297-8981-823

DMS-100 Family

Commands Release

Reference Guide

Volume 2 of 2

NA006 Standard 05.03 April 1997

NORTEL

NORTHERN TELECOM

DMS-100 Family

Commands Release

Reference Guide

Volume 2 of 2

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Seventh release of stand-alone document for previous North American DMS-100 Release Documents. Corrected page number errors in previous issue. No change to manual content.

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Sixth release of stand-alone document for previous North American DMS-100 Release Documents; includes LEC002, LET002, CDN002, LEC003, CDN003, LTT003, CDNTOPS003, USTOPS003, LET003, LETB004, LECB004, CDNB004, LTT004, LATB004, USTOPS04, CDNTOPS004, LETB005, LTTB005, CDNB005, LECB005, LECB006, LETB006, and MSL06. Added AD8425mm.aa05 to NA006 chapter.

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Fifth release of stand-alone document for previous North American DMS-100 Release Documents; includes LEC002, LET002, CDN002, LEC003, CDN003, LTT003, CDNTOPS003, USTOPS003, LET003, LETB004, LECB004, CDNB004, LTT004, LATB004, USTOPS04, CDNTOPS004, LETB005, LTTB005, CDNB005, LECB005, and also LECB006, LETB006..

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Contents

Volume 2

Chapter 4 Release NA005

The information contained in this document has to do with changes, additions, or deleted information in reference to man-machine interface (MM) or commands for DMS-100 and DMS-200 in the North American software releases. This document is broken into two volumes. Volume 1 includes all releases prior to NA005; and Volume 2 includes release NA005 and NA006.

This chapter, NA005, includes information appropriate for the following product computing module loads (PCLs): LECB005, LETB005, CDNB005 and LTTB005.

For information on commands for the Signaling Transfer Point (STP) product, refer to *SuperNode Signaling Transfer Point Maintenance Guide*, 297-8101-541. For information on commands for the DMS SuperNode Service Control Point (SCP) product, refer to *SuperNode Service Control Point II Maintenance Guide*, 297-5131-541

AF6066.aa24

Directories

This feature will add a new CI command increment CPPOOLMGR. This increment will add 5 commands under this increment.

Table of New/Modified Directories

Table 4-1 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	CHANGED	N/A	SUPERNODE	RES
CPPOOLMGR	NEW	N/A	SUPERNODE	RES

Accessing directory:

CPPOOLMGR

To access

CPPOOLMGR

To return to CI

Command used to exit this directory: QUIT or QUIT ALL.

Commands

Table of New/Modified Commands

Table 4-2 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
DMEMINFO	New	N/A	CPPOOLMGR
POOL	New	N/A	CPPOOLMGR
STATIC	New	N/A	CPPOOLMGR
RESETHWM	New	N/A	CPPOOLMGR
DOWNSIZEPOOL	New	N/A	CPPOOLMGR

Command name:

DMEMINFO

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This displays information about the server and the office parm DYNAMIC_MEMORY_SIZE. It displays the parm size in MegaBytes, the total and used server memory in KBYTES, and the total and used server memory in vast areas. It also lists the percentage of the used vs. total memory. After the parm information the pools in alarm are listed.

Warning

This command only displays current dynamic memory information and has no warnings.

Command syntax

DMEMINFO

Parameter definitions

Table 4-3 DMEMINFO Parameter Definitions

PARAMETER	VALUE	DEFINITION
N/A		

Responses

Response

```
>DMEMINFO

---------- DYNAMIC MEMORY SIZE PARM ----------

PARM        MEMORY IN KBYTES                VAST AREAS

SIZE         Total     USED                Total  USED
```

```
  15MB      15360K    2112K  13%             240    33K  13%


---------- POOLS IN ALARM ----------

POOL             FTRQ2WPERMS is in alarm for a POOL_LIMIT alarm.
```

Explanation

The above output shows the dynamic memory size for all pool types in use in the current software load.

System action

N/A

User action

N/A

Notes

N/A

Examples

Please refer to " Response" on page 3.

Command name:

POOL

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This will display the pool name, the what's being used, the High water Mark, how much is allocated, percentage used of total memory, percentage used of the pool's maximum size and a star if the pool is in alarm. You can display one pool or all of the pools. Another option is to print the information in BYTES, Blocks, or Vast Areas. The output is sorted by the IN USE column first and then by the ALLOC column second.

Warning

This command only displays current pool allocation and high water mark information and has no warnings.

Command syntax

>pool

Command to print the basic info for the pools

Parms: [<Pool:> STRING]

[<DISPLAYTYPE:> {VA,

BLOCKS,

BYTES}]

*BLOCKS is the default parameter as well as "ALL" for the POOL.

Parameter Definitions

Table 4-4 POOL Parameter Definitions

PARAMETER	VALUE	DEFINITION
POOL:	A POOL NAME	PRE- DEFINED POOLNAME
DISPLAYTYPE:	VA, *BLOCKS, BYTES	DISPLAY FORMAT FOR OUTPUT OF DATA

Responses

Response

```
>POOL

-------- CURRENT POOL INFORMATION in BLOCKS -------
```

```
POOL NAME                          IN USE  HWM   ALLOC   PERCENT PERCENT  ALARM
                                   BLOCKS BLOCKS BLOCKS  Tot MEM Pool Max
                     FTRQ2WPERMS        0  69615  69615       7%     100% *
                      FTRQAGENTS        0    100   4681       1%       7%
                     FTRQ0WAREAS        0      0   8191       1%      11%
                     FTRQ2WAREAS        0      0   5461       1%       8%
                     FTRQ4WAREAS        0      0   4095       1%       5%
                     FTRQ8WAREAS        0      0   2730       1%       4%
                    FTRQ16WAREAS        0      0   1638       1%       2%
                    FTRQ32WAREAS        0      0    910       1%       1%
                     FTRQ0WPERMS        0      0   5461       1%       8%
NUMBER_OF_NCCBS_SCRATCHEXT_AREAS        0      0   8191       1%       2%
                     FTRQ4WPERMS        0      0   3276       1%       4%
                     FTRQ8WPERMS        0      0   2340       1%       3%
                    FTRQ16WPERMS        0      0   1489       1%       2%
                    FTRQ32WPERMS        0      0    862       1%       1%
>POOL ALL BYTES
------- CURRENT POOL INFORMATION in BYTES -------
POOL NAME                          IN USE    HWM    ALLOC    PERCENT   ALARM
                                   BYTES    BYTES   BYTES    MEM    Max
                     FTRQ2WPERMS        0 1113840 1113840    7%   100% *
                      FTRQAGENTS        0    1400   65534    1%     7%
                     FTRQ0WAREAS        0       0   65528    1%    11%
                     FTRQ2WAREAS        0       0   65532    1%     8%
                     FTRQ4WAREAS        0       0   65520    1%     5%
                     FTRQ8WAREAS        0       0   65520    1%     4%
                    FTRQ16WAREAS        0       0   65520    1%     2%
                    FTRQ32WAREAS        0       0   65520    1%     1%
```

```
                        FTRQ0WPERMS        0        0   65532     1%      8%
NUMBER_OF_NCCBS_SCRATCHEXT_AREAS        0        0   65528     1%      2%
                        FTRQ4WPERMS        0        0   65520     1%      4%
                        FTRQ8WPERMS        0        0   65520     1%      3%
                       FTRQ16WPERMS        0        0   65516     1%      2%
                       FTRQ32WPERMS        0        0   65512     1%      1%

>pool all va

------- CURRENT POOL INFORMATION in VAST AREAS -------

POOL NAME                          IN USE    HWM  ALLOC   PERCENT PERCENT  ALARM
                                    in VA    in VA in VA   Tot MEM Pool Max
                        FTRQ2WPERMS      0       17    17        7%     100% *
                         FTRQAGENTS      0        0     1        1%       7%
                        FTRQ0WAREAS      0        0     1        1%      11%
                        FTRQ2WAREAS      0        0     1        1%       8%
                        FTRQ4WAREAS      0        0     1        1%       5%
                        FTRQ8WAREAS      0        0     1        1%       4%
                       FTRQ16WAREAS      0        0     1        1%       2%
                       FTRQ32WAREAS      0        0     1        1%       1%
                        FTRQ0WPERMS      0        0     1        1%       8%
NUMBER_OF_NCCBS_SCRATCHEXT_AREAS      0        0     1        1%       2%
                        FTRQ4WPERMS      0        0     1        1%       4%
                        FTRQ8WPERMS      0        0     1        1%       3%
                       FTRQ16WPERMS      0        0     1        1%       2%
                       FTRQ32WPERMS      0        0     1        1%       1%
```

Explanation
The above output shows the pool sorted by the inuse column usage in decreasing order for all pool types in use in the current software load.

System action
N/A

User action
N/A

Notes

N/A

Examples

Please refer to “ Command syntax” on page 5.

Please refer to “ Response” on page 5.

Command name:

STATIC

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This will show the user the static information for the pools.The information shown here is displayed as a current indication of pool status.This will display the pool name, size of a pool element (BLK) in bytes, the number of BLKs per vast area, the initial size of the pool in vast areas, the maximum BLKs for this pool, and the maximum size in vast areas for this pool. You can specify a pool name or enter “ALL” to display all pools.

Warning

This command only displays current information concerning the pools and has no warnings.

Command syntax

STATIC

Parameter definitions

Table 4-5 STATIC Parameter Definitions

PARAMETER	VALUE	DEFINITION
ALL	N/A	DEFAULT and OPTIONAL

Responses

Response

```
>STATIC

---------- STATIC POOL INFO ----------

POOL NAME                        BLK SIZE   BLKS   INIT SIZE  MAX   POOL  SIZE
                                 in BYTES  per VA    in VA     in BLKS   in VA

NUMBER_OF_NCCBS_SCRATCHEXT_AREAS        8    8191          1    352213      43
                      FTRQAGENTS       14    4681          1     65534      14
                     FTRQ0WAREAS        8    8191          1     73719       9
                     FTRQ2WAREAS       12    5461          1     65532      12
                     FTRQ4WAREAS       16    4095          1     69615      17
                     FTRQ8WAREAS       24    2730          1     68250      25
                    FTRQ16WAREAS       40    1638          1     67158      41
                    FTRQ32WAREAS       72     910          1     66430      73
                     FTRQ0WPERMS       12    5461          1     65532      12
                     FTRQ2WPERMS       16    4095          1     69615      17
                     FTRQ4WPERMS       20    3276          1     68796      21
                     FTRQ8WPERMS       28    2340          1     67860      29
                    FTRQ16WPERMS       44    1489          1     67005      45
                    FTRQ32WPERMS       76     862          1     66374      77
```

Explanation
The above output shows the static size for all or specific pool types in use in the current software load.

System action

N/A

User action
N/A

Notes

Examples

Please refer to " Response" on page 9.

Command name: RESETHWM

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command has 1 parameter: either ALL or a pool name. This will allow the user to reset the HWM's of one or all pools back to the current level of usage. The current level of usage should take into account peak and off-peak traffic conditions at the time the command is entered. This operation has no dramatic impact on the switch. It's just that the recording of traffic levels starts from scratch. The operation is also scheduled to be done automatically by the system after the application.

Warning

This command should be executed by experienced maintenance craftspersons only.

Command syntax

RESETHWM("ALL" OR A SPECIFIC POOL NAME).

Parameter definitions

Table 4-6 RESETHWM Parameter Definitions

PARAMETER	VALUE	DEFINITION
ALL	N/A	ALL POOL NAMES
POOLNAME	A POOL NAME	A SPECIFIC POOLNAME

Responses

Response

```
>RESETHWM all

You wish to reset the HWM for all pools?

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

or

RESETHWM FTRQ32WPERMS

You wish to reset the HWM for POOL FTRQ32WPERMS?

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

Explanation
This operation has no dramatic impact on the switch it will start the recording of traffic levels from scratch.

System action
N/A

User action
N/A

Notes

N/A

Examples

Please refer to “ Response” on page 11.

Command name:

DOWNSIZEPOOL

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command has 1 parameter: POOL. This allows you to return the memory of a pool back to the server. This will set a flag for the pool. When a restart COLD or RELOAD is performed, any pool whose bool is set will give all of its memory back to the server. Memory gobblers can be forced to regurgitate their ill-gotten memory with this command. It should be noted that MTCSWACT may be used instead of performing a restart.

Warning

This command should be executed by experienced maintenance craftspersons such as ESAC / TAS / ER personnel.

Command syntax

DOWNSIZEPOOL(A SPECIFIC POOL NAME).

Parameter definitions

Table 4-7 DOWNSIZEPOOL Parameter Definitions

PARAMETER	VALUE	DEFINITION
POOL	POOL NAME	A SPECIFIC POOLNAME

Responses

Response

```
>DOWNSIZEPOOL FTRQ32WPERMS

You wish to lower POOL FTRQ32WPERMS value to 0?

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

```
>Y

A COLD/RELOAD restart must be done before this takes effect.

You can also use MTCSWACT to avoid an outage.
```

Explanation
DOWNSIZEPOOL returns store from the pool to the server.

- After this command is done, a restart must be

- performed to actually downsize the pool to 0.

System action
N/A

User action
N/A

Notes

N/A

Examples

Alarms

Alarm name:

CPPOOL_MINOR

Conditions required to raise the alarm

This alarm “CPPOOL_MINOR” can be set in two ways. First, the internal audit can raise this alarm when it detects an alarmable condition. Secondly, when the “DMEMINFO” command is invoked it performs an audit which would raise this alarm when appropriate.

Specifically, this alarm is raised with the POOL300, POOL310, and POOL320 log reports. The POOL300 report is given when the number of free vast areas owned by the server is reduced to 30% of server memory. The POOL310 log report is given when the number of vast areas used by a pool reaches 70% of the server’s limit of vast areas of that pool. The POOL320 log report is given when a pool reaches 90% of its absolute possible usage level.

For more information refer to the LG section of this document.

Duration of the alarm

Manual removal of an EXT map-level “CPPOOLMGR” alarm can be performed using normal EXT scan point release commands. However, if the condition which is causing the alarm is still present, the alarm will be reset when the audit runs again.

The alarm will be cleared by the internal audit if the condition which has caused the alarm is corrected.

The craftsperson should refer to the CPPOOLMGR increment or the POOL log history to determine what alarmable condition is present in the switch.

If the alarm has been caused by a lack of memory (i.e. a POOL300 or POOL310 log report), the alarm condition can be cleared by either increasing the DYNAMIC_MEMORY_SIZE office parameter or by use of the “DOWNSIZEPOOL” command from the CPPOOLMGR increment. The “DOWNSIZEPOOL” command has a user warning. Please refer to “ Warning” on page 12.

If the alarm was caused by an absolute limit (POOL320), then this alarm should be reported to NorTel personnel for investigation.

Alarm name:

CPPOOL_MAJOR

Conditions required to raise the alarm

This alarm “CPPOOL_MAJOR” can be set in two ways. First, the internal audit can raise this alarm when it detects an alarmable condition. Secondly, when the “DMEMINFO” command is invoked it performs an audit which would raise this alarm when appropriate.

Specifically, this alarm is raised with the POOL301 and POOL311 log reports. The POOL301 report is given when the number of free vast areas owned by the server is reduced to 20% of server memory. The POOL311 log report is given when the number of vast areas used by a pool reaches 80% of the server’s limit of vast areas of that pool.

For more information refer to the LG section of this document.

Duration of the alarm

Manual removal of an EXT map-level “CPPOOL_MAJOR” alarm can be performed using normal EXT scan point release commands. However, if the condition which is causing the alarm is still present, the alarm will be reset when the audit runs again.

The alarm will be cleared by the internal audit if the condition which has caused the alarm is corrected.

The craftsperson should refer to the CPPOOLMGR increment or the POOL log history to determine what alarmable condition is present in the switch.

If the alarm has been caused by a lack of memory (i.e. a POOL301 or POOL311 log report), the alarm condition can be cleared by either increasing the DYNAMIC_MEMORY_SIZE office parameter or by use of the “DOWNSIZEPOOL” command from the CPPOOLMGR increment. The “DOWNSIZEPOOL” command has a user warning. Please refer to “Warning” on page 1231.

Alarm name:

CPPOOL_CRITICAL

Conditions required to raise the alarm

This alarm “CPPOOL_CRITICAL” can be set in two ways. First, the internal audit can raise this alarm when it detects an alarmable condition. Secondly, when the “DMEMINFO” command is invoked it performs an audit which would raise this alarm when appropriate.

Specifically, this alarm is raised with the POOL302, POOL312, and POOL322 log reports. The POOL302 report is given when the number of free vast areas owned by the server is reduced to 10% of server memory. The POOL312 log report is given when the number of vast areas used by a pool reaches 90% of the server’s limit of vast areas of that pool. The POOL322 log report is given when a pool reaches 100% of its absolute possible usage level.

For more information refer to the LG section of this document.

Duration of the alarm

Manual removal of an EXT map-level “CPPOOL_CRITICAL” alarm can be performed using normal EXT scan point release commands. However, if the condition which is causing the alarm is still present, the alarm will be reset when the audit runs again.

The alarm will be cleared by the internal audit if the condition which has caused the alarm is corrected.

The craftsperson should refer to the CPPOOLMGR increment or the POOL log history to determine what alarmable condition is present in the switch.

If the alarm has been caused by a lack of memory (i.e. a POOL302 or POOL312 log report), the alarm condition can be cleared by either increasing the DYNAMIC_MEMORY_SIZE office parameter or by use of the "DOWNSIZEPOOL" command from the CPPOOLMGR increment. The "DOWNSIZEPOOL" command has a user warning. Please refer to "Warning" on page 1231.

If the alarm was caused by an absolute limit (POOL321), then this alarm should be reported to NorTel personnel for investigation.

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Directories

Not applicable.

Table of New/Modified Directories

Not applicable.

Accessing directory:

Not applicable.

To access

Not applicable.

To return to CI

Not applicable.

Commands

Querypm Flt.

Table of New/Modified Commands

Table 4-8 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
Querypm Flt	Changed		POST

Command name: Querypm Flt

Command type

Menu.

Command target

Supernode and Brisc

Command availability

RESident.

Command description

The Querypm Flt command exists in the ‘mapci;mtc;pm;post pm x level’. This command is used to post a fault to the map for a pm or unit. Two new faults have been added by this feature for the ISTB status. One fault can be seen when the active unit is ISTB of ‘parity’ and the other new fault is when the unit is ISTB of ‘too many parity faults’.

Warning

Not applicable.

Command syntax

The ‘Querypm Flt’ command syntax has not changed. New fault messages output to the map screen have been added by this feature.

Parameter definitions

Table 4-9 Querypm Flt Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

EXAMPLE 1: (unit 1 is active, unit 0 inactive)

```
>querypm flt
Node is ISTb
       One or both Units inservice trouble
Unit 0
       no fault exists
Unit 1
       The following inservice troubles exists:
              Parity audit has detected a hard parity fault.
              A reload is required to clear this fault.
              The system will autoload this unit during the next
              XPM REX test window.
```

EXAMPLE 2:

```
>querypm flt
Node is ISTb
       One or both Units inservice trouble
```

```
Unit 0
       no fault exists
Unit 1
       The following inservice troubles exist:
       Parity audit has detected a hard parity fault.
       Three parity faults have occurred on this unit within a month.
       Use Querypm Diaghist for additional information on fault.
       Replace card indicated. A SWACT FORCE is required to clear this
       ISTB and to perform a SwAct.
```

Explanation
EXAMPLE 1:

This response is informational only. This response is visible on SUPERNODE and BRISC.

EXAMPLE 2:

The Querypm Diaghist will list a card associated with the parity fault. This card should be changed. This response is visible on SUPERNODE and BRISC.

System action
EXAMPLE 1:
The system will swact and reload the XPM during the next XPM REX test window. After the reload the XPM will be cleared of this ISTB fault.

EXAMPLE 2:
A manual or system swact cannot be performed with this fault. A SWACT FORCE is necessary to swact and clear the ISTB fault.

User action
EXAMPLE 1:
No action required by the user. The user can perform a manual swact and reload to clear the parity fault.

EXAMPLE 2:
The Querypm Diaghist will list a card associated with the parity fault. This card should be changed and a SWACT FORCE command issued to clear the ISTB and to clear the counter.

Notes

Not applicable.

Examples

```
QUERYPM: QUERY MISC INFO ABOUT THE PM
Parms: [<OPTION> {FLT,
     CNTRS,
     FILES,
     DIAGHIST [<OPTHIST> {DIAG,
                          CARD,
                          RESET}]}]
```

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Not applicable.

Duration of the alarm

Not applicable.

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Directories

TABDIR

This feature does not change the table control of any table or change any fields. It adds a new error message to table RCUINV to indicate that a tuple is being rejected because some part of the SRC registration process failed.

Table of New/Modified Directories

Table 4-10 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Command name: ADD, CHANGE (Table RCUINV)

Command type

TABLE CONTROL

Command target

ALL

Command availability

RES

Command description

The ADD command allows a user to datafill a new RCU in table RCUINV. The CHANGE command allows an existing RCU to be moved to another SMU (or ESMU).

Warning

NONE

Command syntax

ADD <rcuno> <adnum> <frtype> <frno> <shpos> <floor> <row> <frpos> <cspmno> <cslnktab> <rngdata> <lta> <rltp> <rtac> <lineshf1> <ctrlshf2> <lineshf2> <ssm1> <ssm2> <systmopt> <drutest> <location>

CHANGE <field name or number>

Where the field name and number corresponds to any of the fields listed above, with the exception of the key field.

Parameter definitions

Table 4-11 ADD, CHANGE Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response 1

Explanation:
The RCU or one of it's dependencies failed to register with the system recovery controller (SRC). The tuple is rejected because there are no adequate means or recovering nodes that are not registered with the SRC during restarts and swacts.

System action:
NONE

User action:
Contact customer support personnel.

Response 2

Could not update system recovery dependancy

Explanation:
While attempting to move an existing RCU to a new SMU or ESMU, a failure occurred in the SRC. This error implies that either the dependency on the old SMU could not be deleted or the dependency on the new SMU could not be added. The tuple is rejected in this case.

System action:
NONE

User action:
Contact customer support personnel.

Response 3

Node has been deregistered from the System Recovery Controller

Attempt a nil change on the tuple to register the node with the SRC

Explanation:
While attempting to move an existing RCU to a new SMU or ESMU, a failure occurred in the SRC. This error implies that either the dependency on the old SMU could not be deleted or the dependency on the new SMU could not be added. An attempt was made to restore the old dependencies, but that attempt failed. The tuple is rejected in this case and the RCU is deregistered from the SRC since it's dependencies are corrupt.

This can cause the RCU to take longer to recover after restarts and CM swacts since it's recovery will not be coordinated by the SRC.

System action:
None

User action:
Try to do a nil change on the tuple. A nil change will cause the RCU to attempt to register with the SRC if it is not already registered. If this fails, contact customer support personnel.

Notes

NONE

Examples

>TABLE RCUINV

>ADD RCU0 00 0 1 RUC 3 4 0 L 3 SMU 0 (1 1) (2 2) (3 3) (4 4) (5 5) (6 6) (7 7) (8 8) $ C N N Y Y Y Y Y Y S N $

Could not register the RCU to the system recovery controller

PROCESSING ERROR

UNEXPECTED ERROR CONDITION

TUPLE TO BE ADDED:

RUC0 00 0 1 RUC 3 4 0 L 3 SMU 0 (1 1) (2 2) (3 3) (4 4) (5 5) (6 6) (7 7) (8 8) $ c N N Y Y Y Y Y Y S N $

ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.

N

>CHANGE CSPMNO SMU 1

Could not update system recovery dependancy

PROCESSING ERROR

UNEXPECTED ERROR CONDITION

TUPLE TO BE CHANGED:

RUC0 00 0 1 RUC 3 4 0 L 3 SMU 1 (1 1) (2 2) (3 3) (4 4) (5 5) (6 6) (7 7) (8 8) $ c N N Y Y Y Y Y Y S N $

ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.

N

>CHANGE CSPMNO SMU 1

The RCU has been deregistered from the System Recovery Controller

Could not update system recovery dependancy

PROCESSING ERROR

UNEXPECTED ERROR CONDITION

TUPLE TO BE CHANGED:

RUC0 00 0 1 RUC 3 4 0 L 3 SMU 1 (1 1) (2 2) (3 3) (4 4) (5 5) (6 6) (7 7) (8 8) $ c N N Y Y Y Y Y Y S N $

ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.

N

Alarms

Alarm name: N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

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Directories

TABDIR

This feature does not change the table control of any table or change any fields. It adds a new error message to tables LDTINV and RCSINV to indicate that a tuple is being rejected because some part of the SRC registration process failed.

Table of New/Modified Directories

Table 4-12 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Command name: ADD (Tables LDTINV, RCSINV)

Command type

TABLE CONTROL

Command target

ALL

Command availability

RES

Command description

The ADD command allows a user to datafill a new LDT or RCS in tables LDTINV and RCSINV (respectively). .

Warning

NONE

Command syntax

Table LDTINV:

ADD <ldtno> <adnum> <cspmno> <pslink>

CHANGE <field name or number>

Where the field name and number corresponds to any of the fields listed above, with the exception of the key field.

Table RCSINV:

ADD <rcsno> <adnum> <frtype> <frno> <shpos> <floor> <row> <frpos> <load> <cspmno> <abinfo> <cdinfo> <rngtype> <acu> <protinfo> <scsdinfo> <misctext> <almsever> <location>

Parameter definitions

Table 4-13 ADD Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response 1

Could not register the LDT to the system recovery controller

Explanation:
The LDT or one of it's dependencies failed to register with the system recovery controller (SRC). The tuple is rejected because there are no adequate means or recovering nodes that are not registered with the SRC during restarts and swacts.

System action:
NONE

User action:
Contact customer support personnel.

Notes

NONE

Response 2

Could not register the RCS to the system recovery controller

Explanation:
The RCS or one of it's dependencies failed to register with the system recovery controller (SRC). The tuple is rejected because there are no adequate means or recovering nodes that are not registered with the SRC during restarts and swacts.

This message can be displayed when adding a new RCS or when attempting a change on a tuple to re-register an RCS that has been deregistered from the SRC as a result of a depenency corruption during a previous node relocation attempt.

System action:
NONE

User action:
Contact customer support personnel.

Command name: CHANGE (Tables RDTINV, RCSINV, RCTINV)

Command type

TABLE CONTROL

Command target

ALL

Command availability

RES

Command description

The CHANGE command allows an existing tuple to be moved to a new cside peripheral.

Warning

NONE

Command syntax

Table RDTINV:

CHANGE <IDTNAME>

Table RCSINV:

CHANGE <CSPMNO>

Table RCTINV:

CHANGE <CSPMNO>

Parameter definitions

Table 4-14 CHANGE Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response 1

Could not update system recovery dependancy

Explanation:
This response was added for table RCSINV only. Table RCTINV already prints this same message and table RDTINV prints a similar message. Changes are not allowed in table LDTINV, so this response does not apply.

While attempting to move an existing RCS to a new cside peripheral (SMS or SMSR), a failure occurred in the SRC. This error implies that either the dependency on the old cside peripheral could not be deleted or the dependency on the new cside peripheral could not be added. The tuple is rejected in this case.

System action:
NONE

User action:
Contact customer support personnel.

Response 2

Node has been deregistered from the System Recovery Controller

Attempt a nil change on the tuple to register the node with the SRC

Explanation:
While attempting to move an existing RCS to a new cside peripheral (SMS or SMSR), corruption of the node's cside depdency occurred and the node was deregistered from the SRC. The tuple is rejected in this case.

System action:
NONE

User action:
Attempt a nil change on the tuple so that an attempt will be made to re-register the node with the SRC. If an error message indicating that registration failed occurs, contact customer support personnel.

Notes

NONE

Examples

RDT

```
>TABLE RDTINV
>CHANGE IDTNAME SMA 1 108
Node has been deregistered from the System Recovery Controller
Attempt a nil change on the tuple to register the node with the SRC
PROCESSING ERROR
 UNEXPECTED ERROR CONDITION
TUPLE TO BE CHANGED:
RDT1 08 0 9 SMA 1 108 $ BRTPY451 $ RFT 1 7 1 96 Y (TBP MAPIF 12 TBPP N ) $
(1 2) (2 3) (3 4) (4 5) $ N STDLN S $ (NETWORK_ID 1) (SYSTEM_ID 1)
(NETWORKELEMENT_ID 24) (EQUIPMENT_ID 1) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
N
```

RCS

```
>CHANGE CSPMNO SMS 1
Could not update system recovery dependancy
PROCESSING ERROR
 UNEXPECTED ERROR CONDITION
TUPLE TO BE CHANGED:
RCS0 08 0 21 SLC 2 35 1 M 23 NO_LOAD SMS 1 MODE1 (0) (1) $
MODE1 (2) (3) $ F WP1B Y 4 N MISC_ALARM MAJOR $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
N
>CHANGE CSPMNO SMS 1
Node has been deregistered from the System Recovery Controller
Attempt a nil change on the tuple to register the node with the SRC
PROCESSING ERROR
 UNEXPECTED ERROR CONDITION
TUPLE TO BE CHANGED:
RCS0 08 0 21 SLC 2 35 1 M 23 NO_LOAD SMS 1 MODE1 (0) (1) $
MODE1 (2) (3) $ F WP1B Y 4 N MISC_ALARM MAJOR $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
N
RCT
>CHANGE CSPMNO SMR 1
Node has been deregistered from the System Recovery Controller
Attempt a nil change on the tuple to register the node with the SRC
```

```
PROCESSING ERROR
 UNEXPECTED ERROR CONDITION
TUPLE TO BE CHANGED:
RCT 00 0 10 RTR 0 0 0 A 0 NOLOAD SMR 1 (1) (3) $ F 20 30 40 50 SLTA Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
N
```

Alarms

Alarm name: N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AG3290mm.aa15

Directories

TSTQUERY

AINCI

Table of New/modified Directories

Table 4-15 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
TSTQUERY	CHANGED		SUPERNODE	RES
AINCI	CHANGED		SUPERNODE	RES

Directory Information

Accessing directory: TSTQUERY

To access

MAPCI;TESTTOOL;TSTQUERY

To return to CI

QUIT ALL

Accessing directory: AINCI

To access

AINCI

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 4-16 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ACG	CHANGED		MAPCI;TESTTOOL; TSTQUERY
ACGENCOUNTERED	CHANGED		MAPCI;TESTTOOL; TSTQUERY
SEEPARM	CHANGED		MAPCI;TESTTOOL; TSTQUERY
ACGDISPLAY	NEW		AINCI
ACGDELETE	NEW		AINCI

Command name: ACG

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command was used to manually add the ACGEncountered parameter to the test query currently being built. This parameter is now populated automatically when ACG controls are active.The command is changed so that a message is displayed informing the user of how the parameter is populated. The user is no longer able to enter the parameter manually.

Warning

N/A

Command syntax

ACGEncountered command is no longer valid. ACGEncountered is populated by ACG database only.

Parameter definitions

N/A

Responses

Response

“ACGEncountered is a live parameter populated by the ACG database only. It can no longer be added manually. Use the “ACGDISPLAY” command in the AINCI directory to list active ACG controls.”

Explanation
The above response is generated whenever the command is entered.

System action
The above response is generated whenever the command is entered. No action is taken.

User action
N/A

Notes

N/A

Examples

```
>ACG<enter>
ACGEncountered is a live parameter populated by the ACG
database only. It can no longer be added manually. Use the
“ACGDISPLAY” command in the AINCI directory to list active
ACG controls.
>
```

Command name: ACGEncountered

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command was used to manually add the ACGEncountered parameter to the test query currently being built. This parameter is now populated automatically when ACG controls are active.The command is changed so that a message is displayed informing the user of how the parameter is populated. The user is no longer able to enter the parameter manually.

Warning

N/A

Command syntax

ACGEncountered command is no longer valid. ACGEncountered is populated by ACG database only.

