = OK`
`ms 1, card 13, port 63 = ENET 1 3 29 02, SPM 54 CEM 1 Lnk 3, status = OK`
`The following 4 xover ports must be OK before continuing:`
`ms 0, card 12, port 63 = ENET 0 3 29 03, SPM 54 CEM 0 Lnk 4, status = OK`
`ms 0, card 13, port 63 = ENET 1 3 29 03, SPM 54 CEM 1 Lnk 4, status = OK`
`ms 1, card 10, port 29 = ENET 0 2 30 01, SPM 54 CEM 0 Lnk 2, status = OK`
`ms 1, card 11, port 29 = ENET 1 2 30 01, SPM 54 CEM 1 Lnk 2, status = OK`
`Please confirm (“YES", “Y", “NO", or “N"):`
	This response indicates the user is trying to crossover the message channels on an SPM.
	User action: select YES to continue or NO to discontinue the command.
	System action: none

If the user selects “YES" or “Y," the following responses occur:	
`Reconfiguration of the following SPM failed: 4`	This response indicates that the reconfiguration of the SPM 4 MS ports failed. User action: contact your next level of support. System action: none.

Table 24-9 (Sheet 2 of 2)

Response	Explanation and action
`Reconfiguration of the following SPM succeeded: 4` `Please remember to ManB the cross-over MS ports, and continue with the rest of the MOP.`	This response confirms that the SPM 4 MS ports relocated successfully. User action: manually busy the cross-over MS ports and proceed with the method of procedure (MOP) to bring all MS ports INSV. System action: none.

`The following Xover MS port needs to be MBSY before continuing.`
`ms 0, card 12, port 63, status = OK`
`Command aborted.`
	This response indicates the XFOLLOWUP command the user executed on the SPM and the corresponding MS ports did not meet the requirements.
	User action: manually busy the MS port.
	System action: none.

`This command is disabled until the xover patch is applied. For more information, please consult the SPM cross-over link upgrade procedure or contact your next level of support.`	This response indicates the CI command is disabled. User action: none. System action: none.
If the user selects “NO" or “N," the following response occurs:	
`Command aborted.`	This response indicates the user aborted this command because the user did not want to crossover the SPM message channels. User action: none. System action: none.