Parameter definitions

N/A

Responses

Response

“ACGEncountered is a live parameter populated by the ACG database only. It can no longer be added manually. Use the “ACGDISPLAY” command in the AINCI directory to list active ACG controls.”

Explanation
The above response is generated whenever the command is entered.

System action
The above response is generated whenever the command is entered. No action is taken.

User action
N/A

Notes

N/A

Examples

```
>ACGEncountered<enter>

ACGEncountered is a live parameter populated
by the ACG database only. It can no longer
be added manually. Use the “ACGDISPLAY”
command in the AINCI directory to list active
ACG controls.
>
```

Command name: SEEPARM

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to view the parameters currently present in the query being built.

Warning

N/A

Command syntax

Command to see the values of parameters. Parms: <parameter name> {All, ACC, AccessCode, ACG, ACGEncountered, A, AMP, BC, BearerCapability, CDD, CalledPartyID, CST, CalledPartyStationType, CBI, CallingPartyBGID, CID, CallingPartyID, CN, ChargeNumber, CPT, ChargePartyStationType,CC, ClearCause, CAI, CollectedAddressInfo, CD, CollectedDigits, FC, FailureCause, GN, GenericName, LAT, Lata, OCI, OriginalCalledPartyID,

PC, PrimaryCarrier, RPI, RedirectingPartyID, RI, RedirectionInformation, T, TCM, TC, TriggerCriteriaType, VSC, VerticalServiceCode, UID, UserId, ED, EchoData, TI, TerminationIndicator, CT, ConnectTime, BCA, BusyCause, AES, ApplicationErrorString, Application, Transport, Message}

Parameter definitions

The user may enter ALL to view all parameters in the message or enter one of the parameter names to view only that parameter.

Responses

Response

When the command entered is either “SEEPARM ACG” or SEEPARM ACGEncountered” the following response is generated:

“WARNING - The ACGEncountered parameter may be added to any outgoing query. Use the “ACGDISPLAY” command in the AINCI directory to list active ACG controls”

When the command entered is “SEEPARM ALL” all parameters currently present are displayed along with the following message:

“WARNING - The ACGEncountered parameter may be added to any outgoing query. Use the “ACGDISPLAY” command in the AINCI directory to list active ACG controls”

Explanation
The above response is generated whenever the command is entered with the ALL, ACG, or ACGEncountered parameter.

System action
None.

User action
N/A

Notes

N/A

Examples

```
>SEEPARM ACG<enter>
WARNING - The ACGEncountered parameter may be added to any
outgoing query. Use the “ACGDISPLAY” command in the AINCI
directory to list active ACG controls.
>SEEPARM ACGEncountered<enter>
WARNING - The ACGEncountered parameter may be added to any
outgoing query. Use the “ACGDISPLAY” command in the AINCI
directory to list active ACG controls.
>SEEPARM ALL<enter>
Application: R01
Transport: SS7
Gtt Name: AINJAZZ
Gtt Source: Default
Message: TerminationAttempt
CalledPartyID: 6136215123
Nature of Number: Not applicable
Numbering Plan: ISDN Numbering Plan
TriggerCriteriaType: terminationAttempt
WARNING - The ACGEncountered parameter may be added to any
outgoing query. Use the “ACGDISPLAY” command in the AINCI
directory to list active ACG controls.
```

Command name: ACGDISPLAY

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to display the contents of the AIN0.1 ACG control lists. The control lists can be displayed a number of ways:

— all control lists (currently SCP and SMS)

— SCP control list

— SMS control list, all gap types (zero-gap and non-zero-gap)

— SMS control list, zero-gap controls only

— SMS control list, non-zero-gap control only

Warning

N/A

Command syntax

Syntax for the ACGDISPLAY command as it appears on the MAP is shown below

```
AINCI:
>q ACGDISPLAY

ACGDISPLAY displays the ACG control lists.

       Command Syntax:   ACGDISPLAY <list_type> <gap_type>

       Note that <list_type> and <gap_type> are both optional
       parameters, and that <gap_type> is valid only when
       <list_type> is specified as SMS_LIST.

       ACGDISPLAY entered with no parameters displays all
       control list information for all lists.

Parms: [<LIST_TYPE> {SCP_LIST,
                     SMS_LIST [<GAP_TYPE> {ZERO_GAP,
                                           NON_ZERO_GAP}],
                      ALL}]
AINCI:
```

Note that the GAP_TYPE parameter can only be entered as a second parameter if SMS_LIST is entered as the first parameter.

Both LIST_TYPE and GAP_TYPE are optional parameters.

Parameter definitions

LIST_TYPE is a character string specifying the control list(s) which will be displayed. Valid values are: SCP_LIST, SMS_LIST, and ALL. This parameter is optional.

GAP_TYPE is valid only when the LIST_TYPE is entered as SMS_LIST. GAP_TYPE is a character string specifying which controls to display when displaying the SMS_LIST. Valid values are: ZERO_GAP, and NON_ZERO_GAP. This parameter is optional. If GAP_TYPE is not specified, both ZERO_GAP and NON_ZERO_GAP controls are displayed for the SMS_LIST by default.

Responses

Response

Output for the ACGDISPLAY command has the format:

```
AINCI:
>ACGDISPLAY

                A I N   S O C C   C O N T R O L   C O D E S

TRANSLATION   GLOBAL_TITLE    GAP_DUR    GAP_INT    GAP_DUR    GAP_INT
TYPE          ADDRESS         (Secs)     (mSecs)    REMAINING  REMAINING
-------------------------------------------------------------------------
AINTRANS1     6136211234      256        1000       165        487
AINTRANS1     613621          INFINITY   128000     INFINITY   43200
AINTRANS1     6136218888      INFINITY   ZERO       INFINITY   ZERO



                A I N   S C P   C O N T R O L   C O D E S

TRANSLATION   GLOBAL_TITLE    GAP_DUR    GAP_INT    GAP_DUR    GAP_INT
TYPE          ADDRESS         (Secs)     (mSecs)    REMAINING  REMAINING
-------------------------------------------------------------------------
AINTRANS1     613621          16         2000       5          343
AINTRANS1     613722          64         8000       52         1854

>
```

The above output is for the ACGDISPLAY command with no additional parameters. The above output can be varied by specifying values for the optional parameters. See the ‘Examples’ section for several examples.

Explanation
The ACGDISPLAY output contains the control item information for the SCP and SOCC ACG control lists. The output is presented in table format and has the following fields:

TRANSLATION TYPE - refers to a service, group of services, or a switch release depending on the TelCo. The translation type (TT) is datafilled in table C7GTTYPE where it is associated with a GTTNAME.

GLOBAL TITLE ADDRESS - indicates the number against which the control is in effect.

GAP DUR - the gap duration. This field specifies the duration of the control in seconds.

GAP INT - the gap interval. This field specifies the gapping interval in milli-seconds.

GAP DUR REMAINING - the gap duration remaining in seconds. Indicates the much longer the control will remain active. When there is no remaining gap duration the control is automatically removed from the list.

GAP INT REMAINING - the gap interval remaining in milli-seconds. Indicates the time remaining before one query is allowed.

Special values for these fields should be noted as follows:

INFINITY - this value is valid for the GAP DUR and GAP DUR REMAINING fields in both SCP and SOCC lists. It is valid only for the GAP INT and GAP INT REMAINING fields in the SOCC list.

ZERO - in the SOCC list ZERO is valid for the GAP INT and GAP INT REMAINING fields.

System action
The above response is generated whenever the command is entered. No action is taken.

User action
N/A

Notes

N/A

Examples

The following examples illustrate the use of the ACGDISPLAY command with additional parameters specified.

```
AINCI:
>ACGDISPLAY SCP_LIST

                A I N   S C P   C O N T R O L   C O D E S

TRANSLATION   GLOBAL_TITLE    GAP_DUR    GAP_INT    GAP_DUR    GAP_INT
TYPE          ADDRESS         (Secs)     (mSecs)    REMAINING  REMAINING
-------------------------------------------------------------------------
AINTRANS1     613621          16         2000       5          343
AINTRANS1     613722          64         8000       52         1854

>
```

```
AINCI:
>ACGDISPLAY SMS_LIST

                A I N   S O C C   C O N T R O L   C O D E S

TRANSLATION   GLOBAL_TITLE    GAP_DUR    GAP_INT    GAP_DUR    GAP_INT
TYPE          ADDRESS         (Secs)     (mSecs)    REMAINING  REMAINING
-------------------------------------------------------------------------
AINTRANS1     6136211234      256        1000       165        487
AINTRANS1     613621          INFINITY   128000     INFINITY   43200
AINTRANS1     6136218888      INFINITY   ZERO       INFINITY   ZERO

>
```

```
AINCI:
>ACGDISPLAY SMS_LIST ZERO_GAP

                A I N   S O C C   C O N T R O L   C O D E S

TRANSLATION   GLOBAL_TITLE    GAP_DUR    GAP_INT    GAP_DUR    GAP_INT
TYPE          ADDRESS         (Secs)     (mSecs)    REMAINING  REMAINING
-------------------------------------------------------------------------
AINTRANS1     6136218888      INFINITY   ZERO       INFINITY   ZERO

>
```

Command name: ACGDELETE

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to delete specific AIN 0.1 ACG controls. The user must enter the TT and GTA of the control to be deleted, and must specify which list to delete the control from. Only a single control is deleted per request.

Warning

N/A

Command syntax

The following is the command syntax as appears on the MAP.

```
>q ACGDELETE

ACGDELETE deletes an ACG control from the specified control list.

    Command Syntax:   ACGDELETE <list_type> <tt_name> <gta>

   Parameters: the mandatory parameters to the ACGDELETE command are:

               list_type - the control list.

              tt_name (Translation Type name) - refer to Translation
                        Type field in ACGDISPLAY output.

               gta (Global Title Address) - can be up to ten digits.
                      - 6 digits for the SCP LIST.
                      - 3, 6, 7, 8, 9, or 10 digits for the SMS list.

Parms: <LIST_TYPE> {SCP_LIST,
                    SMS_LIST}
       <TT> STRING
       <GTA> STRING
>
```

Parameter definitions

LIST_TYPE - Control list from which the control item is deleted.

TT - Translation Type. Refers to a service, group of services, or a switch release depending on the TelCo. The TT is datafilled in table C7GTTYPE where it is associated with a GTTNAME.

GTA - Global Title Address. Indicates the digits that the control will gap on.

Responses

Response

Upon execution of the ACGDELETE command the control list is searched for the specified control. If the control does not exist, a message is displayed to the user and the command exits. If the control exists, its contents and a warning message are displayed and the user is asked to confirm the delete command. Upon confirmation of the command, the control item is deleted.

The following response is generated when the user enters the parameters correctly, the TT exists, and the control exists in the specified control list:

```
>ACGDELETE SCP_LIST AINJAZZ 613621

Control data:

Global TranslationGAPGAP_INTGAP_DURGAP_INT
Title  Type  DurationIntervalRemainingRemaining
AddressName (seconds)(m-secs)(seconds)(m-secs)
-------------------------------------------------------
613621 AINJAZZ1283070118  0

  WARNING:  Deleting a control may impact the stability
            of the CCS7 network.  The severity of this impact
            depends on the current network traffic load.
            This command should be used only when
            circumstances necessitate that a control be
            removed.

ARE YOU SURE YOU WANT TO DELETE THIS CONTROL ?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>
```

Upon confirmation the delete request is enqueued and the following response is generated.

```
The delete request is being processed.
Please use the ACGDISPLAY command to verify that
the control has been removed.  An AIN611 log is
generated when a control is successfully deleted.
```

The following response is generated when the user chooses to reject the delete request at the confirmation stage:

```
ACGDELETE request aborted.
```

The following response is generated when the specified control does not exist:

```
>ACGDELETE SCP_LIST AINJAZZ 613722

Control with GTA = 613722 and TT_NAME = AINJAZZ does
not exist in the SCP control list.
```

The following response is generated when the user enters the wrong number of digits for the specified control list (correct number of digits are 6 for SCP_LIST and 3, 6-10 for SMS_LIST):

```
>ACGDELETE SCP_LIST AINJAZZ 6136215

6 digit GTA required for SCP_list.
```

```
>ACGDELETE SMS_LIST AINJAZZ 61362

3, 6, 7, 8, 9, or 10 digit GTA required for SMS_list.
```

The following response is generated when the user enters invalid digits in the GTA:

```
>ACGDELETE SCP_LIST AINJAZZ 613621b

Invalid digits entered.
```

The following response is generated when the TT is not datafilled in TABLE C7GTTYPE:

```
>ACGDELETE SCP_LIST AINPOP 6136215

Given TT_NAME does not exist.  Check table C7GTTYPE.
```

Explanation

System action
The control list item is removed from the specified list if it exists and the user confirms the delete action.

User action
N/A

Notes

N/A

Examples

Several examples of possible delete scenarios are shown below:

A successful deletion.

```
>ACGDELETE SMS_LIST AINROCK 6137221234

Control data:

Global TranslationGAPGAP_INTGAP_DURGAP_INT
Title  Type  DurationIntervalRemainingRemaining
AddressName (seconds)(m-secs)(seconds)(m-secs)
------------------------------------------------------------
6137221234AINROCKINFINITY6280INFINITY2120

  WARNING:  Deleting a control may impact the stability
            of the CCS7 network.  The severity of this impact
            depends on the current network traffic load.
            This command should be used only when
            circumstances necessitate that a control be
            removed.

ARE YOU SURE YOU WANT TO DELETE THIS CONTROL ?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>yes

The delete request is being processed.
Please use the ACGDISPLAY command to verify that
the control has been removed.  An AIN611 log is
generated when a control is successfully deleted.
```

The user rejects the delete request.

```
>ACGDELETE SCP_LIST AINJAZZ 613621

Control data:

Global TranslationGAPGAP_INTGAP_DURGAP_INT
Title  Type  DurationIntervalRemainingRemaining
AddressName (seconds)(m-secs)(seconds)(m-secs)
------------------------------------------------------------
613621 AINJAZZ1024310458627358

  WARNING:  Deleting a control may impact the stability
            of the CCS7 network.  The severity of this impact
            depends on the current network traffic load.
            This command should be used only when
            circumstances necessitate that a control be
            removed.

ARE YOU SURE YOU WANT TO DELETE THIS CONTROL ?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>n
ACGDELETE request aborted.
>
```

The control does not exist.

```
>ACGDELETE SCP_LIST AINPOP 613722

Control with GTA = 613722 and TT_NAME = AINPOP does
not exist in the SCP control list.

>
```

The TT is not datafilled in table C7GTTYPE.

```
>ACGDELETE SCP_LIST AINPOP 613621

Given TT_NAME does not exist.  Check table C7GTTYPE.

>
```

Alarms

Alarm name:

N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

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Directories

Table of New/Modified Directories

Table 4-17 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
AINCI	NEW		SUPERNODE	RES

AINCI directory is created to provide LEC operator necessary means to read and update AIN Trigger Assignment data.

Accessing directory: AINCI

To access

AINCI

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 4-18 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SHOWSTATE	NEW	N/A	CI; AINCI
CHANGESTATE	NEW	N/A	CI; AINCI
QUIT	NEW	N/A	CI; AINCI
HELP	NEW	N/A	CI; AINCI
TRAVER	CHANGED	N/A	CI
TRNSLVF	CHANGED	N/A	MAPCI; MTC; TRKS; TTP

Note: Other AIN related CI commands may also be put into AINCI increment in the future, such as CI commands for ACG feature in NA005B release. For more information about ACG CI commands, please refer to documents of AG3290.

Command name: SHOWSTATE

Command type

Non-menu

Command target

SuperNode.

Command availability

Res.

Command description

This command is used to show the activation state of a given agent, trigger and bearer capability to the user.

Warning

Standard CI command warnings is provided when the entered data is not in the acceptable format.

Command syntax

Parms: <agent> { DN <directory number>

CLLI <trunk group name>

ADNUM <administrative number> }

<trigger> { OFFHKIMM, OFFHKDEL, TERMATT }

[<bearer_capability>] { SPEECH, 3_1KHZ, 56KDATA, 64KDATA }

Parameter definitions

Table 4-19 SHOWSTATE Parameter Definitions

PARAMETER	VALUE	DEFINITION
agent (Mandatory)	string or integer	user can specify agent by using DN, CLLI, or ADNUM. DN can be 10-digits or 7-digits. ADNUM is an integer range from {0 to 8191}
trigger (Mandatory)	string	The string value is the trigger of type AIN_TRIGGER_TYPE. For R0.1 application, the valid value are OFFHKIMM, OFFHKDEL, and TERMATT.
bearer_capability (Optional)	string	The string value is the bearer capability of type AIN_BC_TYPE. For R0.1 application, the valid string value are SPEECH, 3_1KHZ, 56KDATA,and 64KDATA.

Note that if the bearer capability is omitted, then the command will be executed for all applicable bearer capabilities. For example, if the SHOWSTATE command is executed for an AIN agent that is subscribed to an Off-Hook Immediate trigger on a call type basis of VBINFO, then the SHOWSTATE command will be executed for the SPEECH and 3_1KHZ bearer capabilities. The following table shows how the call type criterion (from the trigger group to which the AIN agent is subscribed) is mapped to the corresponding bearer capabilities:

Table 4-20 Corresponding bearer capabilities for the call type criteria

Call type	Bearer capability
VBINFO	SPEECH
	3_1KHZ
CMDATA	56KDATA
	64KDATA

Responses

Response

AGENT: user input (i.e. DN, CLLI, or Administrative number

TRIGGER: user input trigger type (i.e. OFFHKIMM, OFFHKDEL, TERMATT).

BEARER CAPABILITY: user input (SPEECH, 3_1KHZ, 56KDATA, 64KDATA).

TRIGGER STATE: retrieved activation state for this trigger/bearer capability combination.

Explanation:
The response corresponds to a given agent, trigger and bearer capability.

System action:
The system provides no action.

User action:
No user action is necessary.

Notes

N/A

Examples

The following examples demonstrate the usage of SHOWSTATE command. A agent, specified by DN, CLLI or Administrative number, and a trigger with bearer capability are entered by user. The output of the command is shown below.

```
>SHOWSTATE DN 6211091 OFFHKIMM SPEECH
AGENT:              DN 6136211091
TRIGGER:            OFFHKIMM
BEARER CAPABILITY: SPEECH
TRIGGER STATE:     OFF

>SHOWSTATE CLLI TRKGRP1 OFFHKDEL 56KDATA
AGENT:              CLLI TRKGRP1
TRIGGER:            OFFHKDEL
BEARER CAPABILITY: 56KDATA
TRIGGER STATE:     ON

>SHOWSTATE ADNUM 203 OFFHKDEL
AGENT:              ADNUM 203
TRIGGER:            OFFHKDEL
BEARER CAPABILITY: SPEECH
TRIGGER STATE:     OFF
BEARER CAPABILITY: 3_1KHZ
TRIGGER STATE:     OFF
BEARER CAPABILITY: 56KDATA
TRIGGER STATE:     ON
BEARER CAPABILITY: 64KDATA
TRIGGER STATE:     ON

>SHOWSTATE DN 6137221234 TERMATT 64KDATA
AGENT:              DN 6137221234
TRIGGER:            TERMATT
BEARER CAPABILITY: 64KDATA
TRIGGER STATE:     ON

>SHOWSTATE DN 6211111 OFFHKDEL
TRIGGER IS NOT SUBSCRIBED FOR BEARER CAPABILITY SPEECH
TRIGGER IS NOT SUBSCRIBED FOR BEARER CAPABILTIY 3_1KHZ
AGENT:              DN 6136211111
TRIGGER:            OFFHKDEL
BEARER CAPABILITY: 56KDATA
TRIGGER STATE:     OFF
BEARER CAPABILITY: 64KDATA
TRIGGER STATE:     ON
```

Command name: CHANGESTATE

Command type

Non-menu

Command target

Supernode.

Command availability

Res.

Command description

This command is used to modify the activation state of an assignment for a given agent, trigger and bearer capability.

Warning

Standard CI command warnings is provided when the entered data is not in the acceptable format.

Command syntax

Parms: <agent> { DN <directory number>

CLLI <trunk group name>

ADNUM <administrative number> }

<trigger> { OFFHKIMM, OFFHKDEL, TERMATT }

[<bearer_capability>] { SPEECH, 3_1KHZ, 56KDATA, 64KDATA }

<state> { ON, OFF }

Parameter definitions

Please refer to SHOWSTATE command Parameter Definitions.

Responses

Response

AGENT: user input (i.e. DN, CLLI, or Administrative number

TRIGGER: user input trigger type (i.e. OFFHKIMM, OFFHKDEL, TERMATT).

BEARER CAPABILITY: user input (i.e. SPEECH, 3_1KHZ, 56KDATA, 64KDATA).

TRIGGER STATE: current activation state for this trigger /bearer capability combination.

ARE YOU SURE YOU WANT TO CHANGE THE TRIGGER STATE(S) TO user input state (ON, OFF) ?

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

> user confirmation input: Y

> ACTIVATION STATE CHANGED

Explanation:
The system displays the existing activation states for the given agent, trigger and bearer capability, as well as the new state input by the user. The system then prompts the user to confirm the change.

System action:
If the user enters Y or YES, the activation states are updated. If user enters N or NO, the command is ignored.

User action:
User enters Y, YES, N, or NO to indicate if the command should be processed or ignored.

Notes

N/A

Examples

The following examples demonstrate the usage of the CHANGESTATE command.

```
>CHANGESTATE DN 6211091 OFFHKIMM SPEECH ON
AGENT:             DN 6136211091
TRIGGER:           OFFHKIMM
BEARER CAPABILITY: SPEECH
TRIGGER STATE:     OFF

ARE YOU SURE YOU WANT TO CHANGE THE TRIGGER STATE(S) TO ON ?
Please confirm ("YES", "Y", "NO", or "N"):
>Y
ACTIVATION STATE CHANGED

>CHANGESTATE CLLI TRKGRP1 OFFHKDEL 56KDATA OFF
AGENT:             CLLI TRKGRP1
TRIGGER:           OFFHKDEL
BEARER CAPABILITY: 56KDATA
TRIGGER STATE:     OFF

ARE YOU SURE YOU WANT TO CHANGE THE TRIGGER STATE(S) TO OFF ?
Please confirm ("YES", "Y", "NO", or "N"):
>Y
ACTIVATION STATE CHANGED

>CHANGESTATE ADNUM 203 OFFHKDEL OFF
TRIGGER IS NOT SUBSCRIBED FOR BEARER CAPABILITY SPEECH
TRIGGER IS NOT SUBSCRIBED FOR BEARER CAPABILITY 3_1KHZ
AGENT:             ADNUM 203
TRIGGER:           OFFHKDEL
BEARER CAPABILITY: 56KDATA
TRIGGER STATE:     ON
BEARER CAPABILITY: 64KDATA
TRIGGER STATE:     OFF

ARE YOU SURE YOU WANT TO CHANGE THE TRIGGER STATE(S) TO OFF ?
Please confirm ("YES", "Y", "NO", or "N"):
>Y
ACTIVATION STATE CHANGED

>CHANGESTATE DN 6137221234 TERMATT 64KDATA ON
AGENT:             DN 6137221234
TRIGGER:           TERMATT
BEARER CAPABILITY: 64KDATA
TRIGGER STATE:     OFF

ARE YOU SURE YOU WANT TO CHANGE THE TRIGGER STATE(S) TO ON ?
Please confirm ("YES", "Y", "NO", or "N"):
>N
CHANGESTATE COMMAND ABORTED
```

Command name: HELP

Command type

Non-menu

Command target

Supernode.

Command availability

Res.

Command description

This command provides information about the available commands under **AINCI** directory.

Warning

N/A

Command syntax

No parameters are required.

Responses

Response

```
AINCI:
>help
 AINCI COMMANDS:

 QUIT.......... QUIT FROM THE AINCI DIRECTORY
 HELP.......... SHOW ALL THE AVAILABLE COMMANDS

 SHOWSTATE..... SHOW THE TRIGGER ACTIVATION STATE FOR AN AIN AGENT
 CHANGESTATE... CHANGE THE TRIGGER ACTIVATION STATE FOR AN AIN AGENT

 ACGDISPLAY.... DISPLAY THE ACG CONTROL LIST(S)
 ACGDELETE..... DELETE A SINGLE ACG CONTROL
```

Note:

If other CI commands are added into AINCI (e.g. ACG commands), the related command information will also be added into response of HELP command.

Explanation:

Its displays information about the available commands in **AINCI.**

System action:

The system provides no action.

User action:
No user action is necessary.

Notes

N/A

Examples

Please see Section "Response" .

Command name: QUIT

Command type

Non-menu

Command target

Supernode.

Command availability

Res.

Command description

This command provide function to quit from AINCI, and back to CI.

Warning

N/A

Command syntax

No parameters are required.

Responses

N/A

Command name: TRAVER

Command type

Non-menu

Command target

SuperNode.

Command availability

Res.

Command description

This command allows the craftsperson to verify that the translations have been datafilled correctly. Activity AG4164 will modify the AIN TRAVER so that the trigger activation state will be checked and displayed for the AIN trigger types Off-Hook Immediate, Off-Hook Delay, and Termination Attempt.

Warning

Unchanged.

Command syntax

Unchanged.

Responses

Response

The output of the TRAVER command with the trace option has been modified to display the applicable trigger activation state just before the outcome of trigger criteria checking is displayed. Some sample TRAVER output displays are shown in this section.

Figure 4-1 shows the displayed output for an AIN agent subscribed to an Off-Hook Immediate trigger with the trigger activation state set to active. The modifications are shown in bold

.

Figure 4-1 Trigger is active and trigger criteria is satisfied

```
>traver l 6216101 6224001 t
TABLE LINEATTR
871 1MR NONE NT FR01 0 613 AIN1 L613 TOPS 10 OTWA NILSFC LATA1 0 NIL NIL 00 N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 06 S AIN AIN LNTRIGGRP1_AUTO
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
TABLE TRIGGRP
LNTRIGGRP1_AUTO ORIGATT
 . OFFHKIMM ( CT VBINFO)$ ROCKINFO
Trigger R01 OFFHKIMM is applicable to individual POTS line.
Trigger R01 OFFHKIMM: Trigger is active.
   (Use AINCI CHANGESTATE command to alter activation state.)
 .  . TABLE TRIGINFO
 .  . ROCKINFO EVENT TCAP R01 SS7 AINROCK DFLT $
 .  .  . TABLE C7GTTYPE
 .  .  . AINROCK ANSI7 5 $
 .  .  . TABLE LENFEAT
 .  .  . TUPLE NOT FOUND
 .  .  . TABLE C7GTT
 .  .  . AINROCK 6136216101 6136216101 PCSSN (AINTATM_RTESET2 AIN01 0) $ SSN
AIN Orig Attempt TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++
>
```

Figure 4-2 shows the displayed output for an AIN agent subscribed to an Off-Hook Immediate trigger with the trigger activation state set to inactive. Note that TRAVER treats the activation state as another criterion to be checked during criteria checking, and so the displayed output contains a message stating that the trigger criteria was not met.

Figure 4-2 Trigger is inactive

```
>traver l 6216101 6224001 t
TABLE LINEATTR
871 1MR NONE NT FR01 0 613 AIN1 L613 TOPS 10 OTWA NILSFC LATA1 0 NIL NIL 00 N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 06 S AIN AIN LNTRIGGRP1_AUTO
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
TABLE TRIGGRP
LNTRIGGRP1_AUTO ORIGATT
 . OFFHKIMM ( CT VBINFO)$ ROCKINFO
Trigger R01 OFFHKIMM is applicable to individual POTS line.
Trigger R01 OFFHKIMM: Trigger is not active.
   (Use AINCI CHANGESTATE command to alter activation state.)
AIN Orig Attempt TDP: trigger criteria not met.
TABLE STDPRTCT
AIN1 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 984 1 ( 269) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . KEY NOT FOUND
 . DEFAULT VALUE IS:  VCT VACT N
TABLE TMTCNTL
LNT ( 107)
 . SUBTABLE TREAT
 . VACT Y T OFRT 52
 . TABLE OFRT
 .   52 S D VCA
.      S D *OFLO
 .      S D LKOUT
 . EXIT TABLE OFRT

+++ TRAVER: SUCCESSFUL CALL TRACE +++

>
```

Figure 4-3 shows the displayed output for an AIN agent subscribed to an Off-Hook Delay trigger with the trigger activation state set to active but with the trigger criteria not satisfied (due to the dialed digits). Note that the call proceeds to trigger on an office-based trigger.

Figure 4-3 Trigger is active but criteria is not satisfied

```
>traver l 6217142 911 t
TABLE LINEATTR
873 PBM NONE NT FR01 0 613 AIN1 L613 TOPS 10 OTWA NILSFC LATA1 0 NIL NIL 00 N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
613 621 7142
    (PUBLIC (NONUNIQUE ) $)$ $
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 20 S AIN AIN LNTRIGGRP2_AUTO
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
AIN Orig Attempt TDP: no subscribed trigger.
TABLE STDPRTCT
AIN1 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
. DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 984 1 ( 274) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 911 911 LRTE 911
TABLE TRIGGRP
LNTRIGGRP2_AUTO INFOCOL
 . OFFHKDEL ( CT VBINFO) (ESC )$ ROCKINFO
Trigger R01 OFFHKDEL is applicable to individual POTS line.
Trigger R01 OFFHKDEL: Trigger is active.
   (Use AINCI CHANGESTATE command to alter activation state.)
 .  . TABLE TRIGESC
 .  . 911
AIN Info Collected TDP: trigger criteria not met.
TABLE TRIGGRP
OFCTRIGGRP_ALL INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 .  . TABLE TRIGDIG
 .  . N11DIG N11 911 N11 EVENT TCAP R01 SS7 AINJAZZ DFLT $
 .  .  . TABLE C7GTTYPE
 .  .  . AINJAZZ ANSI7 3 $
 .  .  . TABLE C7GTT
 .  .  . AINJAZZ 9110000000 9110000000 SSNONLY (AINTEST) $
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++

>
```

Figure 4-4 shows the displayed output for an AIN agent subscribed to an Off-Hook Delay trigger with the trigger activation state set to inactive and with the trigger criteria not satisfied (due to the dialed digits). Note that the call proceeds to trigger on an office-based trigger.

Figure 4-4 Trigger is inactive and other criteria is not satisfied

```
>traver l 6217142 911 t
TABLE LINEATTR
873 PBM NONE NT FR01 0 613 AIN1 L613 TOPS 10 OTWA NILSFC LATA1 0 NIL NIL 00 N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
613 621 7142
    (PUBLIC (NONUNIQUE ) $)$ $
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 20 S AIN AIN LNTRIGGRP2_AUTO
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
AIN Orig Attempt TDP: no subscribed trigger.
TABLE STDPRTCT
AIN1 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
. DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 984 1 ( 274) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 911 911 LRTE 911
TABLE TRIGGRP
LNTRIGGRP2_AUTO INFOCOL
 . OFFHKDEL ( CT VBINFO) (ESC )$ ROCKINFO
Trigger R01 OFFHKDEL is applicable to individual POTS line.
Trigger R01 OFFHKDEL: Trigger is not active.
   (Use AINCI CHANGESTATE command to alter activation state.)
AIN Info Collected TDP: trigger criteria not met.
TABLE TRIGGRP
OFCTRIGGRP_ALL INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 .  . TABLE TRIGDIG
 .  . N11DIG N11 911 N11 EVENT TCAP R01 SS7 AINJAZZ DFLT $
 .  .  . TABLE C7GTTYPE
 .  .  . AINJAZZ ANSI7 3 $
 .  .  . TABLE C7GTT
 .  .  . AINJAZZ 9110000000 9110000000 SSNONLY (AINTEST) $
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++

>
```

Figure 4-5 shows the displayed output for an AIN agent subscribed to an Off-Hook Delay trigger with the trigger activation state set to inactive. Note that the call proceeds to trigger on an office-based trigger.

Figure 4-5 Trigger is inactive and other criteria is satisfied

```
>traver l 6217142 6216101 t
TABLE LINEATTR
873 PBM NONE NT FR01 0 613 AIN1 L613 TOPS 10 OTWA NILSFC LATA1 0 NIL NIL 00 N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
613 621 7142
    (PUBLIC (NONUNIQUE ) $)$ $
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 20 S AIN AIN LNTRIGGRP2_AUTO
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
AIN Orig Attempt TDP: no subscribed trigger.
TABLE STDPRTCT
AIN1 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 984 1 ( 269) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 621 621 DN 613 621
TABLE TRIGGRP
LNTRIGGRP2_AUTO INFOCOL
 . OFFHKDEL ( CT VBINFO) (ESC )$ ROCKINFO
Trigger R01 OFFHKDEL is applicable to individual POTS line.
Trigger R01 OFFHKDEL: Trigger is not active.
   (Use AINCI CHANGESTATE command to alter activation state.)
AIN Info Collected TDP: trigger criteria not met.
TABLE TRIGGRP
OFCTRIGGRP_ALL INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
.  . TABLE TRIGDIG
 .  . PODPDIG PODP 6136216101 PODP EVENT TCAP R01 SS7 AINROCK DFLT $
 .  .  . TABLE C7GTTYPE
 .  .  . AINROCK ANSI7 5 $
 .  .  . TABLE C7GTT
 .  .  . AINROCK 6136216101 6136216101 PCSSN (AINTATM_RTESET2 AIN01 0) $ SSN
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++

>
```

Figure 4-6 and Figure 4-7 show the displayed output for an AIN agent subscribed to an Off-Hook Immediate trigger and a Termination Attempt trigger with the trigger activation states for both triggers set to active, with the trigger criteria for the Off-Hook Immediate trigger not satisfied, and with the trigger criteria for the Termination Attempt trigger satisfied.

Figure 4-6 Trigger is active and Termination Attempt trigger criteria is

```
>traver l 6216102 6211414 t
TABLE LINEATTR
263 1FR NONE NT FR01 0 613 AIN2 L613 TOPS 10 NIL NILSFC LATA1 0 NIL NIL 00 Y
RESG263 0 0 $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 07 S AIN AIN BUNNYGRP
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
TABLE TRIGGRP
BUNNYGRP ORIGATT
 . OFFHKIMM ( CT CMDATA)$ JAZZINFO
Trigger R01 OFFHKIMM is applicable to individual POTS line.
Trigger R01 OFFHKIMM: Trigger is active.
   (Use AINCI CHANGESTATE command to alter activation state.)
AIN Orig Attempt TDP: trigger criteria not met.
TABLE STDPRTCT
AIN2 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 984 1 ( 269) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 621 621 DN 613 621
AIN Info Collected TDP: no subscribed trigger.
TABLE TRIGGRP
OFCTRIGGRP_ALL INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
AIN Info Analyzed TDP: trigger criteria not met.
```

Figure 4-7 Trigger is active and Termination Attempt trigger criteria is

```
TABLE TOFCNAME
613 621
TABLE DNINV
613 621 1414 L HOST 00 1 12 23
TABLE DNFEAT
613 621 1414 (AINDN DNTRIGGRP_ZOOT) $
TABLE TRIGGRP
DNTRIGGRP_ZOOT TERMATT
 . TERMATT $ JAZZINFO
Trigger R01 TERMATT is applicable to directory number.
Trigger R01 TERMATT: Trigger is active.
   (Use AINCI CHANGESTATE command to alter activation state.)
.  . TABLE TRIGINFO
 .  . JAZZINFO EVENT TCAP R01 SS7 AINJAZZ DFLT $
 .  .  . TABLE C7GTTYPE
 .  .  . AINJAZZ ANSI7 3 $
 .  .  . TABLE C7GTT
 .  .  . AINJAZZ 6136211414 6136211414 SSNONLY (AINTEST) $
AIN Term Attempt TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++

>
```

Figure 4-8 and Figure 4-9 show the displayed output for an AIN agent subscribed to an Off-Hook Immediate trigger and a Termination Attempt trigger with the trigger activation state for the Off-Hook Immediate trigger set to active and the trigger activation state for the Termination Attempt trigger set to inactive. The trigger criteria for the Off-Hook Immediate trigger is not satisfied, while the trigger criteria for the Termination Attempt trigger is satisfied.

Figure 4-8 Trigger is inactive and Termination Attempt trigger criteria is

```
>traver l 6216102 6211414 t
TABLE LINEATTR
263 1FR NONE NT FR01 0 613 AIN2 L613 TOPS 10 NIL NILSFC LATA1 0 NIL NIL 00 Y
RESG263 0 0 $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
HOST 00 0 01 07 S AIN AIN BUNNYGRP
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIGGRP_ALL
TABLE TRIGGRP
BUNNYGRP ORIGATT
 . OFFHKIMM ( CT CMDATA)$ JAZZINFO
Trigger R01 OFFHKIMM is applicable to individual POTS line.
Trigger R01 OFFHKIMM: Trigger is active.
   (Use AINCI CHANGESTATE command to alter activation state.)
AIN Orig Attempt TDP: trigger criteria not met.
TABLE STDPRTCT
AIN2 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 984 1 ( 269) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 621 621 DN 613 621
AIN Info Collected TDP: no subscribed trigger.
TABLE TRIGGRP
OFCTRIGGRP_ALL INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
AIN Info Analyzed TDP: trigger criteria not met.
```

Figure 4-9 Trigger is inactive and Termination Attempt trigger criteria is

```
TABLE TOFCNAME
613 621
TABLE DNINV
613 621 1414 L HOST 00 1 12 23
TABLE DNFEAT
613 621 1414 (AINDN DNTRIGGRP_ZOOT) $
TABLE TRIGGRP
DNTRIGGRP_ZOOT TERMATT
 . TERMATT $ JAZZINFO
Trigger R01 TERMATT is applicable to directory number.
Trigger R01 TERMATT: Trigger is not active.
   (Use AINCI CHANGESTATE command to alter activation state.)
AIN Term Attempt TDP: trigger criteria not met.
TABLE DNATTRS
613 621 1414
    (PUBLIC ( NAME ENVER_DOKUZOGUZ) $)$ $
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LCASCRCN
613 L613 ( 14) OPTL N
 . SUBTABLE LCASCR
 . 621 623
TABLE PFXTREAT
OPTL NP Y NP UNDT
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++

>
```

Notes

Unchanged.

Examples

See “Response” for examples.

Command name: TRNSLVF

Command type

Menu.

Command target

SuperNode.

Command availability

Res.

Command description

This command allows the craftsperson to verify that the translations have been datafilled correctly for trunks. Activity AG4164 will modify the AIN TRAVER so that the trigger activation state will be checked and displayed for the AIN trigger types Off-Hook Immediate, Off-Hook Delay, and Termination Attempt; these modifications will be incorporated into TRNSLVF when it is invoked with the trace option set.

Warning

Unchanged.

Command syntax

Unchanged.

Response

When TRNSLVF is invoked with the trace option set for an AIN-subscribed trunk, the trigger activation state will be checked and displayed. As the output of TRNSLVF in this case is identical to that of AIN TRAVER, please refer to “Response” for more details.

Notes
Unchanged.

Examples
Unchanged. The modified output is described in “Response”.

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Not applicable.

Duration of the alarm

Not applicable.

AG4168mm.ab05

This activity is documented under the umbrella activity AG4164. Please refer to the appropriate document.

Directories

Table of New/Modified Directories

Table 4-21 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Table of New/Modified Commands

Table 4-22 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

Command name:

Command type

Command target

Command availability

Command description

Warning

Command syntax

Parameter definitions

Table 4-23 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

Explanation:

System action:

User action:

Notes

Examples

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG4482mm.aa11

The user interface for TDN, QCM and CALLTRAK will be slightly enhanced and an entry of a local DN with duplicate office code will result in prompting the user for a full National number .

In the case of each test tool, the aim is not to alter the tools' original design structure, just to overlay VarDN compliance and the ability to handle duplicate local numbers.

Directories

Not Applicable.

Commands

Table 4-24 New/Modified Commands

COMMAND NAME	NEW/ CHANGED/ DELETED	NEW NAME (IF RENAMED)	DIRECTORY NAME
TDN	Changed		PROGDIR
SELECT (CALLTRAK)	Changed		CALLTRAKDIR
REMOVE (CALLTRAK)	Changed		CALLTRAKDIR
QCM	Changed		PROGDIR

Command name: TDN (TRACEDN)

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

TDN is a NON-RES command.

Command description

TDN command, at present, requires a DN in North American format as input parameter and indicates the connection path from the telephone lines' LCM port up to the network. The user selection of the line is via Directory number only. This feature makes the following changes:

- The user can input a variable-length Directory Number.
- If the office code part of the DN is a duplicate one, area code should be entered by the user.

Warning

NA

Command syntax

Command format : TDN <Directory Number>

where <Directory Number> can either be a unique local number or a full National number.

The format of the selectable DN (fixed or variable lengths) is controlled by Table OFCENG, office parameter ACTIVE_DN_SYSTEM. After DN is entered, it is validated based upon ACTIVE_DN_SYSTEM parameter. If NORTH_AMERICAN (default), then only 7 digits will be permitted for local numbers and 10 digits for National number. If UNIVERSAL, then 1-15 digits will be allowed.

Parameter definitions

Table 4-25 TDN Parameter Definitions

PARAMETER	VALUE	DEFINITION
Directory Number	Numeric (15 digits maximum)	default

The DN parameter is enhanced to accept variable length DNs and all other parameters are left unchanged.

Responses

Explanation :
The response is visible on SuperNode and BRISC.

System action:
The system will prompt the user for full National number, if the office code of the DN parameter is a duplicate one.

The system responds like this :

DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER : , when a duplicate local number is entered.

User action:
The user enters the full National number to resolve the ambiguity.

Example :

```
>tdn 6320002
DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER :
>0766320002
------------------------------------------------------
DN:     0766320002
LCM node number     :   20
    terminal number :   625
XPM info:
   internal terminal = 1268
Extract Number returned false
Couldnt trace LGC pathends.
------------------------------------------------------
```

Command name: SELECT (CALLTRAK)

Command type

NON-MENU

Command target

SuperNode, BRISC.

Command availability

SELECT(CALLTRAK) is a RES command.

Command description

CALLTRAK is a CI shell which allows the user to trace calls over specific terminals (Lines, Trunks etc.) providing Program and Message tracing. Base CALLTRAK is available to all DMS products, but line selection is only for DMS100 systems.

The SELECT command is used to specify agents “under trace”. Selection is done either by entering a DN or a LEN. This feature enhances the DN selection only.

Warning

NA

Command syntax

```
CallTrak:> select
Parms: <Option:> {TID <Node:> {0 TO 4095}
        <Terminal:> {0 TO 4095},
         ALL [<BOUNCE Only?:> {BOUNCE}],
         TRK <CLLI> STRING
          [<Member Number:> {0 TO 9999}]
          [<To Member Number:> {0 TO 9999}],
          DN <Directory Number:> STRING,
          LEN [<Site:> STRING]
          <Frame:> {0 TO 511}
            <Unit:> {0 TO 9}
             <Drawer:> {0 TO 31}
             <Circuit:> {0 TO 99}
              [<Key:> {1 TO 69}],
              LTID <Ltid Group:> STRING
              <Terminal Number:> {0 TO 1022}
               [<Key:> {1 TO 69}],
              AC <CLLI:> STRING,
              LOGTID}
```

where DN can be either a unique local number or a full National number.

Parameter definitions

Table 4-26 SELECT Parameter Definitions

PARAMETER	VALUE	DEFINITION
Directory Number	Numeric (15 digits maximum)	default

The DN parameter can accept up to 15 digits to enable selection of variable length directory number and all other parameters are left unchanged.

Responses

Explanation :
The response is visible on SuperNode and BRISC.

System action:
The system will prompt the user for full National number, if the office code of the DN parameter is a duplicate one.

DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER : will be the system response if the directory number entered is not a unique local number and hence needs the full national number to resolve the ambiguity.

User action:
The user enters the full National number to resolve the ambiguity.

Example :

```
>select dn  6320002
DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER :
>0766320002
```

selects the Directory number 6320002 for call tracing.

Command name: REMOVE (CALLTRAK)

Command type

NON-MENU

Command target

SuperNode, BRISC.

Command availability

REMOVE (CALLTRAK) is a RES command.

Command description

This command allows the craftsperson to deselect the DN selected for call tracing.

Warning

NA

Command syntax

```
>remove
Next par is: <Option:> {TID <Node:> {0 TO 4095}
                <Terminal:> {0 TO 4095},
             ALL [<BOUNCE Only?:> {BOUNCE}],
             TRK <CLLI> STRING
                [<Member Number:> {0 TO 9999}]
                [<To Member Number:> {0 TO 9999}],
             DN <Directory Number:> STRING,
             LEN [<Site:> STRING]
                <Frame:> {0 TO 511}
                <Unit:> {0 TO 9}
                <Drawer:> {0 TO 31}
                <Circuit:> {0 TO 99}
                [<Key:> {1 TO 69}],
             LTID <Ltid Group:> STRING
                 <Terminal Number:> {0 TO 1022}
                 [<Key:> {1 TO 69}],
             AC <CLLI:> STRING,
             LOGTID}
```

where DN can be a unique local number or a full National number.

Parameter definitions

Table 4-27 REMOVE Parameter Definitions

PARAMETER	VALUE	DEFINITION
Directory Number	Numeric (15 digits maximum)	default

The length of the DN parameter is changed from 10 to 15 digits to accept variable length DNs and all other parameters are left unchanged.

Responses

Explanation :
The response is visible on SuperNode and BRISC.

System action:

The system will prompt the user for full National number, if the office code of the DN parameter is a duplicate one.

The response of the system will be :

DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER : , when a duplicate directory number is entered.

User action:
The user enters the full National number to resolve the ambiguity.

Example :

```
>remove dn  6320002
DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER :
>0766320002
```

deselects the Directory number 6320002 and call tracing will not be done for this directory number from this point onwards.

Command name: QCM

Command type

NON-MENU

Command target

SuperNode, BRISC.

Command availability

QCM is a RES command.

Command description

A CI command, packaged with all DMS100 variants, which is used to display attributes of CLASS calls i.e., CLI, Call Waiting etc.

The user selection of the agents involved in the call is via either Directory Number or Line Equipment Number. Introduction of this feature enhances DN selection of variable length.

Warning

NA

Command syntax

QCM <DN or LEN> <Format Option (F|H)>

where DN is either a local number or a full National number and LEN is the line equipment number and the format option is either “formatted” or “hex”.

Parameter definitions

Table 4-28 QCM Parameter Definitions

PARAMETER	VALUE	DEFINITION
Directory Number	Numeric (15 digits maximum)	default

The length of the DN parameter is changed from 10 to 15 digits to accept variable length DNs and all other parameters are left unchanged.

Responses

Explanation :
The response is visible on SuperNode and BRISC.

System action:
The system will prompt the user for full National number, if the office code of the DN parameter is a duplicate one.

DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER : , will be the system response, when the user enters a duplicate local number.

User action:
The user enters the full National number to resolve the ambiguity in office code.

Example :

```
>qcm 6320002 f
DUPLICATE DNs DETECTED : ENTER FULL NATIONAL NUMBER :
>0766320002
------------------------------------------------------------
CALL MEMORY DISPLAY FOR  DN: 6320002    LEN: HOST  50 1 19 16
*** No INCOMING CALL MEMORY for this line ***
*** No OUTGOING CALL MEMORY for this line ***
------------------------------------------------------------
```

AG4483MM.AA05

Refer to MM section of feature AG4490.

AG4485mm.aa11

The userinterface will be modified in the LTP/TTP levels of the MAP display to display the full variable length DN at the Linked DN position. The WIDEBAND, BRDCST & QPHINFO CI commands are also affected because of this change.

Directories

Not Applicable.

Table of New/Modified Directories

Table 4-29 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
-	-	-	-	-

Accessing directory:

Not Applicable.

To access

Not Applicable.

To return to CI

Not Applicable.

Commands

Table of New/Modified Commands

Table 4-30 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
BRDCST	Changed	N/A	CI
WIDEBAND	Changed	N/A	PROG
QPHINFO	Changed	N/A	LTPISDN
POST (LTP)	Changed	N/A	LTP
POST (LTPDATA)	Changed	N/A	LTPDATA
POST (LTPISDN)	Changed	N/A	LTPISDN

Table 4-30 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
POST (TTP)	Changed	N/A	TTP

Command name: BRDCST

BRDCST

Command type

NON-MENU

Command target

SUPERNODE & BRISC

Command availability

Command description

This command is created for the broadcast call specific. The trunk CLLI and the member number are required when this command is issued.If the provided trunk CLLI with the member number is not involved in a broadcast call, an error message "Circuit not involved in broadcast call" is displayed. Otherwise, the controller of the broadcast call followed by all the terminators involved in this specific broadcast call are displayed. If line terminators are involved then the full DNs (area+office+station codes) are displayed.

Warning

N/A

Command syntax

BRDCST <CLLI> <num>

Responses

“Circuit not involoved in broadcast call”

Explanation:
Provides trunk CLLI/member number is not involved in a broadcast call.

System action:
None

User action:
None.

Notes

The provided CLLI/member number can be the controller or a terminator of a broadcast call.

Examples

brdcst isupic 2

Assume the isupic 2 is the controller of a broadcast call, the following is displayed.

```
isupic 2
613 596 0259
613 456812345678
       .
       .
```

NOTE: The provided CLLI/member number can be the controller or a terminator of a broadcast call.

Command name: WIDEBAND

WIDEBAND

Command type

Unlisted MENU

Command target

SUPERNODE and BRISC

Command availability

RES

Command description

The WIDEBAND command is a CI command. It displays the circuits involved in a wideband call in two columns. A column for the circuits on the originating side and a column for the circuits on the terminating side of the wideband call.

Warning

None.Command syntax

WIDEBAND <trunk clli> <trunk member #>

Responses

“Circuit not involved in a wideband call”.

Explanation:
The provided trunk is not currently involved in an active wideband call.

System action:
None

User action:
None.

Notes

The provided trunk cllli can be a originator or terminator of the wideband cal.

Examples

```
WIDEBAND WBOTG 1

Assume WBOTG 1 is the master circuit on the terminating side of
a two circuit wideband call.

CI> WIDEBAND WBOTG 1

This circuit involved in a 2 circuit wideband call
   ORIGINATING CKTS            TERMINATING CKTS
        WBOTG 1                  613 745 6785
```

Command name: QPHINFO

QPHINFO

Command type

Unlisted MENU

Command target

SUPERNODE and BRISC

Command availability

Command description

QPHINFO CI commands lists all the terminations of the posted DN involved in a packet call. This command can be invoked only from LTPISDN screen.

Warning

None

Command syntax

QPHINFO

Responses

“Command valid only for DMS PH DNs“

Explanation:
The posted DN is currently not engaged in a packet call.

System action:
None

User action:
None

Notes

Examples

The packet call is setup between 7227363 and 7224572.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt   SysB   NOSMDR   1Link   1RCC2     .       .     133 GC   1 Maj    .
@  M     @  M     @ *C*    @        @ *C*       @             *C*    @  M
LTPISDN
 0 Quit      POST  1     DELQ            BUSYQ         PREFIX
 2 Post_
 3           LCC PTY RNG .....LEN.........     DN    STA F S LTA  TE  RESULT
 4           ISDN LOOP   HOST 67 0 09 12     722 7363 IDL     613 722 4572
 5
 6 Sustate   Terminating DNs for DN 613 722 7363
 7 BCHCON    ----------------------------------------
 8 Ltloopbk  613 722 4572      PVC
```

Command name: POST (LTP)

Command type

MENU

Command target

SUPERNODE and BRISC

Command availability

RES

Command description

Currently, the POST command in the Line Test Position (LTP) MAP level requires a Local Number as input and displays the Local Number as part of the output screen. The Linked DN associated with the posted DN will now be displayed as full national number after the implementation of this feature.

Warning

N/A

Command syntax

post d DN - Posted by DN

post M DN - Posted by DN datafilled in table MDNGRP.

post H DN - Posted by DN datafilled in table HUNTGRP

Responses

The posted DN gets displayed on the screen.

Explanation:

System action:
The system will post the local number (up to 8 digits) in the ‘Posted DN’ area. The linked DN associated with the posted DN will get displayed in the ‘Linked DN’ area.

User action:
N/A

Notes

N/A

Examples

Set up a call between 6686160 and 6686161.

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt    .     AMA  E    .      1PDTC    .       .       .       .       .
   M
LTP
 0 Quit      POST        DELQ            BUSYQ         PREFIX
 2 Post_
 3          LCC PTY RNG .....LEN.........     DN    STA F S LTA  TE  RESULT
 4           ISDN LOOP   HOST 40 0 00 22     668 6160 CPB     020 668 6161
 5 Bsy
 6 RTS
```

Command name: POST (LTPDATA)

Command type

MENU

Command target

SUPERNODE and BRISC.

Command availability

RES

Command description

Currently, the POST command in the LTPDATA MAP level requires a Local Number as input and displays the Local Number as part of the output screen. The Linked DN associated with the posted DN will now be displayed as full national number after the implementation of this feature.

Warning

N/A

Command syntax

post d DN - Posted by DN

post M DN - Posted by DN datafilled in table MDNGRP.

post H DN - Posted by DN datafilled in table HUNTGRP

Responses

Explanation:

System action:
The system will post the local number (up to 8 digits) in the ‘Posted DN’ area. The linked DN associated with the posted DN will get displayed in the ‘Linked DN’ area.

User action:
N/A

Notes

Examples

Set up a data call between 7227363 and 734456712345

```
 CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt   SysB   NOSMDR   1Link   1RCC2     .       .     133 GC   1 Maj    .
@  M     @  M     @ *C*    @        @ *C*       @             *C*    @  M
LTPData
 0 Quit      POST  1     DELQ            BUSYQ         PREFIX
 2 Post_
 3           LCC PTY RNG .....LEN.........     DN    STA F S LTA  TE  RESULT
 4 Equip_    ISDN LOOP   HOST 67 0 09 12     722 7363 IDL     613 734456712345
 5 Connect_
 6 Sustate
 7 LoopBk_
```

Command name: POST (LTPISDN)

Command type

MENU

Command target

SUPERNODE and BRISC

Command availability

RES

Command description

Currently, the POST command in the LTPISDN MAP level requires a Local Number as input and displays the Local Number as part of the output screen. The Linked DN associated with the posted DN will now be displayed as full national number after the implementation of this feature.

Warning

N/A

Command syntax

post d DN - Posted by DN

post M DN - Posted by DN datafilled in table MDNGRP.

post H DN - Posted by DN datafilled in table HUNTGRP

Responses

Explanation:

System action:

The system will post the local number (up to 8 digits) in the ‘Posted DN’ area. The linked DN associated with the posted DN will get displayed in the ‘Linked DN’ area.

User action:

N/A

Notes

Examples

Set up a call between two ISDN terminals 7227363 and 7224572

```
 CM       MS      IOD      Net       PM      CCS      Lns      Trks     Ext      APPL
CM Flt    SysB    NOSMDR   1Link    1RCC2     .        .      133 GC   1 Maj     .
@  M      @  M      @ *C*    @         @ *C*        @               *C*    @  M
LTPISDN
 0 Quit       POST  1      DELQ             BUSYQ          PREFIX
 2 Post_
 3            LCC PTY RNG .....LEN.........      DN    STA F S LTA  TE  RESULT
 4            ISDN LOOP   HOST 67 0 09 12     722 7363 IDL     613 722 4572
 5
 6 Sustate
 7 BCHCON
```

Command name: POST (TTP)

Command type

MENU

Command target

SUPERNODE & BRISC

Command availability

RES

Command description

On the existing TTP level of MAP, user can post a specific trunk CLLI plus the member number, and the status of the trunk plus the status/connection information (if available) is displayed. When a call is in progress the DN of the of the line is displayed as the connection information. Prior to this feature the DN is displayed as a local number (office + station code). In this feature the DN will be displayed as the full national number in the connection information feild.

Warning

N/A

Command syntax

post g clli

post t clli ckt . . . ckt

Responses

Explanation:

System action:
The system will post the trunk group clli name on the MAP. The linked DN associated with the trunk group ckt is displayed as the connection information.

User action:

Notes

None

Examples

Set up a call from a line to trunk WBINC 1.

```
TTP        |
0 Quit     | POST      5      DELQ  D 4  BUSYQ  A 59  DIG
2 Post_    | TTP       14       0      5     0      2      10
3 Seize_   | CKT  TYPE     PM NO.   COM LANG  STA S R DOT TE RESULT
4          | 2W S7 S7  DTC 0 10 0    WBINC 1   CPB  613 596 02591234
5 Bsy_     |
6 RTS_     |
7 Tst_     |
```

Alarms

Alarm name:

Not Applicable

Conditions required to raise the alarm

Not Applicable.

Duration of the alarm

Not Applicable.

AG4490mm

Directories

N/A

Commands

Table of New/Modified Commands

Table 4-31 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ADDOFC (LINESEL)	CHANGED		SALINESELECTDIR
DELOFC (LINESEL)	CHANGED		SALINESELECTDIR
FULLOFC (LINESEL)	NEW		SALINESELECTDIR

Command name: ADDOFC

Command type

MENU

Command target

SUPERNODE and BRISC

Command availability

Command description

Currently the ADDOFC command in the Line Selection MAP level requires a 3 digit office code (North American format) as an input parameter and displays the selected office if valid on the Line Selection MAP screen. This feature proposes to make the following changes to the ADDOFC command :

- Accept an office code of variable length (up to 7 digits) and display it on the Line Selection MAP screen if valid.
- Prompt the user to enter the area and office code (up to 14 digits) as a parameter in case of duplicate office codes.
- Accept area and office codes of variable length as an input parameter.

Replace all references to the North American dial plan namely ‘NNX’ which refers to the office code in the North American DN format with ‘OFC’.

Duplicate office code resolution will not be done for the North American DN system.

Warning

N/A

Command syntax

AddOfc <office code> or <area code + office code>

Area code : 1 - 7 digits

Office code : 0 - 7 digits

Parameter validation is done depending on the office parameter ACTIVE_DN_SYSTEM in the Table OFCENG. The VarDN dial plan is activated by setting ACTIVE_DN_SYSTEM to 'UNIVERSAL'.

Parameter definitions

Table 4-32 ADDOFC Parameter Definitions

PARAMETER	VALUE	DEFINITION
Office code	String of digits	Default
Area + Office code	String of digits	Default

Responses

Explanation:
The response is seen under the 'OFFICE CODE ' heading on the Line Selection MAP screen.

System action:
The system responds by displaying the selected office code on the Line Selection MAP screen. In case of duplicate office codes the system responds like this :

DUPLICATE OFFICE CODES DETECTED : ENTER AREA and OFFICE CODE :

prompting the user to enter the area and office code.

User action:
The user to enter both area and office code to resolve ambiguity.

Examples

An example of the Line Selection MAP screen with the ADDOFC command :

```
 Ofc  OFFICE
 Mtr  On        SERVICE CLASS  OFFICE CODE  SITE  LM_DRAWER  CUST-GROUP

LINESEL                             632
 0 SASelect                        6863451
 2 AddCos_
 3 DelCos_
 4
 5 AddOfc_
 6 DelOfc_
 7
 8 LNSMP
 9
10 AddSite_
11 DelSite_
12 AddDwr_    AddOfc
13 DelDwr_    Next par is: <The Office code of a local DN> STRING
14 Addcust_   Enter: <Office Code of a local DN>
15 Delcust_
16 Reset
17
18 ATTCon_
  TEAM_0
Time  03:54 > 554231
```

Alarms

N/A

Command name: DELOFC

Command type

MENU

Command target

SUPERNODE and BRISC

Command availability

RES

Command description

Currently the DELOFC command in the Line Selection MAP level requires a 3 digit office code (North American format) as an input parameter and deletes the selected office if valid from the Line Selection MAP screen. This feature proposes to make the following changes to the DELOFC command :

- Accept an office code of variable length (up to 7 digits) and delete it from the Line Selection MAP screen if valid.
- Prompt the user to enter both area and office code (up to 14 digits) in case of duplicate office codes.
- Accept both area and office codes of variable length as an input parameter.

Replace all references to the North American dial plan namely ‘NNX’ which refers to the office code in the North American DN format with ‘OFC’.

Duplicate office code resolution will not be done for the North American DN system.

Warning

N/A

Command syntax

DelOfc <office code> or <area code + office code>

Area code : 1 - 7 digits

Office code : 0 - 7 digits

Parameter validation is done depending on the office parameter ACTIVE_DN_SYSTEM in the Table OFCENG. The VarDN dial plan is activated by setting ACTIVE_DN_SYSTEM to ‘UNIVERSAL’.

Parameter definitions

Table 4-33 DELOFC Parameter Definitions

PARAMETER	VALUE	DEFINITION
Office code	String of digits	Default
Area + Office code	String of digits	Default

Responses

Explanation:
The response is seen under the ‘OFFICE CODE ‘ heading on the Line Selection MAP level screen.

System action:
The system responds by deleting the selected office code from the Line Selection MAP screen. In case of duplicate office codes the system responds like this :

DUPLICATE OFFICE CODES DETECTED : ENTER AREA and OFFICE CODE
:prompting the user to enter the area and office code.

User action:
The user to enter both area and office code to resolve ambiguity.

Examples

An example of the Line Selection MAP screen with the DELOFC command :

```
 Ofc  OFFICE
 Mtr  On        SERVICE CLASS  OFFICE CODE  SITE  LM_DRAWER  CUST-GROUP

LINESEL                            632
 0 SASelect                       6863451
 2 AddCos_                         554231
 3 DelCos_
 4
 5 AddOfc_
 6 DelOfc_
 7
 8 LNSMP
 9
10 AddSite_
11 DelSite_
12 AddDwr_   DelOfc
13 DelDwr_   Next par is: <The Office code of a local DN> STRING
14 Addcust_  Enter: <Office Code of a local DN>
15 Delcust_
16 Reset
17
18 ATTCon_
  TEAM_0
Time  03:54  > 554231
```

Alarms

N/A

Command name: FULLOFC

Command type

UNLISTED MENU

Command target

SUPERNODE and BRISC

Command availability

RES

Command description

A new hidden command ‘FULLOFC’ is provided to the Line Selection MAP level. The office codes selected by the ADDOFC/DELOFC commands cannot be uniquely identified unless the area code is also displayed. This new hidden command displays the area and office codes of all the selected offices.

Warning

N/A

Command syntax

FULLOFC

Parameter definitions

N/A

Responses

Explanation:
The response is seen on the Line Selection MAP level screen.

System action:
The system displays the area and office codes of all the selected offices.

User action:
N/A

Examples

An example of the Line Selection MAP screen with the ‘FULLOFC’ command :

```
 Ofc  OFFICE
 Mtr  On        SERVICE CLASS  OFFICE CODE  SITE  LM_DRAWER  CUST-GROUP

LINESEL                            632
 0 SASelect                      6863451
 2 AddCos_
 3 DelCos_
 4
 5 AddOfc_
 6 DelOfc_
 7
 8 LNSMP
 9
10 AddSite_
11 DelSite_
12 AddDwr_    FULLOFC
13 DelDwr_    The following area office codes have been selected:
14 Addcust_   103-632, 104521-6863451
15 Delcust_
16 Reset
17
18 ATTCon_
  TEAM_0
Time  03:54  >
```

Alarms

N/A

AG4654mm.aa06

Directories

NO CHANGES

Table of New/Modified Directories

Table 4-34 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

NO CHANGES

Accessing directory:

NO CHANGES

To access

NO CHANGES

To return to CI

NO CHANGES

Commands

Table of New/Modified Commands

Table 4-35 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
IMAGENAME	CHANGED		PROGDIR
PRESWACT	CHANGED		BCSUPDATE

Command name: IMAGENAME

Command type

This is a NON-MENU command.