Example

The following is an example of the command.

```
>xfollowup 4

>Y
```

Quit

Purpose

The Quit command is used to quit the SPM messaging channel crossover command.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
quit
```

Parameters

None

MAP responses

None

Example

None

List of terms

BRISC

B-type reduced instruction set computer

BSY

Busy (not in service)

CallP

call processing

call processing

The software system that handles the processes involved in setting up connections through the DMS Family network between calling and called parties.

Call Processing Busy

The state in which call processing is taking place and the equipment involved cannot be seized for maintenance.

CEM

common equipment module

CI

See command interpreter.

circuit pack

Consists of multilayer printed circuit board, through-hole electronic components, backplane connector, faceplate, lock latches, and stiffeners.

CM

See compute module.

command interpreter

A support operating system component that functions as the main interface between machine and user. Its principal roles are to read lines entered by a terminal user, to break each line into recognizable units, to analyze the units, to recognize command item-numbers on the input lines, and to invoke these commands.

compute module

The processor and memory of the dual-plane combined core used by the DMS switch. It coordinates call processing functions of the switch, including the actions of the network and peripheral modules. Each compute module consists of a pair of central processing units with associated

memory that operate in a synchronous matched mode on two separate planes. Only one plane is active; it maintains overall control of the system while the other plane is on standby.

CPB

See Call Processing Busy.

datafill

The data entered into tables.

digital signal 1

The 8-bit 24-channel 1.544 Mbits digital signaling format used in the DMS Family. DS-1 is the North American standard for digital trunks. A closely specified bipolar pulse stream with a bit rate of 1.544 Mbit/s. It is the standard signal used to interconnect Nortel digital systems. The DS-1 signal carries 24 information channels with 64 kbits for each channel (DS-0).

digital signal processor

Software that runs on the service test head analog board, which is used to perform line card testing and subscriber loop diagnostics.

digital trunk controller

A peripheral module that connects DS-30 links from the network to digital trunk circuits.

DMS

A Nortel trademark for a digital multiplex system. Telephone switching equipment, namely, digital switching units for interconnecting telephone subscribers, and control terminals.

DMS-Bus subsystem

A Nortel trademark for a transaction bus of DMS SuperNode switch. The DMS-bus consists of a pair of message switches.

DMS-Core subsystem

A Nortel trademark for the computing and control core of DMS SuperNode switch. It is the call management and system control component of a DMS SuperNode and consists of a compute module and a system load module. The 32-bit Motorola MC68020 microprocessor-based replacement for the NT40 based compute module. The DMS-Core is part of the SuperNode technology used to upgrade to a DMS-SuperNode.

DS1

See digital signal 1.

DSP

digital signal processor

DTC

See digital trunk controller.

ENET

See enhanced network.

enhanced network

Channel-matrixed time switch that provides pulse code modulated voice and data connections between peripheral modules. It also provides message paths to the DMS-bus components.

HMI

Formerly known as human-machine interface, but is currently called user interface. The series of commands and responses used by operating company personnel to communicate with the DMS Family switches. Communication takes place through the MAP terminal and other input/output devices.

Integrated Services Digital Network

A set of standards proposed by the CCITT to establish compatibility between the telephone network and various data terminals and devices. ISDN is a fully digital network. It provides end-to-end connectivity to support a wide range of services including circuit-switched voice, circuit-switched data, and packet-switched data over the same local facility.

ISDN

See Integrated Services Digital Network.

ISDN User Part

A Common Channel Signaling 7 message-based signaling protocol that acts as a transport carrier for ISDN services. It provides the functionality in a CCS7 network for voice and data services.

ISUP

See ISDN User Part.

MAP

A Nortel trademark for a testing and maintenance center for telco switching equipment. An example of correct use is “MAP terminal" or “MAP workstation."

MAPCI

See MAP Command Interpreter.

MAP Command Interpreter

A MAP level for accessing maintenance and other functional levels.

MAP terminal or workstation

The maintenance and administration position. It is a group of components that provide a user interface between operating company personnel and the DMS Family systems. It consists of a visual display unit and keyboard, a voice communications module, test facilities, and MAP furniture. MAP is a trademark of Nortel.

message switch

A high-capacity communications facility that functions as the messaging hub of the dual-plane combined core of a DMS SuperNode processor. The message switch controls messaging between the DMS-bus components by concentrating and distributing messages and by allowing other DMS-STP components to communicate directly with each other.

MMI

See user interface.

MS

See message switch.

MS0

Message Switch 0

MS1

Message Switch 1

OC-3

optical carrier 3

OM

See operational measurement.

ONP

one night process

OPR

optical power received

operational measurement

The hardware and software resources of the DMS Family switches that control the collection and display of measurements taken on an operating system. The OM subsystem organizes the measurement data and manages its transfer to displays and records. The OM data is used for maintenance, traffic, accounting, and provisioning decisions.

operations, administration, and maintenance

All the tasks necessary for providing, maintaining, or modifying the services provided by a switching system. These tasks include provisioning of hardware, creation of service, verification of new service, and trouble recognition and clearance.

PEC

See product engineering code.

per-trunk signaling

A conventional telephony method of signaling that multiplexes the control signal of a call with voice or data over the same channel

peripheral module

A generic term referring to all hardware modules of the DMS Family systems that provide interfaces with external line, trunk, or service facilities. The peripheral module contains peripheral processors that perform local routines, thus relieving the load on the central processing unit.

PM

1) performance monitoring

2) See peripheral module.

product engineering code

An eight-character unique identifier for each marketable hardware item manufactured by Nortel.

PRSM

post-release software management

PTS

See per-trunk signaling.

RM

resource module

RTS

return to service

SONET

See synchronous optical network.

SPM

Spectrum Peripheral Module

SuperNode

Central control complex for the DMS Family switch. The two major components of DMS SuperNode are DMS-Core and DMS-Bus. DMS-Bus consists of dual message switch (MS) shelves; DMS-core consists of a compute module shelf and a system load module. Nortel trademark.

See switch of activity.

synchronous optical network

A standard for optical transport that defines optical carrier levels and their electrically equivalent synchronous transport signals. The SONET standard allows for a multivendor environment, positioning of the network for transport of new services, synchronous network, and enhanced operation, administration, and maintenance.

TRKMEM

Trunk Member table

TRKSGRP

Trunk Subgroup table

user interface

The series of commands and responses used by operating company personnel to communicate with the DMS Family switches. Communication takes place through the MAP terminal and other input/output devices. Formerly known as human-machine interface.

VSP

voice signal processor

XPM

extended peripheral module

Additional directories NA018

The directories on the following pages were added to this document in the NA018 release. These commands are NOT LISTED in the table of contents.

DRM directory

This chapter describes the syntax, purpose, and semantics of the DRM commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

To access the directory

The DRM CI command puts the user into the DRM CI increment providing the user access to DRM carrier maintenance utility commands.

The command is as follows:

```
>MAPCI;MTC;APPL;OAMAP;DRM
```

To return to CI

```
>QUIT MAPCI
```

MOUNT

Purpose

This command mounts a disk volume for writing access by OM or PMA.

The syntax for mounting a PMA volume has been changed since the previous version, since a true DRM mount is no longer being used but mounting a volume name in memory instead.

This command is also used to turn on PMA by the act of mounting a volume in which to store the data.

Command type

Menu

Command target

All

Command availability

Res

Command syntax

Parameters

The following table describes the parameters.

Table 6-1

Parameter	Value	Description
MOUNT	OM	Mount a volume for writing by the OM system.
	PM15	Mount a volume to write 15 minute PMA records into.
	PM24	Mount a volume to write 24 hour PMA records into.

Note: The DISKUT;LV command, entered at the CI level, displays a list of all available volumes which can be mounted by the MOUNT command.

MAP responses

The following are responses to this command.

Table 6-2

Response	`>mount pm15 f17lpm15` `Volume already mounted.`
Explanation and action	The volume is already mounted. Select another volume for mounting.
Response	`mount pm15 f02lpm15` `F02LPM15 volume mounted.`
Explanation and action	The volume has been sucessfully mounted.

DEMOUNT

Purpose

Demount disk volumes which are used by OM and PMA to store data. This command is also used to turn off PMA, by demounting all volumes to which PMA can write data.

Command type

Menu

Command target

All

Command availability

Res

Command syntax

Parameters

The following table describes the parameters.

Table 6-3

Parameter	Value	Description
DEMOUNT	OM	Demount a volume used by the OM system.
	PM15	Demount a volume used to store 15 minute PMA data.
	PM24	Demount a volume used to store 24 hour PMA data.

Note: Demounting all PMA volumes will turn off PMA data collection.

MAP responses

The following are responses to this command.

Table 6-4

Response	`>demount pm15 f02lpm15` `Volume not mounted.`
Explanation and action	The selected volume has not been mounted. Re-issue the command with a valid mounted volume. See the INFO command for information on which volumes are mounted.
Response	`>demount pm15 f17lpm15` `Volume demount successful.`
Explanation and action	The selected volume has been demounted.

INFO

Purpose

The INFO command has been changed for PM15 and PM24 to display a list of mounted volumes for the storage of PMA 15 minute or 24 hour data. It is also used for the display of OM data.

Command type

Menu

Command target

All

Command availability

Res

Command syntax

Parameters

The following table describes the parameters.

Table 6-5

Parameter	Value	Description
INFO	PM15	Displays mounted volumes for collecting 15 minute PMA data.
	PM24	Displays mounted volumes for collecting 24 hour PMA data.
	OM	Displays information about OM volume mounting.

MAP responses

The following are responses to this command.

Table 6-6

Response	`>info pm15`
	`PMA15 Volumes Mounted`
	`_____________________`
	`F17LPM15`

Explanation and action	The F17LPM15 volume has been mounted for the collection of PMA 15 minute data.
Response	`>info pm24` `There are no PMA24 volumes mounted.`
Explanation and action	No volumes have been mounted for the collection of this type of PMA data. Mount a volume if PMA functionality for this collection interval is desired.

PMAUtils directory

This chapter describes the syntax, purpose, and semantics of the PMAUtils commands for the Spectrum Peripheral Module (SPM) and lists them in alphabetical order. Included with each command description are some of the messages that may occur when the command is executed.

The PMAUtils CI increment supports a collection of carrier monitoring utilities. The commands in the PMAUtils increment support only Spectrum carriers. The CarrUtil commands are non-menu and are as follows:

- GetHist — The GetHist command retrieves archived Performance Monitoring (PM) data.
- Help
- ListHist — The ListHist command displays retrieved data.
- Quit
- SetCarr — The SetCarr command specifies the carrier to be monitored.

PMAUtils is used to access the PMA data in human readable form on a specific SPM basis.

To access the directory

The PMAUtils CI command puts the user into the PMAUtils CI increment providing the user access to PMAUtils carrier maintenance utility commands.

The command is as follows:

```
>PMAUTILS
```

To return to CI

```
>QUIT
```

GetHist

Purpose

The GetHist (GH) command retrieves and displays archived Performance Monitoring (PMA) data for the carrier(s) selected by the SETCARR command for a specified date or time, or a range of dates or times.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The parameters for the GetHist command require the user to specify the data to be retrieved.