Command target

Not target dependent

Command availability

RES

Command description

IMAGENAME command accesses internal BCS Number based software data specific to load's software build context. BCS Number is no longer sufficient to identify a DMS node's (PM/CM) load context. DMS software evolution to development in independently releasable layers has created new context parameters such as;

Product Name:
Describe this as per NT PCA database user interface guide does

Load Ordering Codes (PCL/PPL):
Describe this as per NT PCA database user interface guide does

Layers:
Describe this as per NT PCA database user interface guide does

Warning

NOT APPLICABLE

Command syntax

No change.

Parameter definitions

Table 4-36 IMAGENAME Parameter Definitions

PARAMETER	VALUE	DEFINITION
n/a		

No command input parameters exists.

Responses

<processor> BCS <bcs_number> <bcs_number_edition> built on <.date & time.. > using <.package list id...>
PRODUCT:<Product name& version>
LOAD:< PCL/PPL name& version>
LAYER:<up to 12 char Layer name& version>
LAYER:<up to 12 char Layer name& version>
LAYER:<up to 12 char Layer name& version>
LAYER:<up to 12 char Layer name& version>
LAYER:<up to 12 char Layer name& version>

Explanation:

For backward compatibility as BCS Number internal DMS software couplings are removed, the output fields including and following the “BCS” fields are maintained.

EXISTING OUPUT FIELDS/PARAMETERS
<processor>: This output field/parameter is not changed by this feature.
BCS: This output parameter is not changed by this feature.
<bcs_number>: This output parameter is not changed by this feature.
<bsc_number_edition>: This output parameter is not changed by this feature.

NEW OUTPUT FIELDS/PARAMETERS

These fields appear on all DMS CM loads. However if accessing a series 3 DMS PM they are visible in all DMS SOS Series 3 PM/ISN

PRODUCT:<Product name & version>

LOAD:< PCL/PPL name & version>

LAYER:<Layer name & version>

System action:

This is a passive command. It simply displays internally stored software data loaded in at initial Loadbuild time and appropriately adjusted upon load increment time for all BNR/NT software vault originated loads.

User action:

Record data as appropriate.

Notes

None

Examples

The following is an example of the CDN type Product. Note the BCS Number is still incremented when the BAS layer is incremented.

CM BCS 39 BA
PRODUCT:CDN00.0005
LOAD: CDN0.0005
LAYER:CNA.05.BG
LAYER:CCM.05.BG
LAYER:TL.05.BA
LAYER:BAS.06.BA

Command name: PRESWACT

Command type

This is a NON-MENU command. No change to command type done.

Command target

No changes to command target.

Command availability

Indicate if command is RES, NONRES or OTHER. If OTHER, specify (for example: in-house tool).

This is a load RES command, meaning it is resident in all DMS CM loads

Command description

A new preswact step is added that transfers CM load context data to the XPM based peripherals as well as to the Series 3 SOS based nodes. This data is necessary in the PMs (as was CM BCS Number) in order to properly drive the peripheral interworking logic with the about to be active CM load context.

The new step is called VR_PRESWACT_TRANSFER.

DMS PM nodes that are not offline and capable of accepting CM data that do not properly receive the CM load context data are reported in this Preswact steps output. In some cases of Series 3 download errors LOGS are also reported and this Preswact step ‘s output info will refer to this appropriately.

This Preswact step will fail if any of the data receiving capable nodes (XPM or Series 3 SOS type) fails to receive the data.

Upon this Preswact step failure, recovery action is to review the PM nodes that failed to receive the data. The failed nodes that are inservice will need immediate corrective maintenance, as discussed below.

Warning

No changes.

Command syntax

No changes.

Parameter definitions

Table 4-37 PRESWACT Parameter Definitions

PARAMETER	VALUE	DEFINITION
n/a		

No command inputs are changed by this feature.

Responses

Successful step output and unsuccessful step outputs are given.

Successful Preswact Step Output:

“ STARTING CM context download to PMs...
Beginning CM context download to XPM PMs...
Successfully completed CM context download to XPM PMs...
CM context download to PMs FINISHED.”

Explanation:
The preswact step distributed the CM context data to the Series 3 and XPM PMs successfully.

System action:
Continues to next Preswact step.

User action:
NONE

Unsuccessful Preswact Step Output:

XPM type failure

“ STARTING CM context download to PMs...
BEGINNING CM context download to XPM PMs...
BEGINNING CM context download to SERIES 3 PMs...
***** FAILED CM context download to SERIES 3 PMs *****...
FAILED XPM units list START...
<XPM node name> <XPM node number> <XPM unit number>,
<XPM node name> <XPM node number> <XPMunit number>,

FAILED Series 3 units list END
CM context download to PMs FINISHED.”

Explanation:
The preswact step distributed the CM context data to the Series 3 and XPM PMs successfully.

System action:
Continues to next Preswact step.

User action:
NONE

Notes

None

Examples

Alarms

NOT APPLICABLE

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN0930mm.aa14

Directories

None

Table of New/Modified Directories

Table 4-38 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	CHANGED	Not Applicable		

Accessing directory:

There are no new directories.

To access

Not Applicable.

To return to CI

Not Applicable.

Commands

SRDBUPD

Table of New/Modified Commands

Table 4-39 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SRDBUPD	CHANGED	Not Applicable	PROGDIR (unchanged)

Command name: SRDBUPD

Command type

Non-menu

Command target

Both

Command availability

Resident.

Command description

The Selective Route Database Update (SRDBUPD) command allows a user to update Table E911SRDB from either a tape or disk.

The tape option (SRDBUPD TAPE) is used for initial loading and updating Table E911SRDB from a peripheral data storage processor (PDSP) formatted magnetic tape.

The file option (SRDBUPD FILE) is used for initial loading and updating Table E911SRDB from an automatic location identification (ALI) database.

The procedures which are used by the file transfer and update mechanisms will be modified to handle 5-digit ESN and either an NPA or NPD (either one to be present).

The command syntax remains unchanged however the NPA option will be added.

Warning

No new warnings.

Command syntax

No change. For more information on SRDBUPD command syntax please see E911 Maintenance Guide and E911 Translations Guide, which are referenced in the FN section of this document.

Parameter definition

Table 4-40 SRDBURP Parameter Definitions

PARAMETER	VALUE	DEFINITION
No new parameters	Not Applicable	Not Applicable

Responses

No changes.

Notes

None.

Examples

Not necessary, since there are no changes to the syntax of the SRDBUPD command.

Alarms

No changes.

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Directories

RATEDIR, IRATEDIR

Table of New/Modified Directories

Table 4-41 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
RATEDIR	Changed		BOTH	RES
IRATEDIR	Changed		BOTH	RES

Accessing directory:RATEDIR

To access

RATE

To return to CI

QUIT

Accessing directory:IRATEDIR

To access

IRATE

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 4-42 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CAT	Changed		RATEDIR
CDCTRY	New		RATEDIR
CDCARR	New		RATEDIR
CTRYDIR	New		IRATEDIR
CDCTRY	New		IRATEDIR
CDCARR	New		IRATEDIR

Command name:CAT

Command type

Non-menu

Command target

Both

Command availability

RES

Command description

This command sets the call origination type for a “call” to be rated by the RATE tool.

Warning

None

Command syntax

```
>q cat
QUERY OR UPDATE THE CALL-TYPE VARIABLE
(EG. CAT, CAT OH).
NUMERIC PARAMETER VALUES MUST BE ENCLOSED IN QUOTES
(EG. CAT '1155')
Parms: [<CALL TYPE> STRING]
LEGAL PARAMETERS ARE IN THE FOLLOWING LIST...
TYPE IS CALL_ORIGINATION  {UNSPEC,OH,OA,DD,CAMA,RCAMA,DELAY,121,131,
                           141,151,161,171,181,191,555,1150,1151,
                           1152,1153,1154,1155,1156,1157,1158,1159,
                           1160,1161,1162,TS,TSUB,APS,ALM,INTC,211,
                           311,411,511,611,711,811,911,MOBILE,999,
                           HOM555,FOR555,SPARE1,SPARE2,SPARE3,
                           SPARE4,SPARE5,OOC141,OOC151,OOCOVS,
                           OOCMAN,OOC801,OOCDELAY,OOCDB,INTS,
                           COINTEST,BOOK,DATABASE,CDIR}
```

Parameter definitions

Table 4-43 CAT Parameters

PARAMETER	VALUE	DEFINITION
call type	listed above	Defines the call origination type for the "call" to be rated. Expanded to include the new CDIR call origination.

Responses

No new responses.

Response

Not applicable

Explanation:

System action:

User action:

Notes

None

Examples

```
>CAT CDIR
```

Command name:CDCTRY

Command type

Non-menu

Command target

Both

Command availability

RES

Command description

This command sets the country of origin for the “call” to be rated by the RATE tool.

Warning

None

Command syntax

```
>q CDCTRY
QUERY OR UPDATE THE COUNTRY VARIABLE
(EG. CDCTRY, CDCTRY 069).
Parms: [<country code>]
```

Parameter definitions

Table 4-44 CDCTRY Parameters

PARAMETER	VALUE	DEFINITION
country code	up to 3 digits, 0-9	country of origin for the call to be rated.

Responses

No new responses

Response

Not Applicable

Explanation:

System action:

User action:

Notes

Not Applicable

Examples

```
>CDCTRY 069
```

Command name:CDCARR

Command type

Non-menu

Command target

Both

Command availability

RES

Command description

This command sets the carrier of origin for the “call” to be rated by the RATE tool.

Warning

None

Command syntax

```
>q CDCARR
QUERY OR UPDATE THE CARRIER VARIABLE
(EG. CDCARR, CDCARR 0111).
Parms: [<carrier id code>]
```

Parameter definitions

Table 4-45 CDCARR Parameters

PARAMETER	VALUE	DEFINITION
carrier id code	up to 4 digits, 0-9	carrier of origin for the call to be rated.

Responses

No new responses

Response

Not Applicable

Explanation:

System action:

User action:

Notes

Not Applicable

Examples

```
>CDCARR 0111
```

Command name:CTRYDIR

Command type

Non-menu

Command target

Both

Command availability

RES

Command description

This command sets the Country Direct variable to mark the call as Country Direct for the rating tool, IRATE.

Warning

None

Command syntax

```
>q ctrydir
QUERY OR UPDATE THE CTRYDIR VARIABLE
(EG. CTRYDIR, CTRYDIR Y).
Parms: [<country direct>]
```

Parameter definitions

Table 4-46 CTRYDIR Parameters

PARAMETER	VALUE	DEFINITION
country direct	Y/N	Whether or not the “call” to be rated is a Country Direct call.

Responses

No new responses

Response

Not applicable

Explanation:

System action:

User action:

Notes

None

Examples

```
>CTRYDIR Y
```

Command name:CDCTRY

Command type

Non-menu

Command target

Both

Command availability

RES

Command description

This command sets the country of origin for the “call” to be rated by the IRATE tool.

Warning

None

Command syntax

```
>q CDCTRY
QUERY OR UPDATE THE COUNTRY VARIABLE
(EG. CDCTRY, CDCTRY 069).
Parms: [<country code>]
```

Parameter definitions

Table 4-47 CDCTRY Parameters

PARAMETER	VALUE	DEFINITION
country code	up to 3 digits, 0-9	country of origin for the call to be rated.

Responses

No new responses

Response

Not Applicable

Explanation:

System action:

User action:

Notes

Not Applicable

Examples

```
>CDCTRY 069
```

Command name:CDCARR

Command type

Non-menu

Command target

Both

Command availability

RES

Command description

This command sets the carrier of origin for the “call” to be rated by the IRATE tool.

Warning

None

Command syntax

```
>q CDCARR
QUERY OR UPDATE THE CARRIER VARIABLE
(EG. CDCARR, CDCARR 0111).
Parms: [<carrier id code>]
```

Parameter definitions

Table 4-48 CDCARR Parameters

PARAMETER	VALUE	DEFINITION
carrier id code	up to 4 digits, 0-9	carrier of origin for the call to be rated.

Responses

No new responses

Response

Not Applicable

Explanation:

System action:

User action:

Notes

Not Applicable

Examples

```
>CDCARR 0111
```

Alarms

Alarm name:

Not applicable

Conditions required to raise the alarm

Duration of the alarm

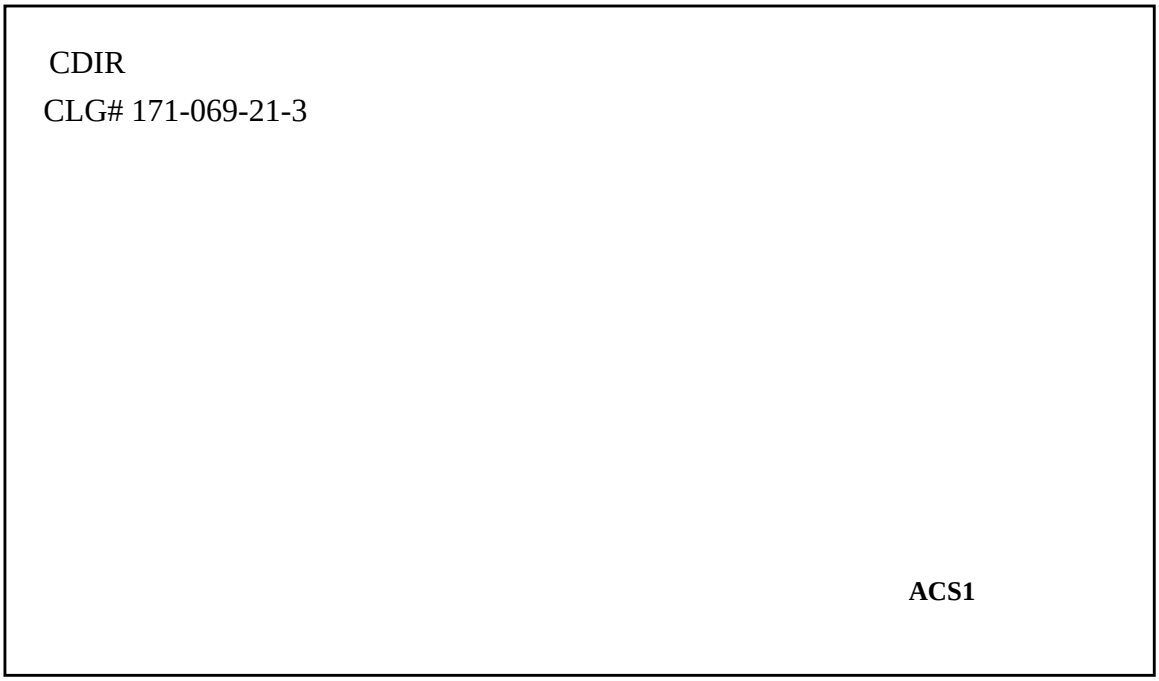
Operator Screen Display Changes

TOPS IV Changes

To show that a call is Country Direct, “CDIR” is displayed in the TOPS IV call origination field. Please note that the new country of origin display is not supported for TOPS IVs.

If the Country Direct digit stream is treated as the calling number (CDIR_DEDICATED_DN = N), special formatting is provided to make the digit stream more readable. Because the TOPS-IV only supports 12 character calling numbers, a dash is placed between the access code and the country code, between the country code and the carrier of origin, and between the carrier of origin and the DN. A number sent to a TOPS-IV position is truncated at 12 characters, including the dashes. Please note that up to 15 digits are still used for the rest of TOPS call processing.

Figure 4-10 TOPS IV Display



TOPS MP Changes

If the Country Direct digit stream is treated as the calling number, special formatting is provided to make the digit stream more readable. Because the TOPS-MP only supports 15 character calling numbers, dashes are placed between the access code and country code, and between the country code and carrier of origin, and the carrier of origin and the DN. A number sent to a TOPS-MP position is truncated at 15 characters, including the dashes. Please note that up to 15 digits are still used for the rest of TOPS call processing.

Please refer to DDOC AN1443 - TPC 05 Human Machine Interface Changes for details on the other TOPS MP Screen Display changes.

OPP Changes

If the Country Direct digit stream is treated as the calling number, special formatting is provided to make the digit stream more readable. The OPP Protocol supports a calling number of up to 254 characters. An OPP nil character is placed between the access code and country code, between the country code and carrier of origin, and between the carrier of origin and the DN. It is up to the position whether or not dashes are displayed. The digit stream is not truncated for OPP Compliant positions.

Please refer to vendor specific documentation for details on the other OPP Screen Displays. For changes to the OPP Protocol, please see *NIS: Q214-1* - Open Position Protocol.

AN1443MM.aa08

Feature title

TPC05:Human Machine Interface Changes

The MM section of this feature document discusses the human machine interface changes introduced in the TPC05 stream. The following are included:

- Country Direct Service
- Support for Directory One (D1)
- Connected/Not Connected Indications

A detailed description of each feature element can be found in the following pages.

Country Direct Service

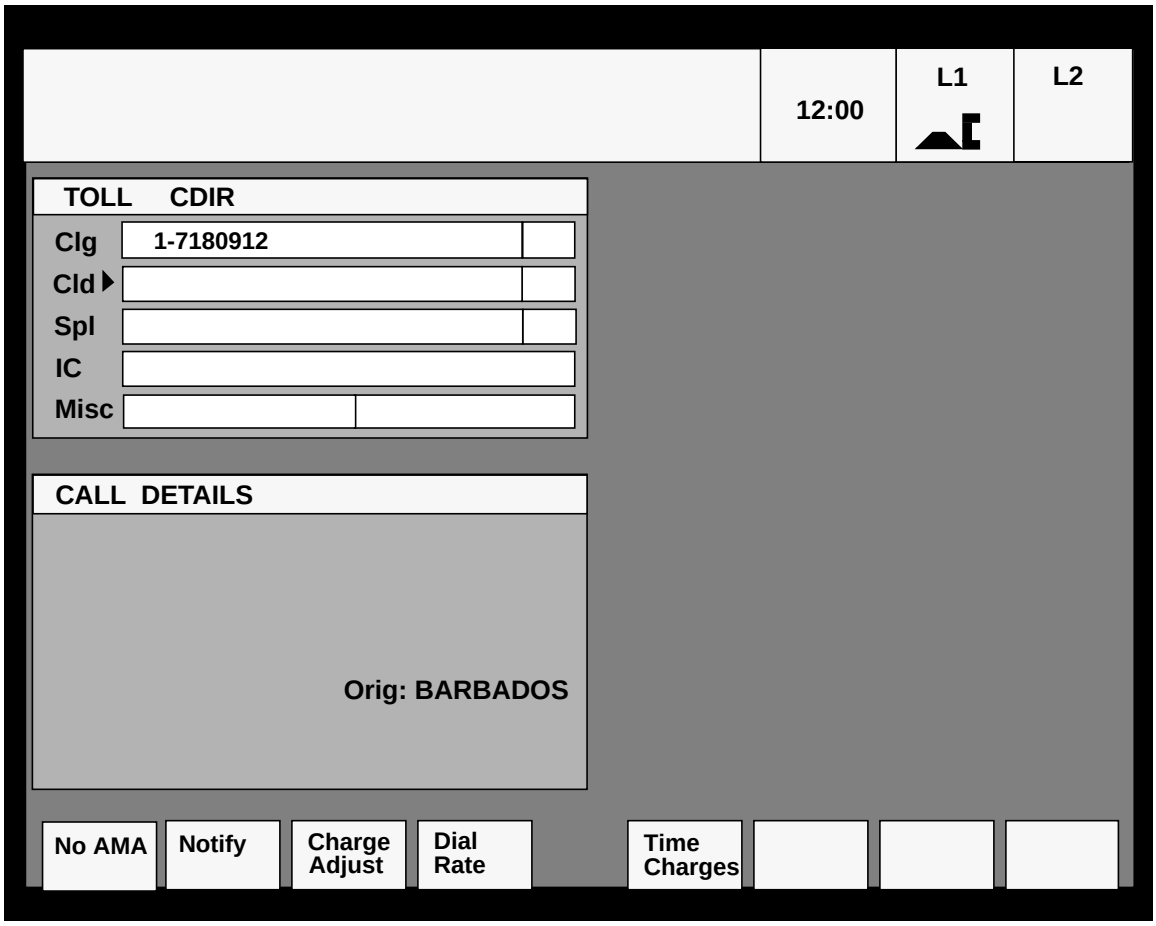
Background

A Country Direct call should be treated like a 0- call from the operator's standpoint. With Country Direct, the operator still needs to prompt the subscriber for the called number and key it in. There are some service and billing restrictions (See DMS DDOC AN1340 for details).

TOPS MP changes

Upon call presentation, a Country Direct call would appear as in the following figure:

Figure 4-11 This example call shows a Country Direct call where the country of origin is Barbados.



Note that the call type bar in the call processing window indicates that the call is country direct (CDIR). The call details window pops up automatically, displaying the calling party's country of origin. The country name is in uppercased English characters (and digits). The length of the country name is restricted to eight characters or less.

The following table shows the translations for the country direct service strings.

Table 4-49 TOPS MP Country Direct Translations

Language	Indication for country direct call type in call processing window	Label for country of origin in call details window
English	"CDIR" short for "Country Direct"	"Orig" short for "Origin"
French	"PDIR" short for "Patrie Direct"	"Orig" short for "Origine"

Table 4-49 TOPS MP Country Direct Translations

Language	Indication for country direct call type in call processing window	Label for country of origin in call details window
Spanish	“PDIR” short for “País Directo”	“Orig” short for “Origen”

D1

Background

D1 is a NT/NAS DA product. It is differentiated in part by its new display and search features. D1 is compatible with a variety of operator terminals with some terminals supporting more D1 features than other terminals.

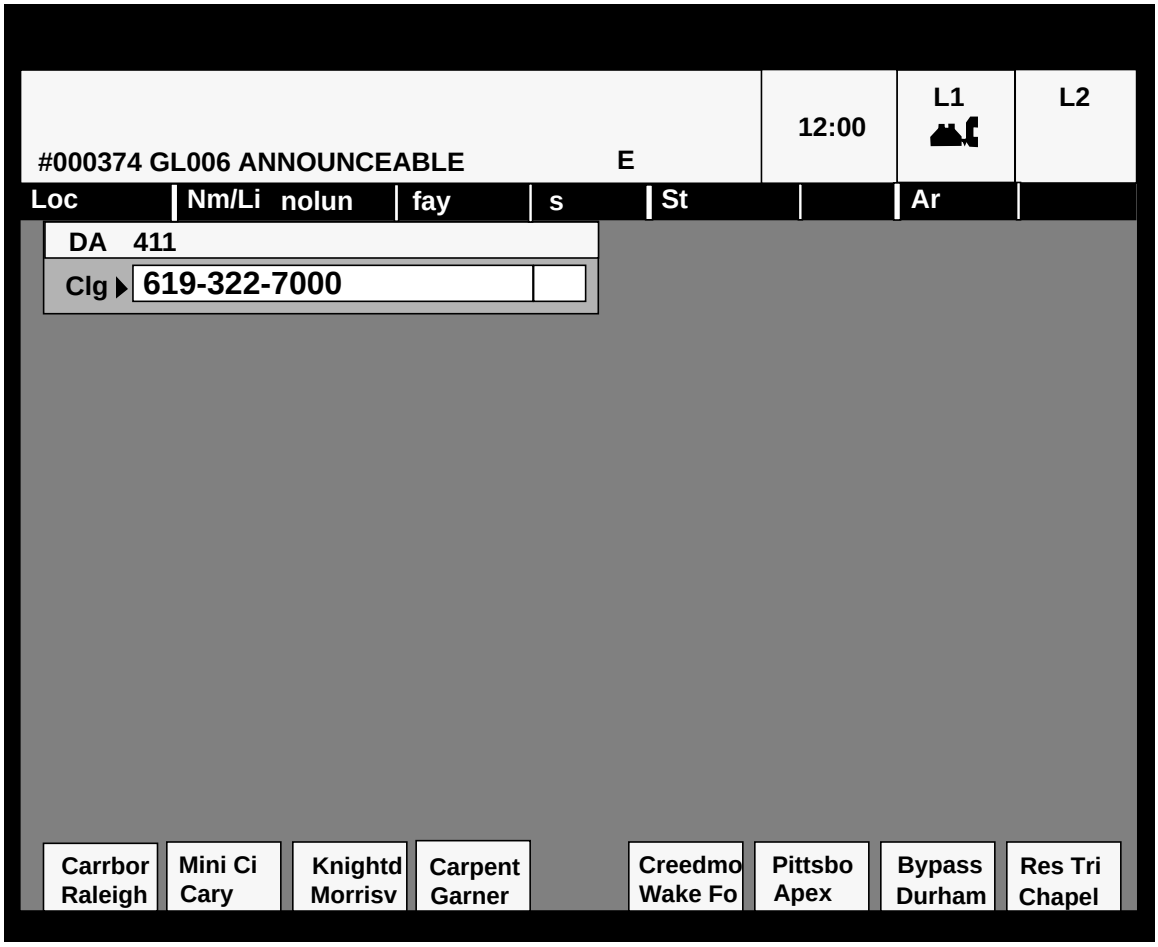
TOPS MP Changes

To enhance support of D1, support for two new search keys is being provided. These search keys are ‘Dropped Field Search’ and ‘Category Search’.

Dropped Field Search

When doing a ‘Dropped Field Search’, portion(s) of the existing topline are ignored when doing the search. For example in the figure below, the name2 field, ‘fay’, and the name3 field, ‘s’, could be ignored. Determination of which field to drop is controlled by D1 and is customer datafillable on the DAS. After the search has completed, the listings are displayed and a search type (e.g. **RES**, **BUS**, **GOV**,...) is displayed. With D1, this search type is also customer datafillable at the DAS. A typical search type display for ‘Dropped Field Search’ is ‘**RESD**’. See NT/NAS D1 documentation for more details on this new search key.

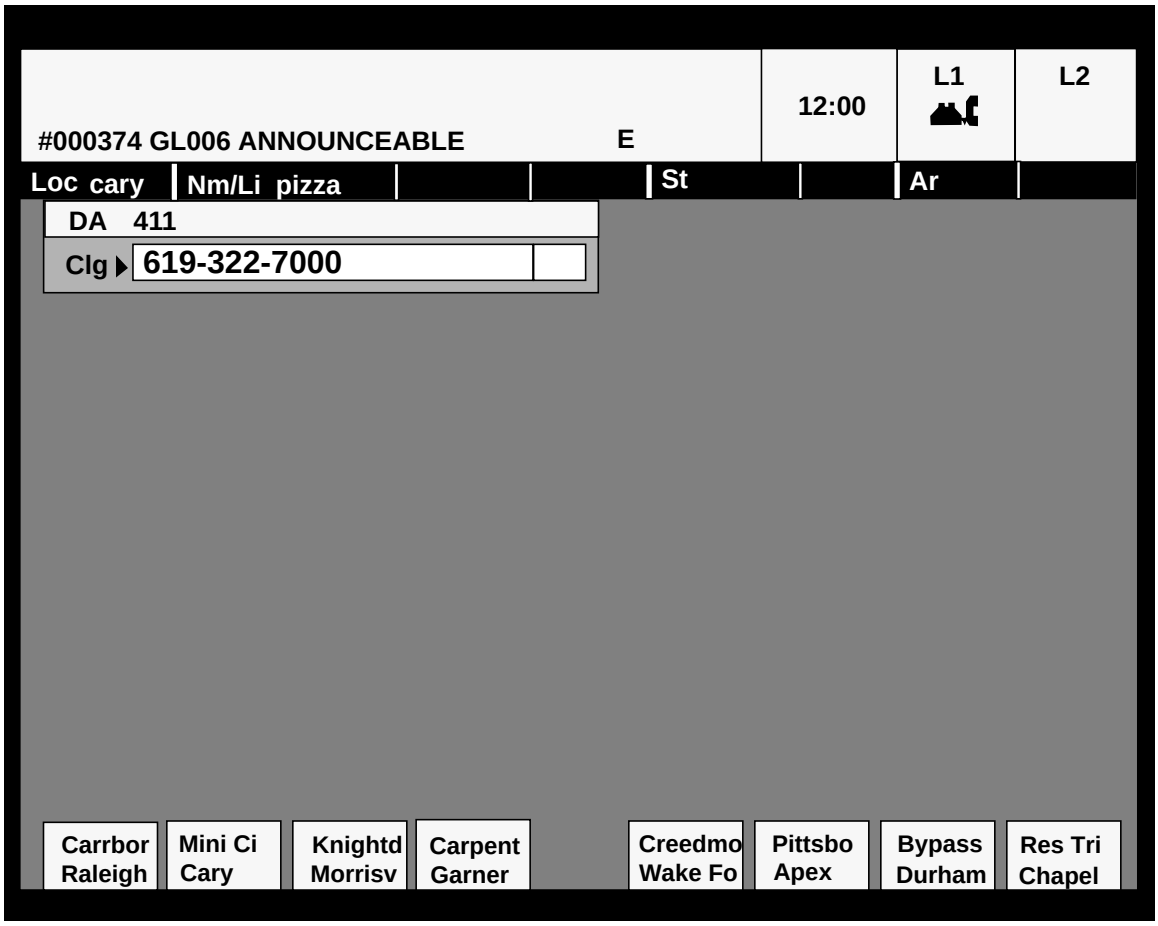
Figure 4-12 Example topline name field entry for Dropped Field Search.



Category Search

To do a ‘Category Search’, category information should be entered in the DA topline name field(s) (see figure below) and then the new search key can be pressed. Typical categories could be pizza, dentist, doctor, ambulance,... After the search has completed, the listings are displayed and a search type (e.g. **RES**, **BUS**, **GOV**,...) is displayed. With D1, this search type is customer datafillable at the DAS. A typical search type display for ‘Category Search’ is ‘**CAT**’. See NT/NAS D1 documentation for more details on this new search key.

Figure 4-13 Example topline name field entry for Category Search



TOPS TAMI Changes

The TPC TAMI has been changed to support the ‘Dropped Field Search’ and ‘Category Search’ keys. The new search keys are not part of the default MP keyboard configuration, but can be datafilled to any MP key.

Prior to this feature, application keys 19 and 20 were not used in NT DA. In TPC05, these application keys now correspond to ‘Category Search’ and ‘Dropped Field Search’, respectively. The following table shows the mapping of the NT DA application keys including the two new searches

.

Table 4-50 NT DA Application Applkey Map

applkey	NT DA	applkey	NT DA
1	location	17	addr telno
2	name	18	block audio
3	street	19	**category**
4	area	20	**dropped field**
5	residence	21	invalid
6	business	22	invalid
7	special	23	invalid
8	government	24	invalid
9	intercept	25	invalid
10	audio	26	invalid
11	alt lang	27	invalid
12	phonetic	28	invalid
13	keyword	29	invalid
14	full set	30	invalid
15	location menu	31	invalid
16	expanded loc	32	invalid

Datafilling the new search keys (i.e. assigning the new searches to physical MP keys) is done at the TAMI. From the top level TAMI screen, access “TPC DATAFILL” (2), then access “DEFINE POSITION SETTINGS” (1), and then access “DEFINE KEYBOARD” (4). At this level, paging through the screens of MP keys is accomplished with PF1 and PF2. The newly defined applkeys, 19 and 20, may be assigned to any of the physical MP keys, for example MP keys ‘54 and 55’. (See the next two figures.) After datafilling the new search keys, the positions must be BSY’d and RTS’d. For integrated TPCs, BSY/RTS is done at the MAP (see MAP level MAPCI;MTC;PM;POST TPC x;MP;POST P y). For standalone TPCs, BSY/RTS is done at the TAMI (see the “POSITION STATUS/CONTROL” (3) level under the TAMI top level screen).

Figure 4-14 TAMI Define Keyboard example.

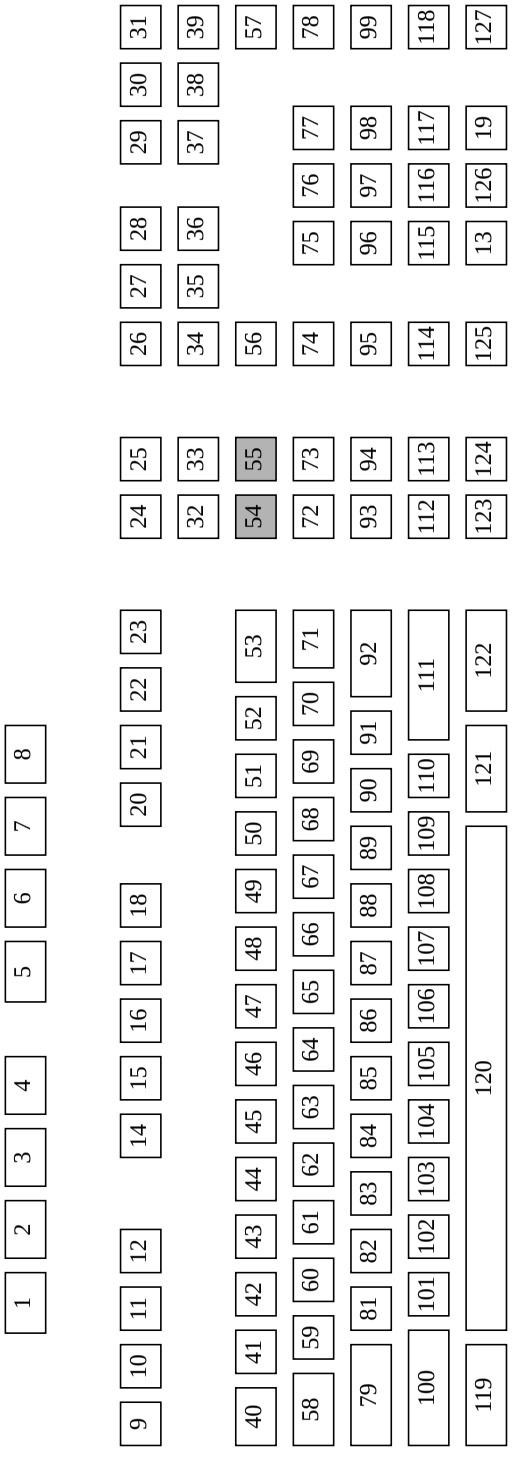
DEFINE KEYBOARD

NOTE 1: Changes will not take effect for a position until it is Bsy'd and RTS'd.

	UNSHIFTED	SHIFTED	ALTED
49.	9	(	invalid
50.	0	)	invalid
51.	-	_	invalid
52.	=	+	invalid
53.	backspace	backspace	invalid
54.	**applkey 19**	**applkey 19**	invalid
55.	**applkey 20**	**applkey 20**	invalid
56.	called	called	invalid
57.	services	services	invalid
58.	shift lock	invalid	invalid
59.	q	Q	audio rls q
60.	w	W	audio rls w
61.	e	E	audio rls e
62.	r	R	audio rls r
63.	t	T	audio rls t
64.	y	Y	audio rls y

The above figure shows the new search keys assigned to MP keys 54 and 55.

Figure 4-15 MP keyboard layout with keys numbered.



Connected/Not Connected

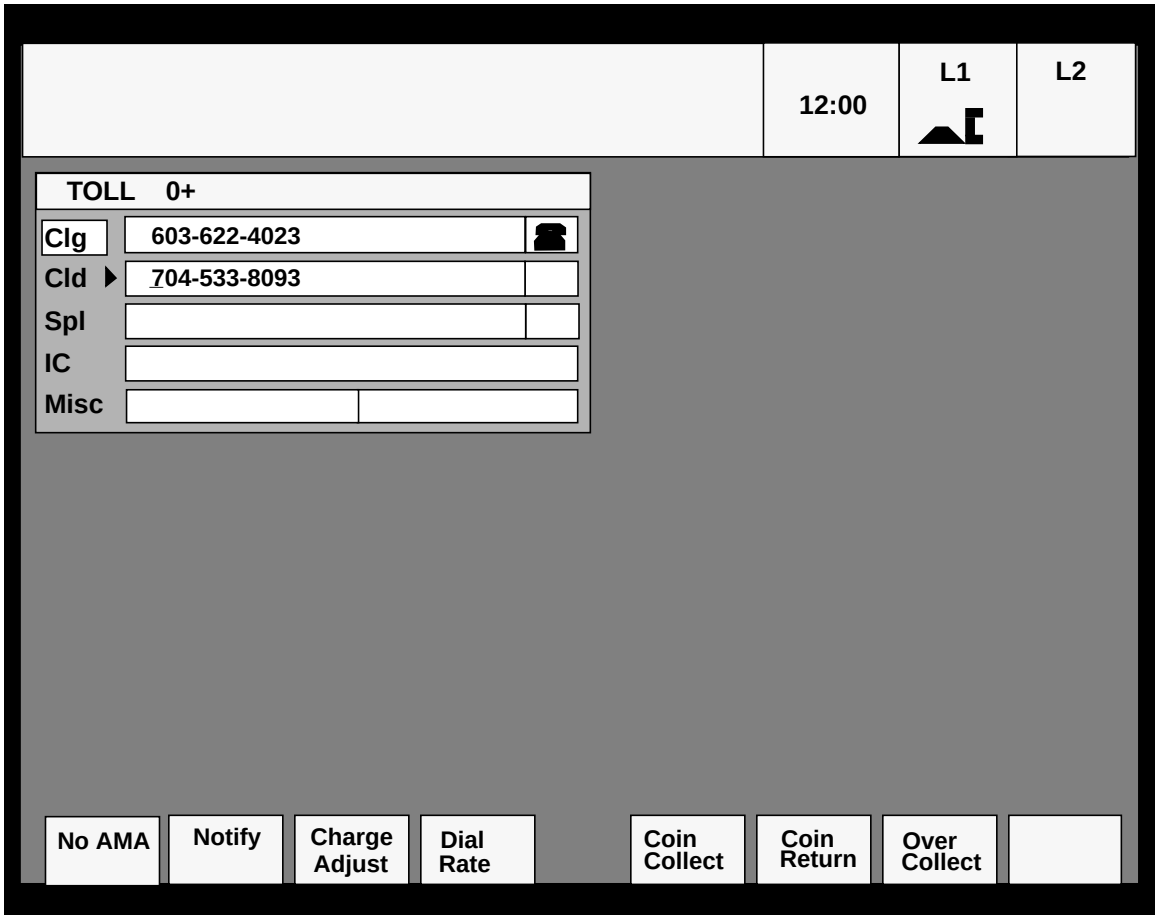
Background

At present, the MP's call processing window indicates 'calling' and 'called' port statuses by changing the foreground and background colors in the 'calling' and 'called' number bars, but the three color combinations used, normal video, reverse video, and shaded background, do not specifically indicate a 'not connected' port status. With this feature, an indication of 'connected/not connected' port status is shown in the call processing window.

TOPS MP Changes

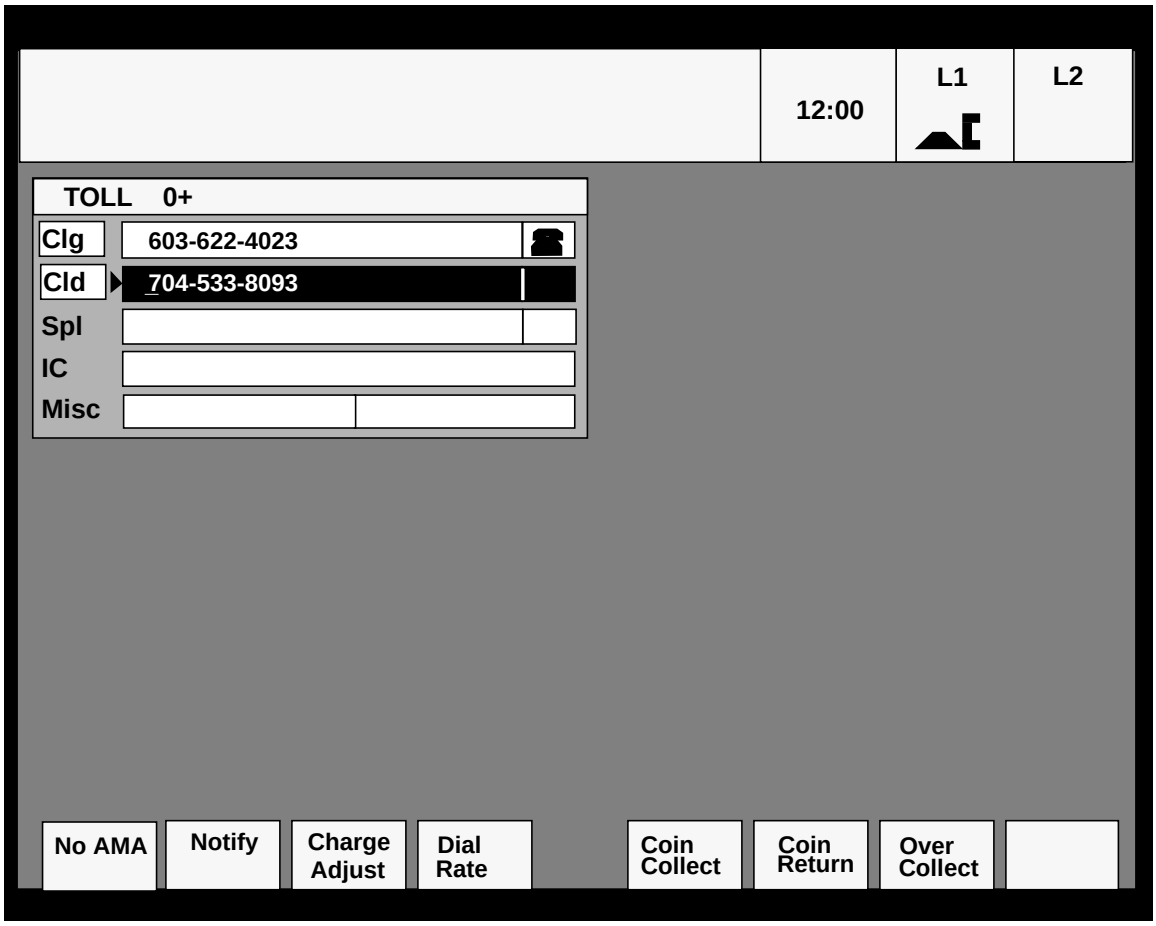
To indicate a port 'not connected' state, the backgrounds of the 'clg' and 'cld' labels now change according to the corresponding port's 'connected/not connected' status; normal background for 'not connected'; altered background for 'connected'. Prior to this feature, the labels' background never changed. The following series of figures show the new MP screen displays for a typical Toll 0+ call. These figures show screens for the normal MP display mode (see the MP assigned activities screen). Screens for the MP alternate display mode would be similar.

Figure 4-16 Call arrival - ‘Calling’ port connected/off-hook and ‘called’ port not connected



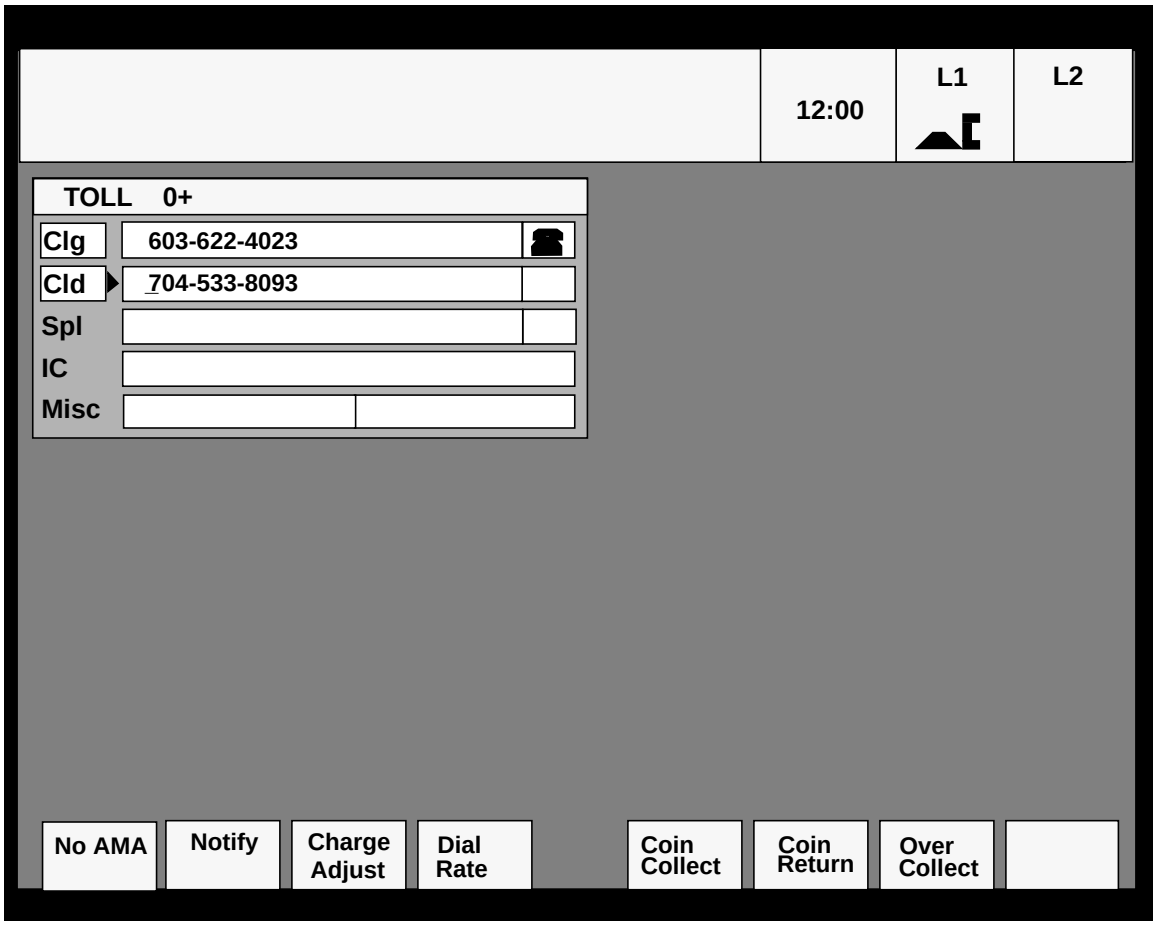
The above figure shows an example 0+ call arrival screen. Notice that the ‘clg’ label background is altered, thus indicating a connection to the ‘calling’ number. The ‘cld’ label background is unaltered, thus indicating a ‘called’ port ‘not connected’ state.

Figure 4-17 'Calling' port connected/off-hook and 'called' port connected/on-hook



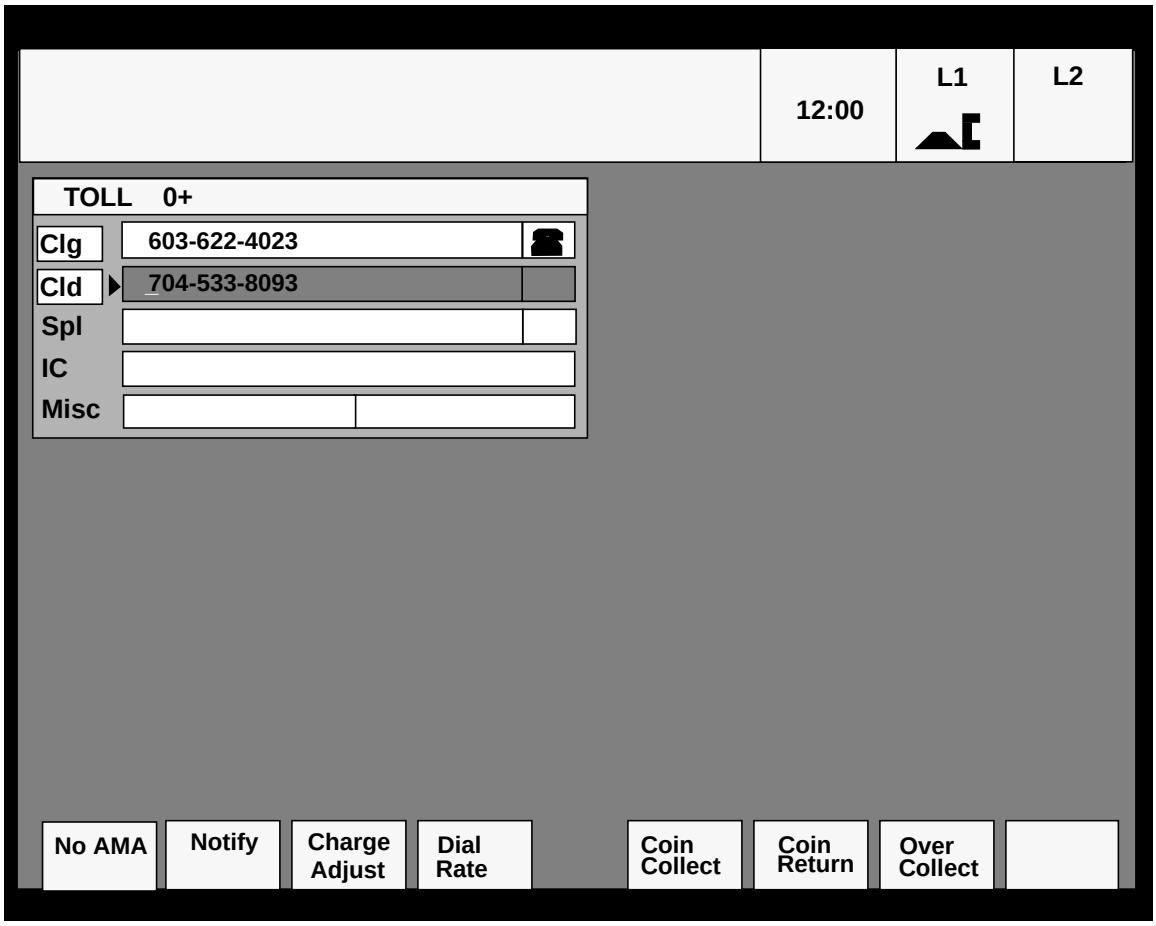
In the above figure for the same call, the operator has just outpulsed the 'called' number and the 'called' party has not yet gone off-hook. Now the 'cld' label background is altered, indicating a 'called' port connection.

Figure 4-18 Calling' port connected/off-hook and 'called' port connected/off-hook



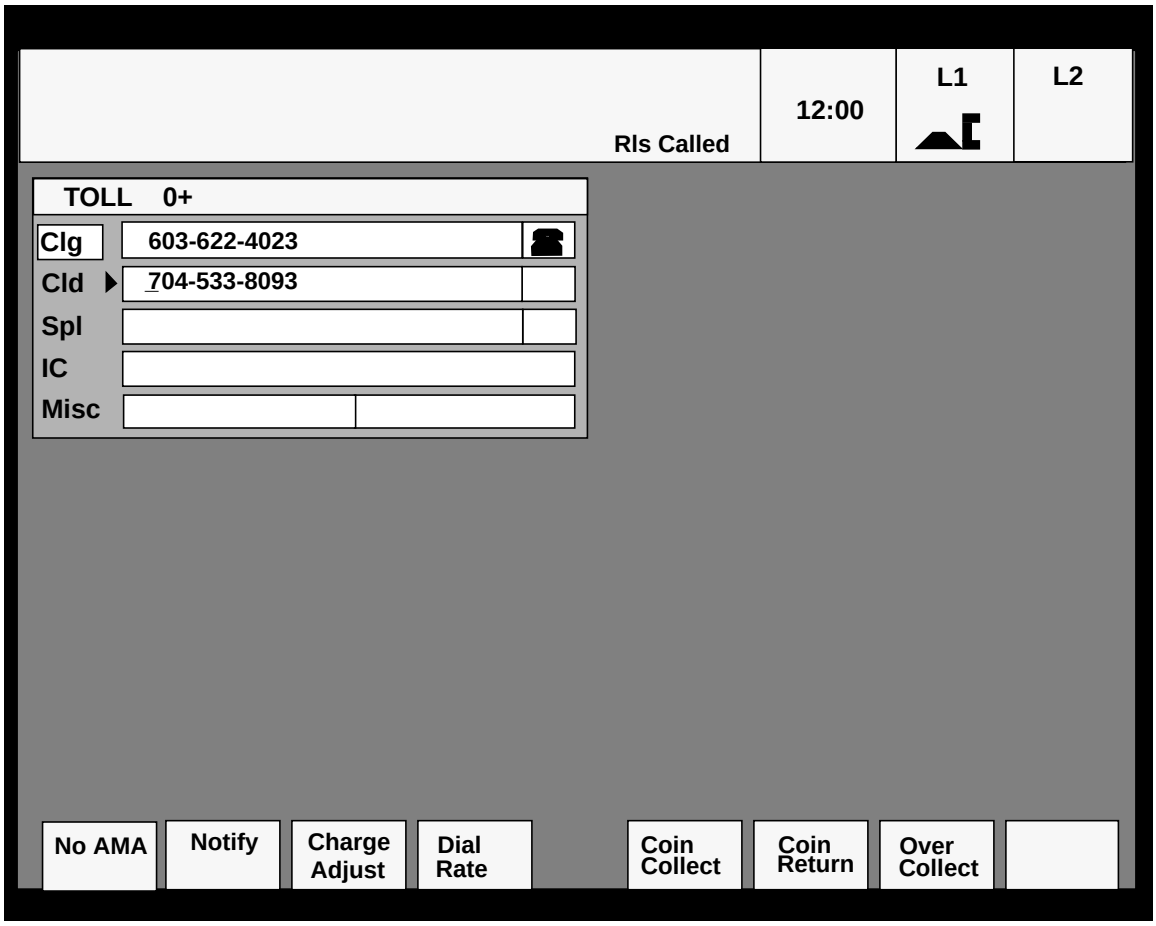
In the above figure for the same call, the 'called' party has now gone off-hook. The 'clg' and 'cld' labels are still altered, indicating connections to the 'calling' and 'called' number.

Figure 4-19 'Calling' port connected/off-hook and 'called' port connected/ split-join



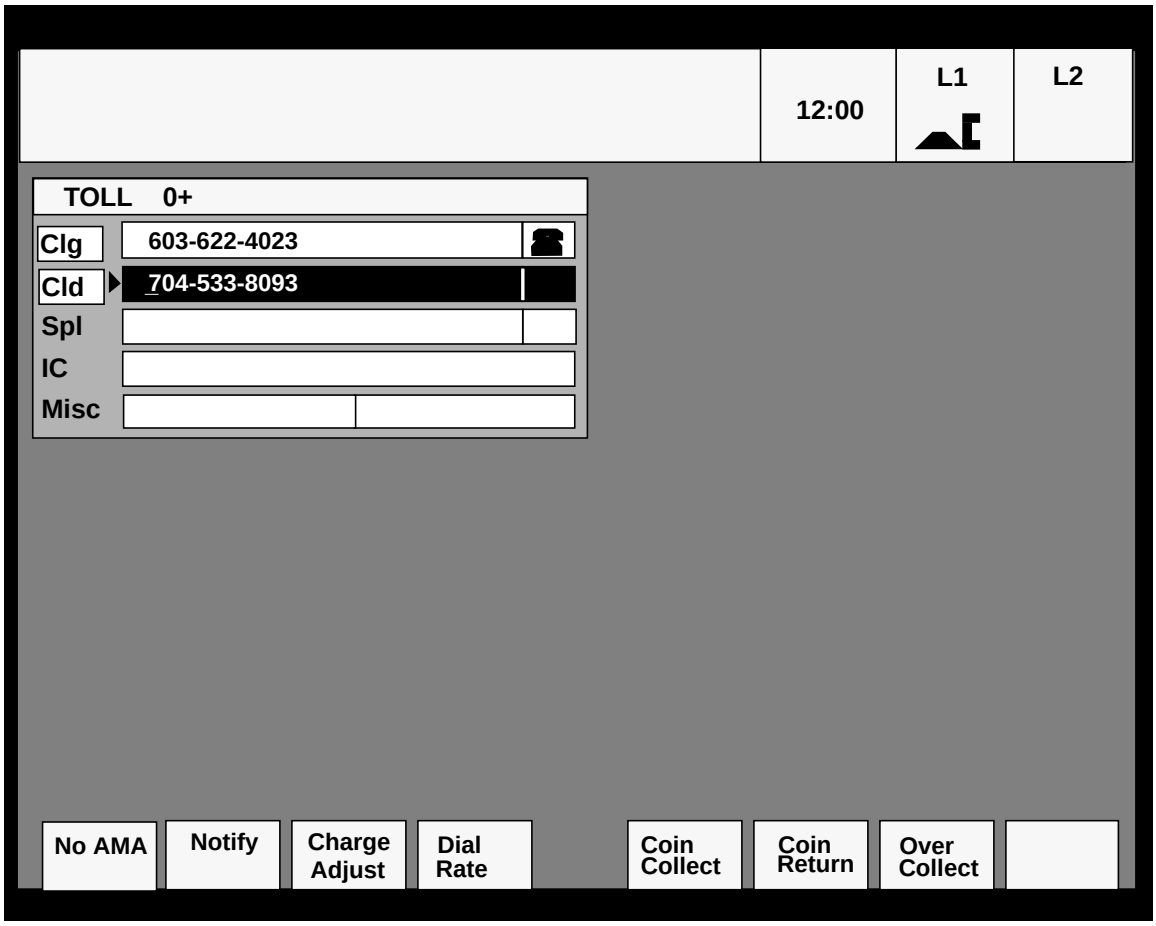
In the above figure for the same call, the operator has split the 'called' party off the circuit. The 'clg' and 'cld' labels are still altered, indicating connections to the 'calling' and 'called' number'.

Figure 4-20 Rls cld - 'Calling' port connected/off-hook and 'called' port not connected



In the above figure for the same call, the operator has joined the 'called' party back on the circuit and then pressed 'rls cld' (release called). Notice that the 'clg' label background is still altered, indicating a connection to the 'calling' number, but now the 'cld' label background is unaltered, indicating no connection to a 'called' number'. This example assumes the associated trunk does not have subscriber hold (i.e. operator can't release off-hook party).

Figure 4-21 Operator hold - ‘Calling’ port connected/off-hook and ‘called’ port connected/on-hook

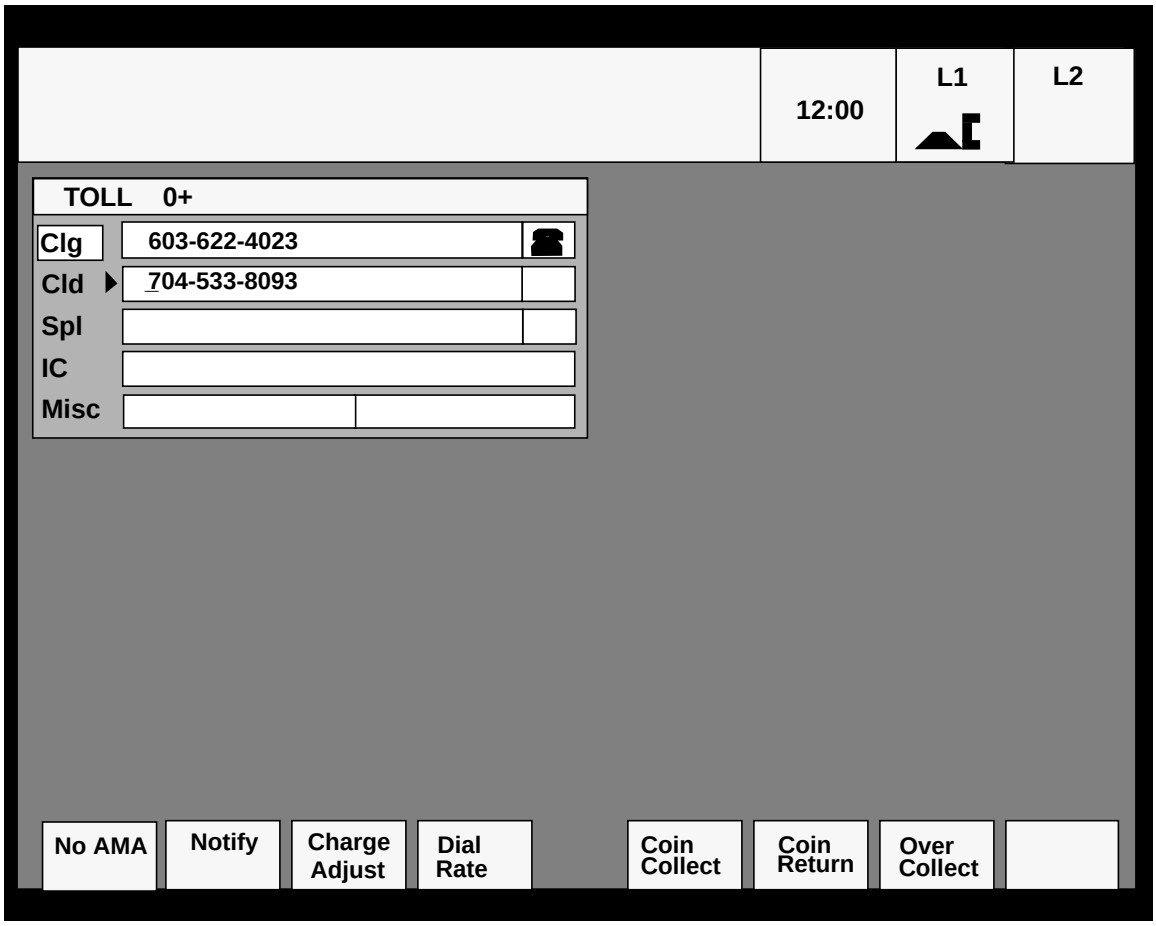


If the called party had hung up prior to the operator ‘releasing called’, the screen display would obviously be different than shown previously. In the above figure for the same call, the ‘called’ party has gone on-hook while still connected to the operator. This figure shows the MP screen for trunks with operator hold, e.g.

- TOPS trunks that have operator hold
- Operator trunks with TERMHOLD HOLDTYPE (see TRKGRP, pos OPTRK)

Notice that the ‘cld’ label background is altered, thus still indicating a connection to the ‘called’ number, but the ‘called’ number bar has inverted, thus now indicating the ‘called’ party is on-hook.

Figure 4-22 Operator no hold - ‘Calling’ port connected/off-hook and ‘called’ port connected/on-hook



The above figure shows the same situation, except now the trunks have no operator hold, e.g.

- TOPS trunks that have no operator hold
- ISUP IT & ATC trunks
- Operator trunks with TERMHOLD NOHOLD (see TRKGRP, pos OPTRK)

Notice that the ‘cld’ label background is unaltered, thus now indicating no connection to the ‘called’ number.

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Directories

Table of New/Modified Directories

Table 4-51 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
N/A				

Accessing directory: N/A

To access

To return to CI

Commands

Table of New/Modified Commands

Table 4-52 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TALKLTA B	CHANGED	N/A	LTPLTA

Command name: TALKLTA B

Command type

Menu

Command target

SuperNode, BRISC, NT40

Command availability

Res

Command description

The command’s function remains unchanged. The error messages displayed have been updated for RDTs using an IRTU for testing.

Warning

N/A

Command syntax

Unchanged

Command name: ALT SDIAG

Command type

Menu and table driven through ALTSCHED

Command target

SuperNode, BRISC, NT40

Command availability

Res

Command description

Additional tests have been added to this function. ALT107 connection faults can now be produced for SDIAG's running on RDTs.