```
<PERIOD> {MIN <FROM_TIME hr:mn> STRING

              [<TO_TIME> STRING],

                  DAY <FROM_DATE mo/dd> STRING

               [<TO_DATE mo/dd> STRING]}
```

Parameters

The following table describes the parameters.

Table 6-1

Parameter	Value	Description
PERIOD	FROM_TIME	
	TO_TIME	
DAY	FROM_TIME	
	TO_TIME	

MAP responses

The following are responses to this command.

Table 6-2

Response	`>gethist` `A PMA 15 minute volume must be mounted before retrival of data from it.`
Explanation and action	Go to the mapci;mtc;appl;oamap;drm level and mount a volume of the appropriate type. To see volumes that are already mounted: info pm15 Example of mounting a volume: mount pm15 f02lpm15
Response	`>gethist` `Execute SetCarr to put an SPM and carrier or type in context.`
Explanation and action	The SETCARR command must be successfully run before GETHIST can retrieve data. Run SETCARR to put an SPM and carrier or carrier type in context, then rerun the GETHIST command.

Response	`>gethist`
	`File Name: PMA15N53`
	`Date/Time: 2002/04/29 13:00:00.000 MON.`
	`10,0,OC3S,LBC,93,OPT,99,OPR,118,CV,0,ES,0,SES,0,SEFS,0`
	`10,1,OC3S,LBC,95,OPT,100,OPR,123,CV,0,ES,0,SES,0,SEFS,0`

Explanation and action	Retrieves all the records for the carrier(s) set by GETHIST for the specified time.

Response	`>gethist min 13:00 13:15`
	`File Name: PMA15N53`
	`Date/Time: 2002/04/29 13:00:00.000 MON.`
	`10,0,OC3S,LBC,93,OPT,99,OPR,118,CV,0,ES,0,SES,0,SEFS,0`
	`10,1,OC3S,LBC,95,OPT,100,OPR,123,CV,0,ES,0,SES,0,SEFS,0`
	`File Name: PMA15N54`
	`Date/Time: 2002/04/29 13:15:00.000 MON.`
	`10,0,OC3S,LBC,94,OPT,99,OPR,118,CV,0,ES,0,SES,0,SEFS,0`
	`10,1,OC3S,LBC,95,OPT,100,OPR,123,CV,0,ES,0,SES,0,SEFS,0`

Explanation and action	Retrieves all the records for the carrier(s) set by GETHIST for the specified time period.

Help

Purpose

The Help command displays a list of the available commands in the PMAUTILS level with a brief description of their functions. It also gives simplified directions for how to use PMA.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The Help command accepts a single parameter containing the name of the CarrUtil CI increment command for which more information is needed.

```
Help:

Parms: <COMMAND> {HELP,

                  SETCARR,

                  GETHIST,

                  LISTHIST,

                  QUIT}
```

Parameters

The following table describes the parameters.

Table 6-3

Parameter	Value	Description
COMMAND	string	The command for which usage information is needed (optional)

MAP responses

The following are responses to this command.

Table 6-4

Response	`>help` `A PMA 15 minute volume must be mounted before retrival of data from it.`
Explanation and action	Go to the mapci;mtc;appl;oamap;drm level and mount a volume of the appropriate type. To see volumes that are already mounted: info pm15 Example of mounting a volume: mount pm15 f02lpm15
Response	`>gethist` `Execute SetCarr to put an SPM and carrier or type in context.`
Explanation and action	The SETCARR command must be successfully run before GETHIST can retrieve data. Run SETCARR to put an SPM and carrier or carrier type in context, then rerun the GETHIST command.

Response	`>gethist`
	`File Name: PMA15N53`
	`Date/Time: 2002/04/29 13:00:00.000 MON.`
	`10,0,OC3S,LBC,93,OPT,99,OPR,118,CV,0,ES,0,SES,0,SEFS,0`
	`10,1,OC3S,LBC,95,OPT,100,OPR,123,CV,0,ES,0,SES,0,SEFS,0`

Explanation and action	Retrieves all the records for the carrier(s) set by GETHIST for the specified time.

Response	`>gethist min 13:00 13:15`
	`File Name: PMA15N53`
	`Date/Time: 2002/04/29 13:00:00.000 MON.`
	`10,0,OC3S,LBC,93,OPT,99,OPR,118,CV,0,ES,0,SES,0,SEFS,0`
	`10,1,OC3S,LBC,95,OPT,100,OPR,123,CV,0,ES,0,SES,0,SEFS,0`
	`File Name: PMA15N54`
	`Date/Time: 2002/04/29 13:15:00.000 MON.`
	`10,0,OC3S,LBC,94,OPT,99,OPR,118,CV,0,ES,0,SES,0,SEFS,0`
	`10,1,OC3S,LBC,95,OPT,100,OPR,123,CV,0,ES,0,SES,0,SEFS,0`

Explanation and action	Retrieves all the records for the carrier(s) set by GETHIST for the specified time period.

Examples

The following are examples of this command.

```
>Help

>Help HELP

>Help SETCARR

>Help GETHIST

>Help LISTHIST

>Help QUIT
```

SetCarr

Purpose

The SetCarr command selects an individual carrier, carrier type, or all carriers on an SPM to be placed in context for retrieving PMA information.

Command type

Non-menu

Command target

All

Command availability

Res

Command syntax

The following is an example of command syntax.

```
>SETCARR

        <PM> {SPM <NO> {0 TO 85}

                  [<CARRID> {0 TO 185}]

                  [<CARRTYPE> {TYPE[<OC3S> STRING]

                         [<STS3L> STRING]

                         [<STS1P> STRING]

                         [<VT15P> STRING]

                         [<DS3P> STRING]

                          [<DS1P> STRING]

                         [<DS1L> STRING]

                         [<STS1S> STRING]

                         [<STS1L> STRING]}]}
```

Parameters

The following table describes the parameters.

Table 6-5

Parameter	Value	Description
PM	name	The peripheral type (optional)
CARRID	string	
CARRTYPE	string	

MAP responses

The following are responses to this command.

Table 6-6

Response	`>setcarr` `No SPM currently selected`
Explanation and action	The user must provide a valid parameter to the setcarr command to put an SPM and carrier or carrier type in context. Type HELP SETCARR for a description of the command syntax for the command. Type SETCARR HELP to get a list of all valid parameters. Re-enter the command with a valid parameter to set the context.

Response	`>setcarr`
	`SPM 7 currently in context.`
	`Carrier Type OC3S`

Explanation and action	An SPM and carrier type have been successfully selected. The user can now use the GETHIST command to retrieve PMA data for this carrier/type, or use the SETCARR command again to select another carrier or type.

Response	`>setcarr spm 10 10`
	`>setcarr`
	`SPM 10 currently in context.`
	`Carrier Number 10`

Explanation and action	An SPM and individual carrier on that SPM have been selected. The user can now use the GETHIST command to retrieve PMA data for this carrier, or use the SETCARR command again to select another carrier or type.

Examples

To select a carrier by specifying a currently provisioned carrier name, enter the following:

```
>SETCARR NAME RTPSTS1P2

SPM    5 STS1P  2

SPM    5   4 : Name RTPSTS1P2
```

To select a currently provisioned carrier by its SPM number and CKTID, enter the following:

```
>SETCARR SPM 5 7

SPM   5 STS1P 2 DS3P  1

SPM   5  7 : Name RTPDS3P2
```

To select a carrier by specifying its payload position, even if the carrier is not currently provisioned, enter the following:

```
>SETCARR SPM 5 STS1P 1 DS1P 28

SPM   5 STS1P 2 DS3P  DS1P 28

This Carrier is currently not provisioned.
```

To determine which carrier is currently in context by issuing the SetCarr CI command without parameters, enter the following:

```
>SETCARR

SPM  5 STS1P 2 DS3P  1 DS1P 28

This Carrier is currently not provisioned.
```

Digital Switching Systems

DMS-Spectrum Peripheral Module

Commands Reference Manual

Publication number: 297-1771-819
Product release: DMSSPM15
Document release: Standard 06.02
Date: April 2001
Printed in the United States of America

NORTEL NETWORKS™

How the world shares ideas.