Warning

N/A

Command syntax

Unchanged

Parameter definitions

Table 4-53 TALKTAB Parameter Definitions

PARAMETER	VALUE	DEFINITION
N/A		

Responses: TALKLTA B

Previously an error response was displayed on the MAP if a "TALKLTA B" was attempted on an RDT line using an IRTU. This message indicated that the TALKLTA with Battery command was not supported with an IRTU, and that a normal TALKLTA would be executed instead. This error message has been removed.

Response 1

The following error response is removed:

"TALKLTA with battery not currently supported by IRTU - TALKLTA will be performed"

Explanation:
The IRTU is now able to support the TalkLTA w/battery for POTS and Coin lines. The command is still blocked for EBS lines however. The response for EBS lines is changed to:

"TALKLTA with battery not applicable for RDTEBS lines- TALKLTA will be performed"

System action:
N/A

User action:
N/A

Response 2

An error response is added for the following situation:

- The craftsperson is transitioning from a "TALKLTA B" to another TALK or MON command at the MAP.
- An IRTU was used for the "TALKLTA B" command.
- The message to remove battery could not be sent to the IRTU.

The error text displayed at the MAP is:

"Message to remote equipment failed." Re-try test."

Explanation:
The IRTU provides battery to the loop in this command. It is possible (but unlikely) for the IRTU to reject the command to remove battery. This can happen for various transient reasons.

System action:
N/A

User action:

N/A

Responses: ALT SDIAG

The SDIAG test on an RDT (AccessNode or MVI) now require metallic equipment. ALT107 logs are produced if the metallic connection fails for some reason.

Response

The following log is produced:

Figure 4-23 Sample ALT107 log from SDIAG.

RTPD04BC ALT107 APR26 14:43:55 8607 TBL ALT
TESTID: MANUAL25 Stream: 0 Test type: SDIAG
REASON = Test equipment unavailable.
INFO = RDT/RFT MTAPT

Explanation:
N/A

System action:
N/A

User action:
N/A

Notes

N/A

Examples

N/A

Alarms

Alarm name:

N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AN1561mm.aa08

Directories

Table of New/Modified Directories

Table 4-54 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
MRES_DIR	Changed	N/A	BOTH	RES

Accessing directory:MAKERES

To access

>MAKERES

To return to CI

>QUIT

Commands

CONVERT

Table of New/Modified Commands

Table 4-55 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CONVERT	Changed	N/A	MRES_DIR

Command name:CONVERT

Command type

NON-MENU

Command target

BOTH

Command availability

RES

Command description

CONVERT is an existing command. For a complete description of this command as well as other MAKERES commands, refer to the NC0368MM documentation. This feature adds a warning message to be displayed on execution of the CONVERT command. This feature adds an YES/NO prompt after a valid len range has been entered.

Warning

The warning added by this feature is an indication to the user that the CONVERT command will permanently convert POTS lines to RES. The RES lines converted via MAKERES CONVERT cannot revert back to POTS.

Upon entering the CONVERT command and successfully converting line(s) to RES, the following warning message is given to the user:

WARNING: Lines made RES via MAKERES cannot revert to POTS.

Command syntax

No change is made to the syntax of the CONVERT command. Refer to NC0368MM for command syntax.

Parameter definitions

No change is made to the parameters for the CONVERT command. Refer to NC0368MM for parameter definitions.

Table 4-56 CONVERT Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

This feature adds a new prompt after a valid LEN range has been entered by the user on a CONVERT. This new prompt provides confirmation of the execution of the CONVERT command.

Response

The following prompt will be displayed after the CONVERT command is entered with a valid LEN range:

```
Are you sure you want to convert lines to RES?
Please confirm ("YES", "Y", "NO", or "N"):
>
```

Explanation:
This prompt allow the user to cancel the CONVERT after having been warned that all lines converted via MAKERES cannot revert back to POTS.

System action:
Entering YES/Y verifies that the CONVERT command should be performed. Entering NO/N indicates that the CONVERT command will not be performed. Any other entry will result in the following message and prompt:

```
Invalid symbol: <Yes, Y, NO, or N> {YES,
                                    Y,
                                    NO,
                                    N}
Enter: <Yes, Y, NO, or N>
>
```

User action:
User must enter YES/Y in order to execute the CONVERT as entered. User must enter NO/N in order to cancel the CONVERT.

Notes

No new restrictions, limitations, preconditions, or interactions are added.

Examples

An example of the CONVERT command is given below. For examples of other MAKERES commands, refer to NC0368MM.

```
>makeres
MAKERES:
WARNING: Restarts, table control, and SERVORD changes
during the CONVERT process are NOT recommended.
>convert start host 1 0 0 26 stop host 1 0 0 26
WARNING: Lines made RES via MAKERES cannot revert to POTS
Are you sure you want to convert lines to RES?
Please confirm ("YES", "Y", "NO", or "N"):
>yes
Conversion has begun...
Conversion Complete, Please COPY to display results.
>
```

```
>makeres
MAKERES:
WARNING: Restarts, table control, and SERVORD changes
during the CONVERT process are NOT recommended.
>convert start host 1 0 0 26 stop host 1 0 0 26
WARNING: Lines made RES via MAKERES cannot revert to POTS
Are you sure you want to convert lines to RES?
Please confirm ("YES", "Y", "NO", or "N"):
>no
>
```

Alarms

Alarm name:

Not Applicable.

Conditions required to raise the alarm

Duration of the alarm

AN1632mm.aa06

Directories

Table of New/Modified Directories

Table 4-57 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
UCDQUERY	CHANGED		BOTH	RES

Accessing directory:

To access

Enter UCDQUERY

To return to CI

Enter QUIT

Commands

Table of New/Modified Commands

Table 4-58 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
UCDDNS	NEW		UCDQUERY

Command name: UCDDNS

Command type

Non- Menu

Command target

Both

Command availability

Command description

Command to display list of UCD directory numbers.

Warning

None

Command syntax

Parms: [<Group> {ALL,

GROUP <UCD_group> STRING}]

When ‘ALL’ is specified instead of ‘GROUP <UCD_group>’ the information is listed in order of datafill in table UCDGRPS.

Parameter definitions

Table 4-59 UCDDNS Parameter Definitions

PARAMETER	VALUE	DEFINITION
	ALL	all dn associated with UCD groups
Group	GROUP; <UCD_group>	GROUP plus UCD grp name

Responses

Response

See examples.

Explanation:
See examples.

System action:
None

User action:
None

Notes

None

Examples

Example 1.

```
>UCDDNS GROUP UCDGRP1

=====================================================

      UCD Directory Numbers For UCD Group UCDGRP1

       Primary UCDDN:                613 722 5550

        Call Priority:               0

         ***No Name Associated***

      Supplementary UCDDN:           613 722 5551

       Member Number:                0

        Call Priority:               1

        ***No Name Associated***

      Supplementary UCDDN:           613 722 5552

        Member Number:               1

        Call Priority:               2

        ***No Name Associated***

      Supplementary UCDDN:           613 722 5553

        Member Number:               2

        Call Priority:               3

        ***No Name Associated***
```

Example 1 shows the DNs associated with UCD group UCDGRP1. It has a Primary DN 613 722 5550 with call priority 0 and no public name. Also it has 3 Supplementary memebrs. For each member the DN, member number, call priority and no public name is displayed.

In this example there is no public name datafilled in table DNATTRS/DNGRPS.

Example 2.

```
>UCDDNS GROUP UCDGRP2

=================================================

      UCD Directory Numbers For UCD Group UCDGRP2
```

Primary UCDDN:	613 722 4098
Call Priority:	2
Ucd-Dn Name:	UCDGRPNAME

Example 2 shows the DNs associated with UCD group UCDGRP2. This group has only a Primary number 613 722 4098, call priority 2 and public name UCDGRPNAME.

This Example has no Supplementry DNs.

AN1649mm.aa19

Directories

Table of New/Modified Directories

Table 4-60 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
QCALL	Changed	N/A	All CM	RES
QVIEW	Changed	N/A	All CM	RES

Accessing directory: QCALL

To access

```
>QCALL
```

To return to CI

```
>QUIT
```

Accessing directory: QVIEW

To access

```
>QVIEW
```

To return to CI

```
>QUIT
```

Commands

Table of New/Modified Commands

Table 4-61 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ORDER	Changed	N/A	QCALL
ORDER	Changed	N/A	QVIEW

Command name: ORDER

Command type

NON-MENU

Command target

All CM.

Command availability

RES

Command description

Prior to this feature, the ORDER subcommand in QCALL and QVIEW accepted parameters PREOPR, POSTAUTO, and RECALL. The value of the parameter determined which ordering would be used in CT4Q refinement and which column of TQMSFCQA (CALLQ or RECALLQ) would be used for the simulated call or for the view.

This functionality is not changed. However, the ORDER subcommand now also accepts the new parameter ASST.

The new ASST parameter indicates that the CT4Q refinement and QMS CallQ assignment are being done as a result of a general assistance request. When ASST is specified, the ASST field of the specified order table will be used and the ASSTAREA field of table TQMSFCQA will be used.

Although the ASST field of the order table and the ASSTAREA field of TQMSFCQA are not consulted by TOPS Call Processing unless the SOC option containing QMS CASE is ON, QCALL and QVIEW will consult these fields regardless of the SOC state.

Warning

Not applicable.

Command syntax

```
>help order
QUERY OR UPDATE THE ORDER VARIABLE

THIS VARIABLE DETERMINES WHICH
CALL QUEUE ASSIGNMENT ORDERING
TO FOLLOW.

(EG. ORDER, ORDER PREOPR, ORDER POSTAUTO, ORDER RECALL, ORDER
ASST)

Parms: [<PREOPR, POSTAUTO, RECALL, OR ASST> STRING]
Legal parameters are: {PREOPR,POSTAUTO,RECALL,ASST}
```

Parameter definitions

Table 4-62 ORDER Parameter Definitions

PARAMETER	VALUE	DEFINITION
ASST	N/A	Specifies that CT4Q refinement and QMS CallQ assignment will be done as if this were a general assistance request in an office with QMS CASE active.

Response

```
THE VALUE HAS BEEN ASSIGNED:  ORDER = ASST
```

Examples

```
>qcall
FOR DOCUMENTATION, ENTER  HELP
QCALL:
>order asst
THE VALUE HAS BEEN ASSIGNED:  ORDER = ASST

>qview
FOR DOCUMENTATION, ENTER  HELP
QVIEW:
>order asst
THE VALUE HAS BEEN ASSIGNED:  ORDER = ASST
```

Alarms

NONE

AQ1317mm.aa07

Directories

None.

Table of New/Modified Directories

Table 4-63 Modified FBus Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory

None.

To access

None.

To return to CI

None.

Commands

Table of New/Modified Commands

Table 4-64 Modified FBus Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QUERYFB	Changed		FTBDIR
QUERYPM	Changed		

Command name: QueryFB (MSFBDIR)

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

The QueryFB command is used to display the information on the state transition and stored faults associated with the FBus or tap. Only the current faults are considered. The faults are decoded and the associated string is displayed.

Warning

Not applicable.

Command syntax

There is no change on the current command syntax.

Parameter definitions

There is no change on the current command parameter definitions.

Responses

There is a message display enlacement for the QueryFB command when FBus is CBsy due to a MS port fault. See the examples section for more details.

Examples

Figure 4-24 Current QueryFB result

```
10            Card 17 Port 00 FBus Tap:0    4    8
11           MS 0  .       S   C       CC-- C--- C---
12           MS 1  .       .   .       ..-- .--- .---
13  Card_
14  QueryMS  QueryFB 0 fbus flt
15  Trnsl_   Site Flr RPos Bay_id Shf DescriptionSlot     EqPEC
16  QueryFB_ HOST 01 A00 DPCC 0   39 MS 0:0:17      23       9X17AD FRNT
17           HOST 01 A00 DPCC 0   39 MS 0:0:17      23       9X62BA BACK
18  Port_    No faults were found on Fbus 0.
```

Figure 4-25 New QueryFB result

```
10            Card 17 Port 00 FBus Tap: 0    4    8
11            MS 0  .       S   C       CC-- C--- C---
12            MS 1  .       .   .       ..-- .--- .---
13  Card_
14  QueryMS   QueryFB 0 fbus flt
15  Trnsl_    Site Flr RPos Bay_id Shf Description  Slot     EqPEC
16  QueryFB_  HOST 01 A00 DPCC 0   39 MS 0:0:17      23       9X17AD FRNT
17            HOST 01 A00 DPCC 0   39 MS 0:0:17      23       9X62BA BACK
18  Port_     Inspect Fibre cable or FBus cards on FBus 0.
              Use QueryMS command for Fault on MS port.
```

Command name: QueryPM

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

The QueryPM command is used to display the ASU state transition, ASU load information, link information, host controller, FBus tap information, and other ASU information (i.e PM, FTA etc.).

Warning

Not applicable.

Command syntax

There is no change on the current command syntax.

Parameter definitions

There is no change on the current command parameter definitions.

Responses

There is a text display change for FBus Tap information on the QueryPM command when the ASU is OFFL. The tap information on the FBus will be displayed as "." instead of "I" which reflects the associated MAP FBus Tap state. See the examples section for more details.

MS host controller ASU QueryPM display examples

Figure 4-26 Current FBus Tap state info on the QueryPM display for LIU

```
 5            QueryPM
 6 Tst_         PM type: LIU7    PM No.: 100    Status: OffL
 7 Bsy_         (F)LIS  Shelf: 1  Slot: 8      LIU FTA:  4244 1000
 8 RTS_         Default Load: LRS04BE
 9 OffL_        Running Load:
10 LoadPM_      Potential service affecting conditions:
11 Disp_             TAP #0 OOS/NA
12 Next              TAP #1 OOS/NA
13             MS States   :  InSv          InSv
14 QueryPM_    Auditing    :  No            No
15 LoadBk_     Msg Channels:  Acc           Acc
16             TAP 0       :  I             I
17            Reserved LIU7 forms part of CCS7 Linkset : WLKS100  SLC : 0
18             LIU is not allocated
```

Figure 4-27 New FBus Tap state info on the QueryPM display for LIU

```
 5            QueryPM
 6 Tst_         PM type: LIU7    PM No.: 100    Status: OffL
 7 Bsy_         (F)LIS  Shelf: 1  Slot: 8      LIU FTA:  4244 1000
 8 RTS_         Default Load: LRS04BE
 9 OffL_        Running Load:
10 LoadPM_      Potential service affecting conditions:
11 Disp_             TAP #0 OOS/NA
12 Next              TAP #1 OOS/NA
13             MS States   :  InSv          InSv
14 QueryPM_    Auditing    :  No            No
15 LoadBk_     Msg Channels:  Acc           Acc
16             TAP 0       :  .             .
17            Reserved LIU7 forms part of CCS7 Linkset : WLKS100  SLC : 0
18             LIU is not allocated
```

Figure 4-28 Current FBus Tap info on the QueryPM display for XLIU

```
 4           XLIU   222 OffL       Rsvd
 5           QueryPM
 6 Tst_        PM type: XLIU  PM No.: 222  Status: OffL
 7 Bsy_        Node Number 14 XSG 1
 8 RTS_        MS  Shelf: 2  Slot: 22     XLIU FTA:  424E 1000
 9 OffL_       Default load: XRX04BE
10 LoadPM_     Running load:
11 Disp_       Potential service affecting conditions:
12 Next            CBUS PORT for NIU Unit 0 is not inservice
13                 CBUS PORT for NIU Unit 1 is not inservice
14 QueryPM_                    Unit 0        Unit 1
15             MS States   :  InSv          InSv
16             Auditing    :  No            No
17 Swtch_      Msg Channels:  Acc           Acc
18             TAP 19      :  I             I
  TEAM1        NIU 1       :  InSv          InSv
 6 Tst_      XLIU 222 is included in the SREX scheduler
 7 Bsy_      XLIU 222 is non auto-sparable
 8 RTS_      REX test on XLIU 222 is disabled: non auto-sparable
```

Figure 4-29 New FBus Tap info on the QueryPM display for XLIU

```
 4           XLIU   222 OffL       Rsvd
 5           QueryPM
 6 Tst_        PM type: XLIU  PM No.: 222  Status: OffL
 7 Bsy_        Node Number 14 XSG 1
 8 RTS_        MS  Shelf: 2  Slot: 22     XLIU FTA:  424E 1000
 9 OffL_       Default load: XRX04BE
10 LoadPM_     Running load:
11 Disp_       Potential service affecting conditions:
12 Next            CBUS PORT for NIU Unit 0 is not inservice
13                 CBUS PORT for NIU Unit 1 is not inservice
14 QueryPM_                    Unit 0        Unit 1
15             MS States   :  InSv          InSv
16             Auditing    :  No            No
17 Swtch_      Msg Channels:  Acc           Acc
18             TAP 19      :  .             .
  TEAM1        NIU 1       :  InSv          InSv
 6 Tst_      XLIU 222 is included in the SREX scheduler
 7 Bsy_      XLIU 222 is non auto-sparable
 8 RTS_      REX test on XLIU 222 is disabled: non auto-sparable
```

Figure 4-30 Current FBus Tap information on the QueryPM display for EIU

```
 4           EIU    211 OffL       Rsvd
 5           QueryPM
 6 Tst         PM type: EIU   PM No.: 211    Status: OffL
 7 Bsy         MS  Shelf: 2  Slot: 30      EIU FTA:  424D 1000
 8 RTS         Default Load: ERS04BC
 9 OffL        Running Load:
10 LoadPM      MS States:     InSv        InSv
11 Disp_       Auditing?:     No          No
12 Next        Msg Channels:  Acc         Acc
13             TAPs:          I           I
14 QueryPM
```

Figure 4-31 New FBus Tap information on the QueryPM display for EIU

```
 4           EIU    211 OffL       Rsvd
 5           QueryPM
 6 Tst         PM type: EIU   PM No.: 211    Status: OffL
 7 Bsy         MS  Shelf: 2  Slot: 30      EIU FTA:  424D 1000
 8 RTS         Default Load: ERS04BC
 9 OffL        Running Load:
10 LoadPM      MS States:     InSv        InSv
11 Disp_       Auditing?:     No          No
12 Next        Msg Channels:  Acc         Acc
13             TAPs:          .           .
14 QueryPM
```

LPP host controller ASU QueryPM display examples

Figure 4-32 Current FBus Tap information on the QueryPM display for LIU

```
 4           LIU7    14 OffL       Rsvd
 5           QueryPM
 6 Tst_        PM type: LIU7    PM No.: 14    Status: OffL
 7 Bsy_        LIM: 0  Shelf: 2  Slot: 12      LIU FTA:  4247 1000
 8 RTS_        Default Load: LRS04BF
 9 OffL_       Running Load:
10 LoadPM_     Potential service affecting conditions:
11 Disp_            TAP #0 OOS/NA
12 Next             TAP #1 OOS/NA
13             LMS States  :  InSv          InSv
14 QueryPM_    Auditing    :  No            No
15 LoopBk_     Msg Channels:  Acc           Acc
16             TAP 14      :  I(NA)         I(NA)
17          Reserved LIU7 forms part of CCS7 Linkset : TBASE0RS0_RS2  SLC :
18            0
  TEAM4        LIU is not allocated
```

Figure 4-33 New FBus Tap information on the QueryPM display for LIU

```
 4           LIU7    14 OffL       Rsvd
 5           QueryPM
 6 Tst_        PM type: LIU7    PM No.: 14    Status: OffL
 7 Bsy_        LIM: 0  Shelf: 2  Slot: 12      LIU FTA:  4247 1000
 8 RTS_        Default Load: LRS04BF
 9 OffL_       Running Load:
10 LoadPM_     Potential service affecting conditions:
11 Disp_            TAP #0 OOS/NA
12 Next             TAP #1 OOS/NA
13             LMS States  :  InSv          InSv
14 QueryPM_    Auditing    :  No            No
15 LoopBk_     Msg Channels:  Acc           Acc
16             TAP 14      :  .             .
17          Reserved LIU7 forms part of CCS7 Linkset : TBASE0RS0_RS2  SLC :
18            0
  TEAM4        LIU is not allocated
```

Figure 4-34 Current FBus Tap information on the QueryPM display for EIU

```
 4          EIU     15 OffL       Rsvd
 5          QueryPM
 6 Tst        PM type: EIU   PM No.: 15    Status: OffL
 7 Bsy        LIM: 0  Shelf: 2  Slot: 14      EIU FTA:  424C 1000
 8 RTS        Default Load: ERS04BF
 9 OffL       Running Load:
10 LoadPM     Potential service affecting conditions:
11 Disp_           TAP #0 OOS/NA
12 Next            TAP #1 OOS/NA
13           LMS States:    InSv        InSv
14 QueryPM   Auditing?:     No          No
15           Msg Channels:  Acc         Acc
16           TAPs:          I(NA)       I(NA)
```

Figure 4-35 Current FBus Tap information on the QueryPM display for LIU

```
 4          EIU     15 OffL       Rsvd
 5          QueryPM
 6 Tst        PM type: EIU   PM No.: 15    Status: OffL
 7 Bsy        LIM: 0  Shelf: 2  Slot: 14      EIU FTA:  424C 1000
 8 RTS        Default Load: ERS04BF
 9 OffL       Running Load:
10 LoadPM     Potential service affecting conditions:
11 Disp_           TAP #0 OOS/NA
12 Next            TAP #1 OOS/NA
13           LMS States:    InSv        InSv
14 QueryPM   Auditing?:     No          No
15           Msg Channels:  Acc         Acc
16           TAPs:          .            .
```

Alarms

Alarm name: 00CCFB and 00FCFB

This feature introduces two new MS minor alarms for the FBus Composite Clock fault. They are:

- 00CCFB Alarm for a Partial FBus Composite Clock fault.
- 00FCFB Alarm for a Full FBus Composite Clock fault.

Conditions required to raise the alarm

The 00CCFB will be raised when a FBus Composite Clock fault is detected in one FBus.

The 00FCFB will be raised when a FBus Composite Clock fault is detected in both FBuses.

Duration of the alarm

The alarms will be raised until the detected FBus Composite Clock fault in one FBus or both FBuses is cleared.

Examples

Figure 4-36 Current FBus Composite Clock Minor Alarm

```
CM      MS      IOD     Net     PM      CCS     Lns     Trks    Ext     APPL
      Istb
```

Figure 4-37 New Partial FBus Composite Clock Minor Alarm

```
CM      MS      IOD     Net     PM      CCS     Lns     Trks    Ext     APPL
      01CCFB
```

This alarm indicates that a Partial FBus Composite Clock fault has been detected in one FBus (i.e. either FBus 0 or FBus 1). This Partial loss of Composite Clock has been occurred in one FBus.

Figure 4-38 New Full FBus Composite Clock Minor Alarm

```
CM      MS      IOD     Net     PM      CCS     Lns     Trks    Ext     APPL
      03FCFB
```

This alarm indicates that a Full FBus Composite Clock fault has been detected in both FBus 0 and FBus 1. This Full loss of Composite Clock has been taken place in three FBuses.

Tool Development

WARNING: This tool may pose a serious real-time impact to process MSCFBMNT and to the CM if it is left enabled after tool use. THEREFORE it is the responsibility of the tool user to properly disable and deallocate tool resources after use.

Directories

Table of New/Modified Directories

Table 4-65 Modified FBus Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
CFBMONDIR	NEW		Supernode	Res

Accessing directory

To access

CFBMON

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 4-66 Modified FBus Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QUERYFBUS	New		CFBMONDIR
ENABLE	New		CFBMONDIR
DISABLE	New		CFBMONDIR
FIRST	New		CFBMONDIR
LAST	New		CFBMONDIR
FORWARD	New		CFBMONDIR
BACK	New		CFBMONDIR
SKIP_FORWARD	New		CFBMONDIR
SKIP_BACK	New		CFBMONDIR
COUNT	New		CFBMONDIR
BUFFER	New		CFBMONDIR
SELECT	New		CFBMONDIR
FORMAT	New		CFBMONDIR

Table 4-66 Modified FBus Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
STATUS	New		CFBMONDIR
HELP	New		CFBMONDIR
QUIT	New		CFBMONDIR

Command name: QUERYFBUS

Command type

MENU

Command target

Supernode

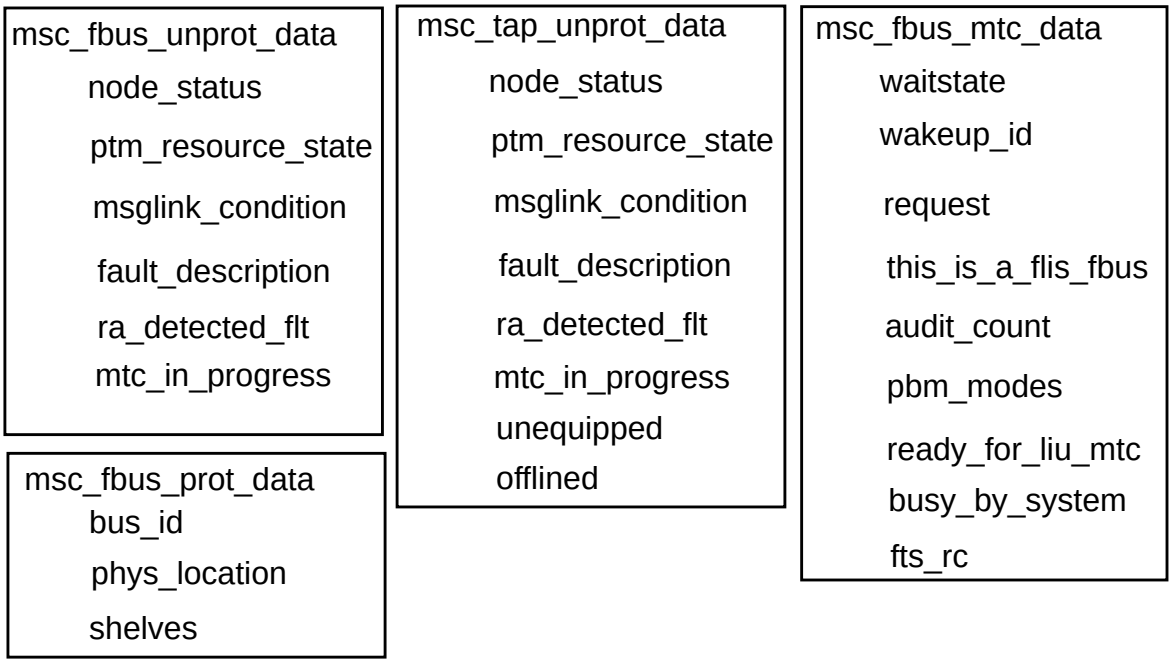
Command availability

RES

Command description

Allows the user to take a snapshot of FBus and TAP database information as well as FBUS maintenance database information. The types of data which can be displayed are shown below

.



Command syntax

Option 1.
queryfbus <ms #> <card #> <port #> <shelf #>

Option 2.
queryfbus <maint> <ms #> <card #> <port #> <shelf #>

Option 3.
queryfbus <tap> <ms #> <card #> <port #> <shelf #> <starting tap>

<ending tap> <skip increment>

Option 4.
queryfbus <tap> <all> <ms #> <card #> <port #> <shelf #>

Option 5.
queryfbus <all> <ms #> <card #> <port #> <shelf #>

Parameter definitions

<ms #> - MS number.

<card #> - MS card number.

<port #> - MS port number.

<shelf #> - MS shelf number.

<maint> - Used to select the display of msc_fbus_mtc_data.

<tap> - Used to select the display of msc_tap_unprot_data.

<all> - When used in the form ‘queryfbus <all> ...’ the user selects to display all taps associated with the bus as well as both msc_fbus_mtc_data and msc_fbus_unprot_data. When <all> is used in the form ‘queryfbus <tap> <all> ...’ the user has indicated that all tap data associated with the bus is to be displayed.

<starting tap> <ending tap> <skip increment> - Allows the user to display information on every X’th tap starting a tap number Y ending at tap number Z.

Responses

The user is presented with the selected data.

Figure 4-39 Output example

```
Output example

> queryfbus <ms #> <card #> <port #> <shelf #>
>
> MSC_FBUS_UNPROT_DATA <ms 2> <card 5> <port 2> <shelf 0> TIME: 20:13:13.23
> node_status: MACHINE_BUSY    availability: AV recovery: AUTO
> mtc_active: TRUE            accessible: YES   faults: none
> ra_detected_flt: YES        fault_dump: 0000 0398 0005 9903
```

Command name: ENABLE

Command type

MENU

Command target

SuperNode

Command availability

RES

Command description

Enables recording of information into the buffer.

Command syntax

> enable

Responses

> X buffers have been enabled for recording.

Figure 4-40 Output example

```
Output example

>enable
>X buffers have been enabled for recording.
```

Command name: DISABLE

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Disables recording of information into the buffer.

Command syntax

> disable

Responses

> X buffers have been disabled.

Figure 4-41 Output example

```
Output example

>disable
>X buffers have been disabled.
```

Command name: FIRST

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Display the first (oldest) item in the buffer.

Command syntax

> first

Responses

The first data item will be displayed. If the buffer is empty then a prompt will be given to acknowledge the fact.

Figure 4-42 Output example

```
Output example

>first
>There are no items in the buffer to display.
```

Command name: LAST

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Display the last (most recent) item in the buffer.

Command syntax

>last

Responses

The last item in the buffer will be displayed. If the buffer is empty then a prompt acknowledging the fact will be given.

Figure 4-43 Output example

```
Output example

>last
>There are no items in the buffer to display.
```

Command name: FORWARD

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Go forward the given number of entries in the buffers and display them.

Command syntax

> forward <number>

Parameter definitions

<number> - number of items to display staring at the current buffer time.

Responses

Display of various buffer times.

Figure 4-44 Output example

Output example

```
> forward 5
>
> To be given later.
```

Command name: BACK

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Go back the given number of entries in the buffers and display them.

Command syntax

> back <number>

Parameter definitions

<number> - number of items to display staring at the current buffer item.

Responses

Display of various buffer items.

Figure 4-45 Output example

```
Output example:

> back 5

> to be given later.
```

Command name: SKIP_FORWARD

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Skip forward the given number of entries in the buffers and display the last one only.

Command syntax

> skip_forward <number>

Parameter definitions

<number> - Jump offset from current buffer item to the item required to be displayed.

Responses

Display of buffer item. If the jump offset is invalid the user will be notified.

Figure 4-46 Output example

```
Output example

To be given later.
```

Command name: SKIP_BACK

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Skip back the given number of entries in the buffers and display the last one only.

Command syntax

skip_back <number>

Parameter definitions

<number> - Jump offset from current buffer item to the item required to be displayed.

Responses

Display of buffer item. If the jump offset is invalid the user will be notified.

Figure 4-47 Output example

```
Output example

To be given later
```

Command name: COUNT

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Count the number of entries that are currently stored in the buffer(s).

Command syntax

> count

Responses

A count of the number of buffer writes is given.

Figure 4-48 Output example

```
Output example

> count
> There are XX items in the CFBMON buffer.
```

Command name: BUFFER

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Allocate, clear, or query CFBMON buffers.

Command syntax

Option 1.
buffer <alloc> <number>

Option 2.
buffer <clear>

Option 3.
buffer <query>

Parameter definitions

<alloc> <number> - Tells CFBMON to allocate a given number of buffers.

<clear> - Clear all the allocated buffers.

<query> - Used to request information on the status of the buffers.

Responses

> buffer <alloc> <number>: The tool will confirm the buffer allocation.

> buffer <clear>: A response will be given indicating the buffers have been cleared.

> buffer <query>: Information on number of buffers allocated will be provided.

Figure 4-49 Output example

```
Output example

To be given later.
```

Command name: SELECT

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Changes the collection attributes of the tool. Data collection modes can be MESSAGE, BUS, TAP, TRACE, or any combination.

Warning

When bus and tap data is selected a warning will be given to notify the user of possible real-time side effects to process MSCFBMNT.

Command syntax

Option 1.
select <message> <ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>

Option 2.
select <message> <all>

Option 3.
select <bus> <ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>

Option 4.
select <bus> <all>

Option 5.
select <bus> <ms #> <card #> <port #> <shelf #> <start> <end> <skip>
<ms #> <card #> <port #> <shelf #> <0> <5> <1>
<ms #> <card #> <port #> <shelf #> <all>
<ms #> <card #> <port #> <shelf #> <all>

Option 6.
select <bus> <all> <all>

Option 7.
select <bus> <pre>
select <bus> <post>
select <bus> <both>

Option 8.

select <trace>

Parameter definitions

<ms #> <card #> <port #> <shelf #> - values to identify a bus.

<message> <ms #> <card #> <port #> <shelf #> - enable collection of message data for the messages sent to a particular bus. The user has the option to collect this type of data for a maximum of 4 different buses.

<message> <all> - collect message data for all incoming message instances.

<bus> <ms #> <card #> <port #> <shelf #> - enable collection of bus data for the buses identified up to a max of 4 buses.

<bus> <ms #> <card #> <port #> <shelf #> <start> <end> <skip> - enables collection of tap data along with bus data. This mode will collect data for every X'th tap starting a <start> ending with tap number <end>.

<bus> <all> -Since the incoming message is directed to a particular bus, the tool will collect bus information related to the message instance.

<bus> <all> <all> - will collect bus data as well as all tap data associated with the bus.

The <pre>, <post>, and <both> option allow the user to direct the tool to collect bus/tap data before the message is processed, or after it is processed or at both times.

<trace> - Does not collect much data. This option will provide message timestamp, <ms #> <card #> <port #> <shelf #> the message was addressed to, and some information related to the handler processing the message. This command is useful if the tools real-time intrusion to MSCFBMNT is to be excessively limited.

Figure 4-50 Output example

```
Output example

To be given later.
```

Command name: FORMAT

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

The optionality provided by this command is the same for the command SELECT. FORMAT is used for flittering the data during display time, whereas SELECT is used for flittering the data during collection time.

FORMAT changes the display attributes of the tool. Data display modes can be MESSAGE, BUS, TAP, TRACE, or any combination provide that the data is in the buffer.

Command syntax

Option 1.
format <message> <ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>

Option 2.
format <message> <all>

Option 3.
format <bus> <ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>
<ms #> <card #> <port #> <shelf #>

Option 4.
format <bus> <all>

Option 5.
format <bus> <ms #> <card #> <port #> <shelf #> <start> <end> <skip>
<ms #> <card #> <port #> <shelf #> <0> <5> <1>
<ms #> <card #> <port #> <shelf #> <all>
<ms #> <card #> <port #> <shelf #> <all>

Option 6.
format <bus> <all> <all>

Option 7.
format <bus> <pre>
format <bus> <post>
format <bus> <both>

Option 8.
format <trace>

Parameter definitions

<ms #> <card #> <port #> <shelf #> - values to identify a bus.

<message> <ms #> <card #> <port #> <shelf #> - enable display of message data for the messages sent to a particular bus. The user has the option to display this type of data for a maximum of 4 different buses.

<message> <all> - display message data for all incoming message instances.

<bus> <ms #> <card #> <port #> <shelf #> - enable display of bus data for the buses identified up to a max of 4 buses.

<bus> <ms #> <card #> <port #> <shelf #> <start> <end> <skip> - enables display of tap data along with bus data. This mode will display data for every X'th tap starting a <start> ending with tap number <end>.

<bus> <all> -Since the incoming message is directed to a particular bus, this option will display bus information related to the message instance.

<bus> <all> <all> - will display bus data as well as all tap data associated with the bus.

The <pre>, <post>, and <both> option allow the user to direct the tool to display bus/tap data before the message is processed, or after it is processed or at both times.

<trace> - Does not display much data. This option will provide message timestamp, <ms #> <card #> <port #> <shelf #> the message was addressed to, and some info related to the handler processing the message.

Figure 4-51 Output example

```
Output example

To be given later
```

Command name: STATUS

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Displays the status of some CFBMON options.

Command syntax

> status

Responses

The tool current configuration is displayed.

Figure 4-52 Output example

```
Output example

> status

CFBMON enabled: Y     Number of items in buffer: X
Data collection format:
  message: all
  bus: <ms 0> <card 1> <port 3> <shelf 0> <all>
       <ms 1> <card 1> <port 3> <shelf 0> <0> <30> <1>
  trace: no
Data display format:
  message: <ms 0> <card 1> <port 3> <shelf 0>
  bus: <ms 0> <card 1> <port 3> <shelf 0> <0> <5> <2>
  trace: no
```

Command name: HELP

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Displays help for tool commands.

Command syntax

> help <command name>

Parameter definitions

<command name> - Any CFBMON command.

Responses

Display help documentation for the command requested.

Figure 4-53 Output example

```
Output example

> help first
 Display the first (oldest) item in the buffer
```

Command name: QUIT

Command type

MENU

Command target

Supernode

Command availability

RES

Command description

Quit out of tool.

Warning

WARNING: This tool may pose a serious real-time impact to process MSCFBMNT and to the CM if it is left enabled after tool use. THEREFORE it is the responsibility of the tool user to properly disable and deallocate tool resources after use.

Command syntax

> quit

Figure 4-54 Output example

Output example

```
>quit
WARNING: This tool may pose a serious real-time impact to process
MSCFBMNT and to the CM if it is left enabled after tool use.
THEREFORE it is the responsibility of the tool user to properly disable and
deallocate tool resources after use.
CI:>
```

Alarms

Alarm name:

Not Applicable.

Conditions required to raise the alarm

Not Applicable.

Duration of the alarm

Not Applicable.

Examples

Not Applicable.

AQ1464mm.aa04

Directories

Table of New/Modified Directories

Table 4-67 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

N/A

Accessing directory:

N/A

To access

N/A

To return to CI

Commands

Table of New/Modified Commands

Table 4-68 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
MFRESTORE	NEW		DISKUTDIR

Command name: MFRESTORE

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The MFRESTORE command is used to restore multiple files, either from individual copies on tape or from a volume backup. This command will also provide the ability to specify up to 5 filenames on the command line or specify a filename that contains a list of files to restore, up to a limit of 1023 files. This command works strictly on STD tape and disk volume. FTFS is NOT supported in any way.

Warning

N/A

Command syntax

```
MFRESTORE <FILE OPTION>{ FILE      <DISK VOLUME NAME>       STRING
                                   <TAPE DEVICE NAME>       STRING
                                   <RESTORE FILE NAME>      STRING
                                           :
                                           :
                                           :

                         FILELIST  <DISK VOLUME NAME>       STRING
                                   <TAPE DEVICE NAME>       STRING
                                   <FILELIST FILE NAME>     STRING,

                         STDVOL    <DISK VOLUME NAME>       STRING
                                   <TAPE DEVICE NAME>       STRING
                                   <RESTORE VOLUME NAME>    STRING
                                  [<RESTORE FILE NAME>      STRING],
                                           :
                                           :
                                           :

                         STDVOLLIST   <DISK VOLUME NAME>    STRING
                                      <TAPE DEVICE NAME>    STRING
                                      <RESTORE VOLUME NAME> STRING
                                      <FILELIST FILE NAME>  STRING}
```

Parameter definitions

Table 4-69 MFRESTORE Parameter Definitions

PARAMETER	VALUE	DEFINITION
FILE OPTION	FILE	Restoring Individual files from copies on tape. Multiple filenames can be specified on the command line. At least 1 filename is required
	FILELIST	Restoring individual files from copies on tape. The restore file name actually specifies a file containing a list of files, up to 1023.
	STDVOL	Restoring files from a backup volume on tape. If no restore file names are entered, then the entire volume will be restored. Otherwise, the specified files will be restored from the volume backup.
	STDVOLLIST	Restoring files from a backup volume on tape. The restore file name is actually a file containing a list of files to be restored from the volume backup, up to 1023.
DISK VOLUME NAME	DEVICE name	SLM Volume name. Has the format of S00Dvvvv or S01Dvvvv, where vvvv is the volume portion of the disk volume name.
TAPE DEVICE NAME	STRING	SLM Tape Unit- S00T or S01T
RESTORE VOLUME NAME	FILE name	specifies which backup volume the given restore files are to be restored from tape.
RESTORE FILE NAME	FILE name	For FILE file option, Restore File Name is the name of an individual file copy on tape. Multiple files can be specified on the command line.
RESTORE FILE NAME	FILE name	For STDVOL file option, Restore File Name is an optional parameter representing a file to be restored from a backup volume on tape. Multiple files can be specified on the command line
FILELIST FILE NAME	FILE name	For FILELIST file option, Restore File Name is the name of a file containing a list of individual files on tape to be restored.Up to 1023 file names can be placed in this file
FILELIST FILE NAME	FILE name	For STDVOLLIST file option, Restore File Name is the name of a file containing a list of files to be restored from a backup volume on tape. Up to 1023 file names can be placed in this file

Sample File List Contents

Figure 4-55 Sample File List Contents

```
FILENAME1 <CR>
FILENAME2 <CR>
FILENAME3 <CR>
FILENAME4 <CR>
FILENAME5 <CR>
FILENAME6 <CR>
FILENAME7 <CR>
FILENAME8 <CR>
FILENAME9 <CR>

    :
    :
    :
    :

FILENAME1023 <CR>
```

Responses

Explanation:

System action:
N/A

User action:

Notes

Examples

Alarms

Alarm name:

N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AR0420mm.aa11

Directories

Not Applicable.

Table of New/Modified Directories

Table 4-70 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Not Applicable.

Accessing directory:

Not Applicable.

To access

Not Applicable.

To return to CI

Not Applicable.

Commands

Table of New/Modified Commands

Table 4-71 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	changed	n/a	TRAVER

Command name:

TRAVER

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

TRAVER (TRAnslation VERification) is a low level diagnostic tool that simulates a call from a user specified origination to a user specified destination. TRAVER examines and displays translation and routing data for a single call leg and verifies the translation tables. A TRAVER report can display the possible results of a call, the translation of a call, or both.

TRAVER can be used to verify the translation of E800 and AIN 0.1 responses. The ‘nsc‘ option is used to simulate a response from the E800 SCP for translation verification. The ‘ainres‘ option is used to simulate a response from the AIN 0.1 SCP for translation verification. Both the ‘nsc‘ and ‘ainres‘ options are optional TRAVER command line parameters.

As per this activity it is valid to simulate only one type of response processing at a time. For example, it is valid to simulate AIN 0.1 response processing separately from E800 response processing.

The ‘nsc‘ and ‘ainres‘ options may be used separately as follows:

> traver l <originating-DN> nsc <nsc-response-information>

e.g > traver l 6211170 nsc 1048814166211171 b

> traver l <originator-type><originator-address> ainres <response-info>

e.g > traver l 6211170 n cdn na 4166211171 ainres r01 ar b.

It is invalid to attempt to simulate both AIN 0.1 and E800 response processing at a time. Hence, use of the‘ainres‘ option specified after the ‘nsc‘ option has been specified on the TRAVER command line is deemed to be a syntax error. This activity enhances the TRAVER processing to display an error message and abort processing the TRAVER command when these options are specified on a TRAVER command line.

Warning

Not Applicable

Command syntax

This activity does not change the syntax of the TRAVER command..

Parameter definitions

This activity does not modify parameters to the TRAVER command.

Table 4-72 TRAVER Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

This activity creates one new system response in the form of an error message.

Response

ERROR: ainres option is incompatible with nsc option

Explanation:
This response is generated when the ‘ainres‘ option is specified after the ‘nsc‘ option has been specified on the TRAVER command line.

System action:
TRAVER displays the error message and aborts processing the TRAVER command. Control is returned to the CI..

User action:
The user must reenter the TRAVER command with only one of the ainres or nsc options. It is valid to simulate only one type of response processing at a time, and therefore usage of the ‘ainres‘ and ‘nsc‘ options are mutually exclusive.

Notes

Not Applicable.

Examples

Response Messages

Response message when both ‘ainres‘ and ‘nsc‘ options are used in the TRAVER command line

> traver l 6211170 nsc n cdn na 4166211171 tns na cic 0488 ainres r01 ar b

ERROR: ainres option is incompatible with nsc option

Alarms

No alarms are generated as a result of this activity.

Alarm name:

Not Applicable.

Conditions required to raise the alarm

Not Applicable.

Duration of the alarm

Not Applicable.

AR1289mm.aa09

Directories

Table of New/Modified Directories

Table 4-73 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SDMPMDIR	CHANGED		SUPERNODE	RES

Accessing directory: SDMPMDIR

To access

mapci;mtc;pm;post sdm 0

To return to CI

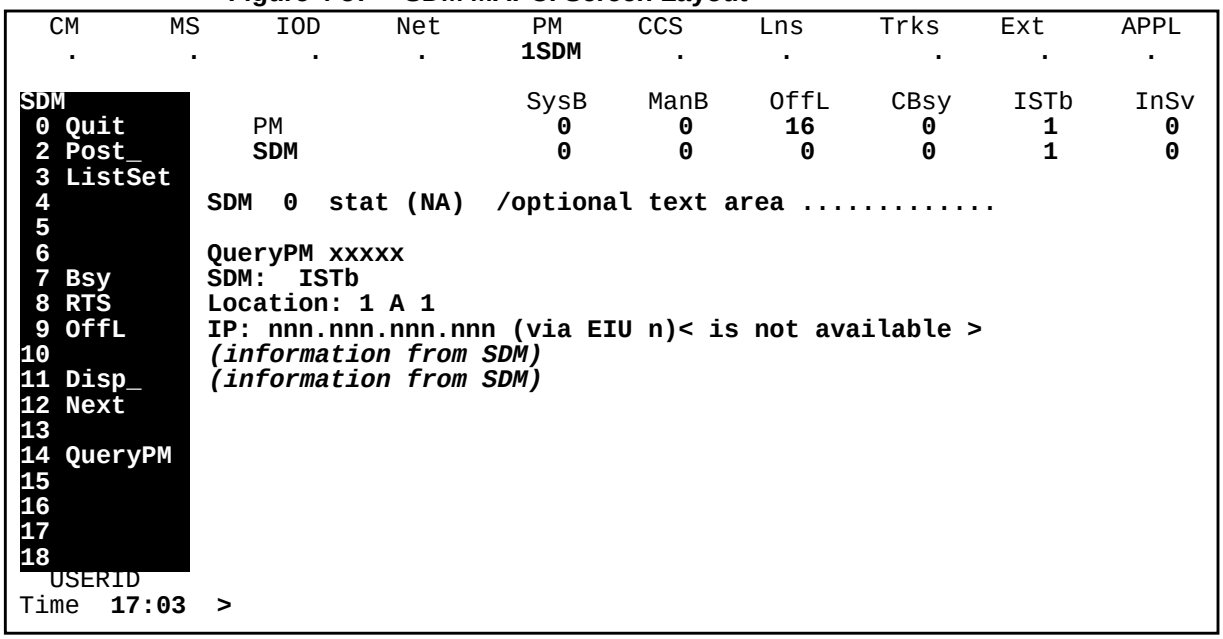
quit

Figure 4-56 SDM MAPCI Screen example

```
  CM       MS      IOD      Net       PM      CCS      Lns      Trks     Ext      APPL
   .        .        .        .     1SDM        .        .         .       .         .

SDM                                   SysB     ManB     OffL     CBsy     ISTb     InSv
 0 Quit          PM                     0        0       16        0        1        0
 2 Post_         SDM                    0        0        0        0        1        0
 3 ListSet
 4             SDM  0 ISTb
 5
 6             QueryPM xxxxx
 7 Bsy         SDM:  ISTb
 8 RTS         Location: 1 A 1
 9 OffL        IP: 47.35.2.21 (via EIU 0)
10             (information from SDM)
11 Disp_       (information from SDM)
12 Next
13
14 QueryPM
15
16
17
18
  USERID
Time  17:03  >
```

Figure 4-57 SDM MAPCI Screen Layout



Where:
(NA) - appears if there is no ip route availble to handle the CM to SDM messaging. This is usually because the lim or the EIU is not inservice.
/optional text area ..... is one of the following:

- <blank>
- /not responding
- /maintenance command in progress
- /state alignment in progress
- /communication service not available

Commands

Table of New/Modified Commands

Table 4-74 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
bsy	new		SDMPMDIR
rts	new		SDMPMDIR
offl	new		SDMPMDIR
querypm	changed		SDMPMDIR
pmreset	new		SDMPMDIR
connect	deleted		SDMPMDIR
isolate	deleted		SDMPMDIR

Command name: bsy

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to move the state of an SDM into the “ManB” state.

If the previous state was “Offl” then the “bsy” command will:

- enable communication to the SDM
- start SDM applications on the CM. (if the PM was previously OffL)

If the previous state was “SysB”, “InSv”, or “IsTb” then:

- a bsy command will be sent to the SDM if possible. Since this will likely be service affecting, a confirmation prompt will be presented.
- if SDM is not responding or the CM cannot communicate with the SDM, then the state will be changed to ManB

- if SDM should be responding and does not acknowledge the bsy or returns an error response then the state will remain as is and the bsy command will fail.
- The “force” option is used to override a failed return from the SDM.

Warning

Bsying an in service SDM will cause a loss of service.

Command syntax

```
Bsy:  Busy the SDM
Parms: [<Force> {FORCE}]
       [<Nowait> {NOWAIT}]
```

Parameter definitions

Table 4-75 BSY Command Parameters

PARAMETER	VALUE	DEFINITION
Force	FORCE	When entered this causes the SDM to go manb regardless of the connectivity with the SDM.
Nowait	NOWAIT	When entered, this parameter causes the mapci not to wait for a response from the maintenance subsystem for completion of the command.

Responses

Response 1

```
SDM 0 ManB initiated
```

Explanation:
The ManB command has been initiated and is still in progress.

System action:
A man busy request is sent to the SDM and an appropriate response was received back (if possible).

The state was updated in protected store and on the MAPCI displays (if any).

An alarm may be generated if required.

User action:
none

Response 2

```
SDM 0 ManB passed
```

Explanation:
The command has succeeded and the SDM is now in the ManB state.

System action:

A man busy request has been completed for the SDM and an appropriate response was received back.

A log is generated for the change of state.

User action:
none

Response 3

```
SDM 0 is in service. This command will cause a service interruption.
Do you wish to proceed?
Please confirm ("YES", "Y", "NO", or "N"):
```

Explanation:
The execution of this command could cause a service interruption. An affirmative response is required to continue otherwise the command is aborted.

System action:
Go ahead with the man busy action if the response is confirmed.

The state was updated in protected store and on the MAPCI displays (if any).

A log is generated for the change of state.

An alarm may be generated if required.

User action:

Response 4

Warning: SDM has failed the command.

```
<optional message from SDM>
         Use the FORCE option to override.
```

Explanation:
The command aborted because the SDM sent a failed completion response. This can be overridden by using the FORCE option however a state mismatch between the CM and SDM is likely.

System action:
A ManB command has been sent to the SDM but the SDM returned a failed indication. The state was not changed on the CM.

User action:
Determine reason for the failed return.

Response 5

```
SDM 0 maintenance is in progress; Busy action not taken.
```

Explanation:
The execution of this command could not be completed because a transaction is in progress for the SDM.

System action:
Display error message.

User action:
Wait until current transaction has been completed.

Response 6

```
No SDM Posted
```

Explanation:
No SDM was posted so no action can be taken.

System action:
Display message.

User action:
Post SDM 0.

Notes

Examples

Command name: rts

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to move the state of an SDM into an in-service (or ready for service) state. (i.e. InSv, ISTb, or SYSb state).

Warning

None

Command syntax

```
RTS:  Return (the SDM) to service
Parms: [<Force> {FORCE}]
       [<Nowait> {NOWAIT}]
```

Parameter definitions

Table 4-76 RTS Command Parameters

PARAMETER	VALUE	DEFINITION
Nowait	NOWAIT	When entered, this parameter causes the mapci not to wait for a response from the maintenance subsystem for completion of the command.
Force	FORCE	When entered, this parameter causes the state to change to SYSB regardless of the return from the SDM.

Responses

Response 1

```
SDM 0 return to service initiated
```

Explanation:
The RTS command has been initiated and is still in progress.

System action:
A Return To Service request is sent to the SDM and an appropriate response was received back (if possible).

User action:

Response 2

```
SDM 0 return to service passed
```

Explanation:
The RTS command has been initiated and is still in progress.

System action:
An RTS request has been completed by the SDM.

User action:

Response 3

```
SDM 0 maintenance is in progress; return to service action not taken.
```

Explanation:
The RTS command could not be completed because a transaction is in progress for the SDM.

System action:
Display the error message

User action:
Wait until current transaction is completed.

Response 4

```
SDM 0 is OffL; Return to Service action not taken.
```

Explanation:
The SDM is not in the correct state to allow the RTS command to proceed.

System action:
Display message.

User action:
Use command from the ManB state

Response 5

```
SDM 0 communication is down; State changed to SysB.
```

Explanation:
Communication with the SDM was not available so the RTS command caused the state to change to SysB.

System action:
Display message.

User action:
None.

Response 6

```
SDM 0 is already in service.
```

Explanation:
The SDM is already in either InSv, ISTb, or SYSb state.

System action:
Display message.

User action:
None.

Response 7

```
SDM 0 return to service failed.
<msg from sdm>
```

Explanation:
The SDM has responded with a failure response to the rts command.

System action:
Display the message received by the SDM and leave the state as ManB.

User action:
Investigate cause of failure.

Response 8

```
SDM 0 return to service failed. No response received.
```

Explanation:
The SDM has not responded with a completion message within a predetermined time period.

System action:
Display the error message and leave the state as ManB.

User action:
Investigate cause of failure.

Response 9

```
No SDM Posted
```

Explanation:
No SDM was posted so no action can be taken.

System action:
Display message.

User action:
Post SDM 0.

Notes

Examples

Command name: offl

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to move the state of an SDM (PM) into the “OffL” state.

Warning

This command will stop SDM related applications on the CM and if the IP screening flag is set in table IPNETWRK then IP communications with SDM will also be stopped.

Command syntax

```
OffL:  Offline the SDM
Parms: [<Nowait> {NOWAIT}]
```

Parameter definitions

Table 4-77 OffL Command Parameters

PARAMETER	VALUE	DEFINITION
Nowait	NOWAIT	When entered, this parameter causes the mapci not to wait for a response from the maintenance subsystem for completion of the command.

Responses

Response 1

```
SDM 0 OffL initiated
```

Explanation:
The state change of the SDM to OffL has been initiated.

System action:
An OffL message has been sent to the SDM and a wait state has been entered to allow time to transmit the message before setting the SDM in the OffL state.

User action:

Response 2

```
SDM 0 OffL passed
```

Explanation:
The state change of SDM to OffL has been completed either by receipt of a response from the SDM or by exceeding a time-out.

System action:
Update the state to OffL.

User action:
None

Response 3

```
SDM 0 not in ManB state. OffL action not taken.
```

Explanation:
The SDM was not in the ManB state so the command could not proceed.

System action:
Display message.

User action:
Post SDM 0.

Response 4

```
SDM 0 maintenance is in progress; OffL action not taken.
```

Explanation:
The OffL command could not be completed because a transaction is in progress for the SDM.

System action:
Display the error message

User action:
Wait until current transaction is completed.

Response 5

```
SDM 0 is already OffL.
```

Explanation:
The SDM is already in the OffL state.

System action:
Display message.

User action:
None.

Response 6

```
No SDM Posted
```

Explanation:
No SDM was posted so no action can be taken.

System action:
Display message.

User action:
Post SDM 0.

Notes

Examples

Command name: querypm

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to query

- the state of the SDM
- the location as defined in table EXNDINV
- the SDM IP addresses and the EIU serving this SDM
- optionally information retrieved from SDM concerning fault, load, status, or configuration.

Warning

None.

Command syntax

```
QueryPM:  Query information about the posted SDM.
Parms: [<Query Type> {FLT,
                      LOAD,
                      STATUS,
                      CONFIG}]
```

Parameter definitions

Table 4-78 QUERYPM Command Parameters

PARAMETER	VALUE	DEFINITION
Query Type	FLT	fault information
	LOAD	load information from the SDM
	STATUS	status information from the SDM
	CONFIG	configuration information from the SDM

Responses

Response 1

```
SDM:  ISTb
Location: 1 a 1
IP: 47.35.2.21 (via EIU 0)
SDM: (information from requested SDM)
SDM: (information from requested SDM)
```

Explanation:
The current state is displayed as well as the location, IP address and connecting EIU.

If a request type is specified then the response text from the SDM is displayed on the screen when it is received.

System action:
Display information concerning SDM. If requested, also send a querypm message to the SDM and display the response.

User action:

Response 2

```
SDM:  ISTb
Location: 1 a 1
IP: 47.35.2.21 (via EIU 0)
SDM: no response
```

Explanation:
As above except no response was received from the SDM.

System action:
A message was sent to the SDM but no response to the query was received before a time-out occurred.

User action:

Response 3

```
SDM:  ManB
Location: 1 a 1
IP: 47.35.2.21 ** no EIU **
```

Explanation:
As above the current state is displayed as well as the location, IP address and connecting EIU. However, in this case the IP address of the SDM does not correspond to any subnet served by any of the EIUs on this switch.

System action:
Display information concerning SDM.

User action:

Response 4

```
SDM:  ISTb        /not responding
Location: 1 a 1
IP: 47.35.2.21 (via EIU 0)
```

Explanation:
The current state is displayed as well as the location, IP address and connecting EIU for a simplex SDM.

System action:
Display information concerning SDM.

User action:

Response 5

```
Communication to SDM 0 is down.
```

Explanation:
A querypm command has been entered that requests information from an SDM that cannot be communicated with because communication is not currently available (most likely an indication of EIU failure).

System action:
Display message.

User action:

Notes

Examples

Response 6

```
No SDM Posted
```

Explanation:
No SDM was posted so no action can be taken.

System action:
Display message.

User action:
Post SDM 0.

Notes

Examples

Command name: pmreset

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to reset (reboot) the SDM via a message to the SDM.

The SDM must be in the man bsy state for this command to succeed.

Warning

This command causes the SDM to reboot or to halt. If the SDM is halted then action must be taken locally before the SDM can be rebooted.

Command syntax

```
PMReset:  Reset the SDM. Defaults to REBOOT
Parms: [<Reset_typet> {REBOOT, HALT}]
       [<Nowait> {NOWAIT}]
```

Parameter definitions

Table 4-79 PMRESET Command Parameters

PARAMETER	VALUE	DEFINITION
Reset_type	REBOOT	Default. Sends a reboot message to the SDM.
	HALT	When entered a message is sent to the SDM requesting that it halt. This command is primarily used to enable hardware replacement proceedures.
Nowait	NOWAIT	When entered, this parameter causes the mapci not to wait for a response from the maintenance subsystem for completion of the command.

Responses

Response 1

```
SDM 0 pmreset reboot initiated.
```

Explanation:
A pmreset reboot has been sent to the SDM and an initial response has been received.

System action:
A pmreset reboot command was sent to the SDM which acknowledged the command and is now checking to see if it can be executed.

User action:

Response 2

```
SDM 0 pmreset halt initiated.
```

Explanation:
A pmreset halt has been sent to the SDM and an initial response has been received.

System action:
A pmreset halt command was sent to the SDM which acknowledged the command and is now checking to see if it can be executed.

User action:

Response 3

```
SDM 0 pmreset reboot passed.
```

Explanation:
A command completion message has been received from the SDM.

System action:
The SDM is stopping its applications and will soon reboot.

User action:

Response 4

```
SDM 0 pmreset halt will shutdown the SDM.
It can only be restarted at the SDM frame.
Do you want to continue?(Yes/No)
```

Explanation:
A command confirmation message has been sent to the User requesting confirmation before continuing.

System action:
Continues with command on confirmation. Aborts on No.

User action:

Response 5

```
SDM 0 pmreset halt passed.
```

Explanation:
A command completion message has been received from the SDM.

System action:
The SDM is stopping its applications and will soon halt.

User action:

Response 6

SDM 0 is <state>; Reset action not taken.

Explanation:
The SDM must be in the ManB state for the PMReset command to be executed.

System action:
Display error message.

User action:

Response 7

```
SDM 0 communication is down; Reset action not taken.
```

Explanation:
The message could not be sent to the SDM because of no communication path.

System action:
Display error message

User action:

Response 8

```
SDM 0 pmreset not successful.
<message from SDM displayed here.>
```

Explanation:
An unsuccessful response was received from the SDM. The message from the SDM is also displayed.

System action:
Display the message from the SDM.

User action:

Response 9

```
SDM 0 pmreset <type> success unknown. Timed out.
```

Explanation:
The PMReset command was sent to the SDM but no response was received.

System action:
Abort transaction and display error message.

User action:

Response 10

```
No SDM Posted
```

Explanation:
No SDM was posted so no action can be taken.

System action:
Display message.

User action:
Post SDM 0.

Notes

Examples

Alarms

Alarm name: SYSB

Conditions required to raise the alarm

If the SDM state goes SYSB then this alarm is raised on the pm level of the alarm banner. The criticality of this alarm is set in the EXNDINV table.

Duration of the alarm

This alarm will remain until the state is changed.

Alarm name: MANB

Conditions required to raise the alarm

If the SDM aggregate state goes MANB then this alarm is raised on the pm level of the alarm banner. The criticality of this alarm is major.

Duration of the alarm

This alarm will remain until the state is changed.

Alarm name: ISTB

Conditions required to raise the alarm

If the SDM aggregate state goes ISTb then this alarm is raised on the pm level of the alarm banner. The criticality of this alarm is set to minor for a simplex SDM.

Duration of the alarm

This alarm will remain until the state is changed.

AR1290mm.aa40

Directories

Table of New/Modified Directories

Table 4-80 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
CM	CHANGED		68K/BRISC	RES
PROGDIR	CHANGED		68K/BRISC	RES
MMTEST	CHANGED		68K	NONRES
MMTEST	NEW		BRISC	NONRES
CMINFO	CHANGED		68K/BRISC	RES

Accessing directory: CM

To access

MAPCI; MTC; CM

To return to CI

QUIT ALL

Accessing directory: PROGDIR

To access

N/A

To return to CI

N/A

Accessing directory: MMTEST

To access

MMTEST

To return to CI

QUIT

Accessing directory: CMINFO

To access

CMINFO

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 4-81 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SYNC	CHANGED		CM
SWAPHW	NEW		CM
UNSWAPHW	NEW		CM
CLRALARM	NEW		CM
MMINFO	CHANGED		PROGDIR
INITHIST	CHANGED (68K) NEW (BRISC)		MMTEST
PRTHIST	CHANGED (68K) NEW (BRISC)		MMTEST
CLREVENT	CHANGED (68K) NEW (BRISC)		MMTEST
CLRCARD	CHANGED (68K) NEW (BRISC)		MMTEST
ADDEVENT	NEW (68K and BRISC)		MMTEST
ADDFLT	NEW (68K and BRISC)		MMTEST
PRTHIST	NEW (68K and BRISC)		CMINFO

Command name: SYNC

The only changes to the operation of this command is the creation of new responses, which will be displayed depending on the state of the new alarms and manual maintenance procedures introduced by this feature.

Command type

MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

RES

Command description

The command places the CPUs of the Computing Module into sync-matched mode.

Warning

N/A

Command syntax

```
Sync - Synchronize the CPUs.
Parms:  [<Configuration> {OPTIMUM}]
        [<Sync Type> {NORMAL,
                      NOMATCH,
                      NOTEST,
                      NOHANDS}]
        [<Options>... {NOWAIT,
                       NOPROMPT,
                       ECCON,
                       FORCE}]
```

Parameter definitions

Table 4-82 SYNC Parameter Definitions

PARAMETER	VALUE	DEFINITION
<Configuration>	OPTIMUM	Constant, Optional
<Sync Type>	{ NORMAL, NOMATCH, NOTEST, NOHANDS }	Variable, Optional
<Options>	{ NOWAIT, NOPROMPT, ECCON, FORCE }	Variable, Optional, Repeatable

Responses

The responses described below are only those which are being created or changed within this feature.

Response 1

```
Synchronization was dropped due to a mismatch event.

Please ensure that all mismatch logs have been properly analyzed,
and that all appropriate recovery actions have been taken before
continuing with the synchronization attempt. Regaining sync with
unresolved mismatch-causing conditions could compromise system
integrity.

The MMNoSy alarm should be cleared prior to attempting CM
synchronization. Re-enter the SYNC command with the FORCE option
in order to override this condition.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60)

The response is generated on any manual sync attempt when the MMNoSy alarm is raised. Its intention is to ensure that site personnel do not arbitrarily place the CM back in sync after a fault was detected by the mismatch handling software, without first analyzing the mismatch logs and taking the appropriate recovery actions.

System action:

N/A

User action:

Follow NTP directives regarding mismatch log analysis, including contacting next level of support if necessary. The MMNoSy alarm must be cleared as part of this manual recovery from a mismatch.

If you wish to override the MMNoSy alarm and synchronize the CM anyway, re-enter the SYNC command with the FORCE option specified.

Response 2

```
No record has been made of any replacement of hardware by
manual action. Manual card replacements must be recorded
via the SWAPHW command in order to ensure proper fault
isolation in future mismatch events. Proceed with CM
synchronization only if no hardware has been replaced.

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60)

System action:

N/A

User action:

If no hardware has been replaced since synchronization was dropped, enter Y or YES to confirm that you wish to proceed with synchronization of the CPUs.

If any hardware has been replaced since synchronization was dropped, enter N or NO and enter the appropriate SWAPHW commands to properly record the hardware changes with the software maintenance systems. Following execution of the appropriate commands, re-enter the SYNC command.

Response 3

```
The FORCE option has been specified, and the MMNoSy alarm is
raised. System integrity could be compromised if synchronization
is attempted before all appropriate analysis and recovery actions
have been performed.

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

The response is displayed if the FORCE option was specified, and the MMNoSy alarm is raised. Synchronizing the CM without having properly followed the mismatch recovery procedures documented in the NTPs could potentially compromise system integrity. This response indicates this and requests confirmation from the user before proceeding with the sync attempt.

System action:

If Y or YES is entered, the MMNoSy alarm will be cleared. A log will be generated indicating that the FORCE option was entered and confirmed, including the terminal ID of the user performing the action.

User action:

Entering Y or YES to this prompt confirms that the documented mismatch recovery procedure is being violated. Placing the CM in synchronization without having performed all appropriate analysis of potentially unstable hardware could compromise system integrity.

Entering N or NO will abort the synchronization attempt so that the mismatch recovery process can be followed.

Response 4

```
 The following cards have been reported as being replaced
 since the last drop of synchronization. Verify that these
 cards truly reflect all hardware which has been replaced
 before continuing with the synchronization attempt.

 Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
<site><flr><rpos><bay>  <shf><desc>       <slot> <pec> <side>

 Do you wish to continue?
 Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed if any manual card replacements have been recorded since the last drop of synchronization.

System action:

If the prompt is confirmed with Y or YES, all mismatch history database information for all events which implicate any of the replaced circuit packs will be deleted.

User action:

If the response accurately displays all hardware which has been replaced since the last drop sync, enter Y or YES to confirm that you wish to proceed with synchronization of the CPUs.

If the response does not accurately display all hardware which has been replaced since synchronization was dropped, enter N or NO and enter the appropriate SWAPHW or UNSWAPHW commands in order to properly record the hardware changes with the software maintenance systems. Following execution of the appropriate commands, re-enter the SYNC command.

Notes

If the appropriate commands had been entered to record the fact that hardware had been manually changed out since the last drop sync, the mismatch history database will be updated following the successful synchronization. All mismatch history data pertaining to the replaced cards will be deleted.
The MMNoSy alarm will be cleared following a successful synchronization.

Examples

Example 1

In this example, synchronization had been dropped due to a mismatch, and the MMNoSy alarm is still raised when the SYNC command is entered.

```
> SYNC

Synchronization was dropped due to a mismatch event.

Please ensure that all mismatch logs have been properly analyzed,
and that all appropriate recovery actions have been taken before
continuing with the synchronization attempt. Regaining sync with
unresolved mismatch-causing conditions could compromise system
integrity.

The MMNoSy alarm should be cleared prior to attempting CM
synchronization. Re-enter the SYNC command with the FORCE option
in order to override this condition.

>
```

Example 2

In this example, synchronization had been dropped due to a mismatch, and the MMNoSy alarm is still raised when the SYNC command is entered. The FORCE option is used to override the check.

```
> SYNC FORCE
 The FORCE option has been specified, and the MMNoSy alarm is
 raised. System integrity could be compromised if synchronization
 is attempted before all appropriate analysis and recovery actions
 have been performed.

 Do you wish to continue?
 Please confirm (“YES”, “Y”, “NO”, or “N”): Y

 >
```

Example 3

In this example, synchronization had been dropped due to a mismatch, and the MMNoSy alarm had been cleared via the CLRALARM command, but no card replacements had been recorded via the SWAPHW command.

```
> SYNC

No record has been made of any replacement of hardware by
manual action. Manual card replacements must be recorded
via the SWAPHW command in order to ensure proper fault
isolation in future mismatch events. Proceed with CM
synchronization only if no hardware has been replaced.

Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"): Y

Maintenance action submitted.
Synchronization successful.

>
```

Example 4

Synchronization had been dropped due to a mismatch event. As part of the normal mismatch analysis, the CPU circuit pack on the inactive plane was changed and properly recorded using the SWAPHW command, and the MMNoSy alarm was cleared using the CLRALARM command.

```
> SYNC

The following cards have been reported as being replaced
since the last drop of synchronization. Verify that these
cards truly reflect all hardware which has been replaced
before continuing with the synchronization attempt.

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       19   9X13BC FRNT

Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"): YES

Maintenance action submitted.
Sychronization successful.

>
```

Command name: SWAPHW

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

RES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command is used to notify the maintenance software system of any manual card replacements which have been performed since the CM was last in sync.

Warning

This command will result in the clearing of mismatch history database information on the next manual SYNC attempt. System integrity could be compromised if this database is not accurately maintained by entering card replacement information via the SWAPHW command.

Command syntax

```
SWAPHW  <which> { SLOT    <shelf>     {0 TO 1}
                          <slot>      {1 TO 38}
                          <side>      { FRNT,
                                        BACK },
                PLANE,
                QUERY },
        [<Option>]  { NOPROMPT }
```

Parameter definitions

Table 4-83 SWAPHW Parameter Definitions

PARAMETER	VALUE	DEFINITION
<which>	{ SLOT, PLANE, QUERY }	Variable, Mandatory
<shelf>	{ 0 TO 1}	Numeric, Mandatory
<slot>	{ 1 TO 38 }	Numeric, Mandatory
<side>	{ FRNT, BACK }	Variable, Mandatory
<option >	{ NOPROMPT }	Constant, Optional

The SLOT option is used to specify that a single circuit pack has been replaced. The shelf, slot and side values are used to uniquely identify the circuit pack.
The PLANE option should be used only during the manual recovery following a plane-level “Memory Fault, Correctable” threshold being exceeded, as indicated by the appropriate MFC111 log.
The QUERY option is used to display all cards which have previously been entered via the SWAPHW command. If multiple cards have been replaced, this command can be used to determine which card replacements have been recorded so far, and to ensure that all cards have been correctly specified.

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
WARNING: All “Memory Fault, Correctable” history will be
          deleted during the next manual SYNC attempt.
          The PLANE option of this command should be used
          only during manual recovery from a MFC Plane threshold
          being exceeded.

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This prompt confirms that the PLANE argument was entered and that the site is performing a manual recovery from a MFC plane threshold being exceeded. This will result in all MFC history being invalidated.

System action:

N/A

User action:

The MFC history database enables the software maintenance systems to identify suspected faulty hardware, before the point where the hardware actually fails completely. If an excessive number of MFC events occur, but are not localized to one particular memory card, this could cause the MFC plane threshold to be exceeded, as indicated by the appropriate MFC111 log. This database should only be invalidated as part of the manual recovery for this type of fault indication. If the manual recovery from an exceeded MFC plane threshold is being performed, enter Y or YES to confirm. Otherwise, enter N or NO.

Response 3

```
 WARNING: You have indicated that the following circuit pack
          has been replaced. Please verify that the following
          list accurately reflects the location of the replaced
          circuit pack, and that the displayed PEC code matches
          the pack currently equipped in that slot:

 Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
<site><flr><rpos><bay>  <shf><desc>       <slot> <pec> <side>

 Do you wish to continue?
 Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This prompt echoes back the parameter data entered by the user when a single circuit pack has been indicated as being replaced via the CARD option of the SWAPHW command. Confirmation is required before the circuit pack is actually recorded as being replaced.

System action:

N/A

User action:

If the cardlist accurately represents the location of the circuit pack which was replaced, enter Y or YES.

If not, enter N or NO and re-enter the SWAPHW command with the correct arguments.

Response 4

```
 Card replacement has been recorded.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response confirms that the user entered Y or YES to the prompt.

System action:

The specified card is added to the list of replaced cards. The actual updates to the mismatch history database will not take place until the next manual SYNC attempt.

User action:

N/A

Response 5

```
Aborted. Card replacement has NOT been recorded.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response confirms that the user entered N or NO to the prompt.

System action:

No card replacement information is stored.

User action:

N/A

Response 6

```
No circuit pack replacements have been recorded.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed when the QUERY argument is supplied to the SWAPHW command, and no circuit packs have been recorded as having been replaced.

System action:

N/A

User action:

N/A

Response 7

```
The following circuit packs have been identified as having been
replaced. The displayed PEC codes correspond to the cards which
currently reside in the appropriate slots.

 Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
<site><flr><rpos><bay>  <shf><desc>       <slot> <pec> <side>
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed when the QUERY argument is supplied to the SWAPHW command, and circuit pack replacements have been previously recorded via the SWAPHW command.

System action:

N/A

User action:

N/A

Notes

N/A

Examples

Example 1

Replacement of the CPU circuit pack on inactive plane 0.

```
> SWAPHW 0 19 FRNT

WARNING: You have indicated that the following circuit pack
          has been replaced. Please verify that this accurately
          reflects which circuit pack has been changed, and that
          the displayed PEC code matches what is currently
          equipped in that slot:

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       19   9X13BC FRNT

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”): Y

Card replacement has been recorded.

>
```

Example 2

Command is entered to record replacement of memory card 3 on plane 1 of the CM shelf, but the data is erroneously entered.

```
> SWAPHW 0 24 FRNT

WARNING: You have indicated that the following circuit pack
          has been replaced. Please verify that this accurately
          reflects which circuit pack has been changed, and that
          the displayed PEC code matches what is currently
          equipped in that slot:

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       24   9X14DB FRNT

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”): NO

Aborted. Card replacement has NOT been recorded.
```

>

Example 3

The SWAPHW PLANE command is entered as part of the normal manual recovery actions following a MFC plane threshold being exceeded.

```
> SWAPHW PLANE

WARNING: All “Memory Fault, Correctable” history will be
          deleted during the next manual SYNC attempt.
          The PLANE option of this command should be used
          only during manual recovery from a MFC Plane threshold
          being exceeded.

Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”): Y

>
```

Example 4

The SWAPHW QUERY command is entered after several circuit pack replacements had previously been recorded.

```
> SWAPHW QUERY

The following circuit packs have been identified as having been
replaced. The displayed PEC codes correspond to the cards which
currently reside in the appropriate slots.

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       19   9X13BC FRNT
HOST  00  A00   DPCC 0  18  CM 0:0:0       24   9X14DB FRNT

>
```

Command name: UNSWAPHW

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

RES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command is used to back out any card replacement information that had been incorrectly entered via the SWAPHW command.

Warning

N/A

Command syntax

```
UNSWAPHW  <shelf>      {0 TO 1}
          <slot>       {1 TO 38}
          <side>       { FRNT,
                         BACK }
          [<Option>]   { NOPROMPT }
```

Parameter definitions

Table 4-84 UNSWAPHW Parameter Definitions

PARAMETER	VALUE	DEFINITION
< shelf>	{ 0 TO 1 }	Numeric, Mandatory
<slot>	{ 1 TO 38 }	Numeric, Mandatory
<side>	{ FRNT, BACK }	Variable, Mandatory
< Option >	NOPROMPT	Constant, Optional

The SHELF, SLOT and SIDE parameters uniquely identify the circuit pack that should be indicated as NOT having been replaced.
The NOPROMPT option will cause the manual confirmation step to be bypassed, eliminating the need for manual intervention to allow the command to be executed to completion.

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

The recording of manual card replacements in an important part of ensuring that the fault-handling software is able to accurately isolate faulty hardware components. As such, it is important to ensure that the information is accurately entered. If, however, a card has incorrectly been recorded as being replaced via the SWAPHW command, or if a circuit pack which was replaced, is then replaced again with the original circuit pack, then the UNSWAPHW command should be used to back out this change.

System action:

N/A

User action:

N/A

Response 2

```
 WARNING: You have indicated that the following circuit pack has
          NOT been replaced. Please verify that the displayed
          PEC code accurately reflects the circuit pack that
          currently resides in the slot.

 Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
<site><flr><rpos><bay>  <shf><desc>       <slot> <pec> <side>

 Do you wish to continue?
 Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This prompt echoes back the parameter data entered by the user, and requires that it be verified before actually recording the card as not being replaced.

System action:

No system action is performed.

User action:

If the displayed cardlist correctly describes the circuit pack which was erroneously entered in a SWAPHW command, then enter Y or YES to confirm.

If the card description does not match the desired circuit pack, enter N or NO.

Response 3

```
 Aborted. This card is still recorded as having been replaced.
```

Explanation:

This response corresponds to the user entering N or NO to the above prompt. In this case, the UNSWAP command is aborted and the card replacement information is not affected.

System action:

N/A

User action:

If necessary, re-enter the UNSWAPHW command with the correct arguments.

Response 4

```
This card has been recorded as NOT having been replaced.
```

Explanation:

This response confirms that the user typed Y or YES to the prompt, and that the card replacement has been backed out.

System action:

The card is removed from the list of replaced cards. Following a successful manual re-synchronization of the CM, the mismatch history information pertaining to this card will NOT be deleted.

User action:

N/A

Notes

N/A

Examples

Example 1

The CPU circuit pack on inactive plane 0 had been replaced. First, the SWAPHW command is erroneously entered and confirmed, then the UNSWAPHW command is entered to back out the change, then the SWAPHW command is correctly entered.

```
> SWAPHW 0 18 FRNT

WARNING: You have indicated that the following circuit pack
          has been replaced. Please verify that this accurately
          reflects which circuit pack has been changed, and that
          the displayed PEC code matches what is currently
          equipped in that slot:

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       18   9X12AC FRNT

Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"): Y
```

```
Card replacement has been recorded.

> UNSWAP 0 18 FRNT

WARNING: You have indicated that the following circuit pack has
          NOT been replaced. Please verify that the displayed
          PEC code accurately reflects the circuit pack that
          currently resides in the slot.

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       18   9X12AC FRNT

Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"): Y

This card has been recorded as NOT having been replaced.

> SWAPHW 0 19 FRNT

WARNING: You have indicated that the following circuit pack
          has been replaced. Please verify that this accurately
          reflects which circuit pack has been changed, and that
          the displayed PEC code matches what is currently
          equipped in that slot:

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       19   9X13BC FRNT

Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"): Y

Card replacement has been recorded.

>
```

Command name: CLRALARM

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

RES

Command description

This command is used to clear CM level alarms (other than CMMNT alarms, which can be disabled using the DISABLE command on the CMMNT MAP level).

Not all alarms can be cleared by this command. Since the mismatch-related alarms (MMNoSy, MMSync and MemCor) may not always require the same manual recovery steps to be taken, this mechanism is provided to clear the alarms after all necessary analysis of the mismatch log data has been performed.

Warning

Alarms should be cleared by this command only when specifically instructed to do so by the appropriate alarm-clearing and troubleshooting documentation.

Command syntax

```
CLRALARM - Clear the specified CM-level alarm
Parameters: <alarm>     { MMNOSY,
                          MMSYNC,
                          MEMCOR }
```

Parameter definitions

Table 4-85 CLRALARM Parameter Definitions

PARAMETER	VALUE	DEFINITION
<alarm>	{ MMNOSY, MMSYNC, MEMCOR }	Variable, Mandatory

Responses

Response 1

```
The <alarm> will be cleared.
Do you which to continue?
Please confirm (“YES”, “Y”, “NO”, “N”):
```

Explanation:

This response is visible on SUPERNODE targets.

This response echoes back the parameters and required confirmation from the user before proceeding.

System action:

N/A

User action:

If you wish to continue and clear the specified alarm, enter Y or YES. If you do not wish to clear the specified alarm, enter N or NO.

Response 2

```
The <alarm> alarm has been cleared.
```

Explanation:

This response is visible on SUPERNODE targets.

This response confirms that the specified alarm has been cleared.

System action:

The alarm state is set to cleared, regardless of its previous state. A CM176 log is generated indicating which alarm has been cleared.

User action:

N/A

Notes

N/A

Examples

Example 1

Sync was dropped due to a mismatch event, resulting in the raising of the MMNoSync alarm. Following analysis of the mismatch logs and replacement of all appropriate hardware circuit packs, the alarm must be manually cleared in order to allow a normal manual CM synchronization attempt.

```
> CLRALARM MMNOSY

The MMNoSy alarm has been cleared.
```

Command name: MMINFO

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

RES

Command description

This command displays full decoded information from past mismatch events on the Computing Module.

Warning

N/A

Command syntax

```
MMINFO - Display data about the last few mismatches.
    SUMMARY          : One liner for each mismatch (Default).
    CLEAR            : Clear all saved mismatch data.
    NEW              : Display mismatches since last MMINFO NEW.
    LAST    <DECODE> : Last mismatch only.
    RESTART <DECODE> : The mismatch before last restart.
    ALL     <DECODE> : All mismatches in MMINFO.
    <n>     <DECODE> : Specific mismatch number.

<DECODE> displays a thorough mismatch dump including all register
        and FOIB (for Series70) contents.

        Without the <DECODE> option, mismatch information is
        displayed in a brief, compact form. This is the default.

Parms: [<Which Option >
                {SUMMARY,
                  CLEAR,
                  NEW,
                  LAST [<Format> {DECODE}],
                  RESTART [<Format> {DECODE}],
                  ALL [<Format> {DECODE}]}]
                  [<Mismatch no. > {0 TO 32767}] [<Format> {DECODE}]
```

Parameter definitions

Table 4-86 MMINFO Parameter Definitions

PARAMETER	VALUE	DEFINITION
<Which Option>	{ SUMMARY, CLEAR, NEW, LAST, RESTART, ALL, <Mismatch no.> }	Variable, Optional
<Mismatch no. >	{ 0 TO 32767 }	Numeric, Optional
<Format>	DECODE	Constant, Optional

Responses

The responses described below are only those being created or changed within this feature.

Response Supernode (68K version)

```
*** Note *** This is the Brief format for displaying mismatch
              information. The user can have more detailed
```

```
              output through invoking ‘DECODE’ option.


      Mismatch number seqno date  time
      Activity: Start: CPU X, Final: CPU X
      Mismatch found:   mismatch_text
      System recovery action recovery_text
      Status of recovery: rc_status_text

CPU 0                          CPU 1           Equal
                 Data v_txt valid               Data v_txt valid


  Module Entry:  e_text                         e_text                C
     AHR Value:  hhhhhhhh                       hhhhhhhh              C
      AHR Data:  hhhhhhhh                       hhhhhhhh              C
       MAU AHR:  hhhhhhhh                       hhhhhhhh              C
           MCR:  hhhhhhhh                       hhhhhhhh              C
  Owner #XXXX,#XXXX: Module m_txt               Owner #XXXX,#XXXX: Module m_txt

PROCESSOR REGISTERS:   Not                            Not                            Not
          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal
    A1: hhhhhhhh/hhhhhhhh C     A2: hhhhhhhh/hhhhhhhh C     A3: hhhhhhhh/hhhhhhhh C
    A4: hhhhhhhh/hhhhhhhh C     A5: hhhhhhhh/hhhhhhhh C     A6: hhhhhhhh/hhhhhhhh C
    D1: hhhhhhhh/hhhhhhhh C     D2: hhhhhhhh/hhhhhhhh C     D3: hhhhhhhh/hhhhhhhh C
    D4: hhhhhhhh/hhhhhhhh C     D5: hhhhhhhh/hhhhhhhh C     D6: hhhhhhhh/hhhhhhhh C
    D7: hhhhhhhh/hhhhhhhh C
    PC: hhhhhhhh/hhhhhhhh C    USP: hhhhhhhh/hhhhhhhh C    ISP: hhhhhhhh/hhhhhhhh C
   MSP: hhhhhhhh/hhhhhhhh C     SR:     hhhh/hhhh     C ICACHE:    hhhh/hhhh     C

VIRTUAL REGISTERS:           Not                                    Not
              CPU 0/CPU 1     Equal                  CPU 0/CPU 1     Equal
      FIR:     hhhh/hhhh        C       MM_Ctrl:     hhhh/hhhh        C
  OS Timer:    hhhh/hhhh        C      MAU_Ctrl:     hhhh/hhhh        C
  MAU_err:     hhhh/hhhh        C      Clk_stat:     hhhh/hhhh        C
       FC:     hhhh/hhhh        C           IRM:     hhhh/hhhh        C
  ProcStat:    hhhh/hhhh        C      SRam_Err:     hhhh/hhhh        C
   PerInt:     hhhh/hhhh        C      Acc Prot:     hhhh/hhhh        C
 Mate_FIR:     hhhh/hhhh        C    MateFIR_OK:        a/a           C
 MCR_STAT:        h/h


MTC INFO:       CPU 0       CPU 1
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh

USER                                        INTERRUPT
  STACK DUMP:     CPU 0        CPU 1          STACK DUMP:   CPU 0        CPU 1
                 hhhhhhhh    hhhhhhhh                       hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                       hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                       hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                       hhhhhhhh    hhhhhhhh
hhhhhhhh    hhhhhhhh                          hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                       hhhhhhhh    hhhhhhhh

TRACEBACK:       CPU 0                              CPU 1
   hhhhhhhh=modnm: proctxt+#hhhh         hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh         hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh         hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh         hhhhhhhh=modnm: proctxt+#hhhh
```

```
   hhhhhhhh=modnm: proctxt+#hhhh          hhhhhhhh=modnm: proctxt+#hhhh

MEMORY CONFIGURATION :
              CPU 0                                  CPU 1
  Card 0 has x memsiz memory modules.    Card 0 has x memsiz memory modules.
  Address ranges are:                    Address ranges are:
    Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (s)
    Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (s)
    Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (s)
  Card 1 has x memsiz memory modules.    Card 1 has x memsiz memory modules.
  Address ranges are:                    Address ranges are:
    Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (f)
    Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (f)
    Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (f)


              o                                      o
              o                                      o
              o                                      o


  Card n has x memsiz memory modules.    Card n has x memsiz memory modules.
  Address ranges are:                    Address ranges are:
    Mod 0: mem_range_txt          (s)      Mod 0: mem_range_txt           (s)
    Mod 1: mem_range_txt          (s)      Mod 1: mem_range_txt           (s)
    Mod 2: mem_range_txt          (s)      Mod 2: mem_range_txt           (s)
```

Explanation:

This is the system response for the following commands

```
MMINFO LAST
  -- or --
MMINFO RESTART
  -- or --
MMINFO seqno
```

when they are invoked on a 68K based sync-match node equipped with 9X13xx processor pack.

FIELD	VALUE	DESCRIPTION
Mismatch seqno	posint	Specifies the Mismatch log sequence number.
Start: CPU X	0 or 1	The active CPU before mismatch.
Final: CPU X	0 or 1	The active CPU after mismatch.
mismatch_text	Text	Identifies what fault has been isolated by mismatch handler.

recovery_text	Text	Identifies which recovery procedure need to take place.
rc_status_text	Text	Identifies the status of the recovery action.
Data v_txt valid	Text	Either 'Data is valid' or 'Data IS NOT valid' character string.
Module Entry e_text	Text	Identifies Entry module name.
Not Equal 'C'	'*'/' '	To signify the data from both CPUS are not the same. A star (i.e. '*') is displayed when they are not equal, otherwise none.
hhhhhhhh	00000000-FFFFFFFF	Signifees the value of a register in eight hex-decimal digits.
hhhh	0000-FFFF	Signifies the value of a register in four hex-decimal digits.
hh	00-FF	Signifies the value of a register in two hex-decimal digits.
h	0-F	Signifies a hex-decimal digit value.
Owner:#XXXX,#XXXX	0000-FFFF	The Process ID that owns the data which mismatch-ed AHR points to.
Module m_txt	Text	The name of the Process that owns the data which mismatched AHR points to.
MTC Info:		Contains maintenance information which indi-cates the reason for the decision that the mismatch handler made.
Traceback:		Provides a trace of the procedures executed be-fore the procedure exe-

		cuting at the time that mismatch occurred.
has x	int	Signifies the number of modules in a memory card.
memsiz	TEXT	Size of the memory module.
mem_range_txt	TEXT	Shows the physical address range of the memory module or indicates it is a spare memory.
(s)	(f) or (i) (.)	States the status of the memory modules to be faulty, in service trouble or ok.

System action:

None.

User action:

None.

Response BRISC (M88K version)

```
    Mismatch number seqno date  time
    Activity: Start: CPU X, Final: CPU X
    Mismatch found:   mismatch_text
    System recovery action recovery_text
    Status of recovery: rc_status_text


                                                          Not
                  CPU 0                        CPU 1      Equal
               Data v_txt valid             Data v_txt valid


Module Entry:  e_text                     e_text            C
   AHR Value:  hhhhhhhh                   hhhhhhhh          C
    AHR Data:  hhhhhhhh                   hhhhhhhh          C
TIC Code AHR:  hhhhhhhh                   hhhhhhhh          C
TIC Data AHR:  hhhhhhhh     (logical)     hhhhhhhh          C
TIC Data AHR:  hhhhhhhh     (physical)    hhhhhhhh          C
         MCR:  hhhhhhhh                   hhhhhhhh          C
Owner #XXXX,#XXXX: Module m_txt           Owner #XXXX,#XXXX: Module m_txt


PROCESSOR REGISTERS:   Not                      Not                      Not
        CPU 0/CPU 1  Equal      CPU 0/CPU 1  Equal      CPU 0/CPU 1   Equal
  R1: hhhhhhhh/hhhhhhhh C   R2: hhhhhhhh/hhhhhhhh C   R3: hhhhhhhh/hhhhhhhh C
  R4: hhhhhhhh/hhhhhhhh C   R5: hhhhhhhh/hhhhhhhh C   R6: hhhhhhhh/hhhhhhhh C
```

```
   R7: hhhhhhhh/hhhhhhhh C   R8: hhhhhhhh/hhhhhhhh C   R9: hhhhhhhh/hhhhhhhh C
R10: hhhhhhhh/hhhhhhhh C   R11: hhhhhhhh/hhhhhhhh C   R12: hhhhhhhh/hhhhhhhh C
   R13: hhhhhhhh/hhhhhhhh C   R14: hhhhhhhh/hhhhhhhh C   R15: hhhhhhhh/hhhhhhhh C
   R16: hhhhhhhh/hhhhhhhh C   R17: hhhhhhhh/hhhhhhhh C   R18: hhhhhhhh/hhhhhhhh C
   R19: hhhhhhhh/hhhhhhhh C   R20: hhhhhhhh/hhhhhhhh C   R21: hhhhhhhh/hhhhhhhh C
   R22: hhhhhhhh/hhhhhhhh C   R23: hhhhhhhh/hhhhhhhh C   R24: hhhhhhhh/hhhhhhhh C
   R25: hhhhhhhh/hhhhhhhh C   R26: hhhhhhhh/hhhhhhhh C   R27: hhhhhhhh/hhhhhhhh C
   R28: hhhhhhhh/hhhhhhhh C   R29: hhhhhhhh/hhhhhhhh C   R30: hhhhhhhh/hhhhhhhh C
   R31: hhhhhhhh/hhhhhhhh C  EPSR: hhhhhhhh/hhhhhhhh C
  SXIP: hhhhhhhh/hhhhhhhh C  SNIP: hhhhhhhh/hhhhhhhh C  SFIP: hhhhhhhh/hhhhhhhh C
   SR2: hhhhhhhh/hhhhhhhh C   SR3: hhhhhhhh/hhhhhhhh C


      CODE CMMU 0 REGs   Not     DATA CMMU 0 REGs   Not     DATA CMMU 1 REGs   Not
           CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal
   SAR: hhhhhhhh/hhhhhhhh C   SAR: hhhhhhhh/hhhhhhhh C   SAR: hhhhhhhh/hhhhhhhh C
  PFSR: hhhhhhhh/hhhhhhhh C  PFSR: hhhhhhhh/hhhhhhhh C  PFSR: hhhhhhhh/hhhhhhhh C
 PFAR: hhhhhhhh/hhhhhhhh C  PFAR: hhhhhhhh/hhhhhhhh C  PFAR: hhhhhhhh/hhhhhhhh CC
   SCR:        h/h        C   SCR:        h/h        C   SCR:        h/h        C
                             BWP7: hhhhhhhh/hhhhhhhh C  BWP7: hhhhhhhh/hhhhhhhh C


  TRACE/INTERRUPT CONTROLLER (TIC) REGISTERS:


  ComeFroms:        CPU 0                                CPU 1
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh

   SSR:     hhhh/hhhh     C   SSR:     hhhh/hhhh     C   SSR:     hhhh/hhhh


Notes
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
```

```
                                Not                                    Not
              CPU 0/CPU 1      Equal                 CPU 0/CPU 1      Equal
      INT: hhhhhhhh/hhhhhhhh     C           INTC: hhhhhhhh/hhhhhhhh     C
     SINT: hhhhhhhh/hhhhhhhh     C           GMSK: hhhhhhhh/hhhhhhhh     C
      FIR: hhhhhhhh/hhhhhhhh     C           CONF:         h/h          C
 Mate_FIR: hhhhhhhh/hhhhhhhh     C         SINTMSK:         h/h          C
MateFIR_OK:      h/h            C       MCR_STAT:         h/h

  PCCAB REGISTERS:              Not                                    Not
              CPU 0/CPU 1      Equal                 CPU 0/CPU 1     Equal
    STAT: hhhhhhhh/hhhhhhhh     C           CTRL: hhhhhhhh/hhhhhhhh     C
  ECCADDR: hhhhhhhh/hhhhhhhh    C

  MEI REGISTERS:                Not                                    Not
              CPU 0/CPU 1      Equal                 CPU 0/CPU 1      Equal
    MBPA: hhhhhhhh/hhhhhhhh     C           NBMA: hhhhhhhh/hhhhhhhh     C
    EPEA: hhhhhhhh/hhhhhhhh     C            ERA: hhhhhhhh/hhhhhhhh     C
    IAEA: hhhhhhhh/hhhhhhhh     C           CONF: hhhhhhhh/hhhhhhhh     C
    ERSC: hhhhhhhh/hhhhhhhh     C           CBEG: hhhhhhhh/hhhhhhhh     C
    CEND: hhhhhhhh/hhhhhhhh     C           CPSC: hhhhhhhh/hhhhhhhh     C
    MBSC:     hhhh/hhhh         C           IASC:     hhhh/hhhh         C
    NEM_STAT:   hh/hh           C         GENFLT:       hh/hh           C
    UPD_MODE:   hh/hh           C     LMS_WP_CTR:       hh/hh           C
    EPARI_SC:   hh/hh           C

  DMC REGISTERS:                Not                                    Not
              CPU 0/CPU 1      Equal                 CPU 0/CPU 1      Equal
    OS_TIMER:  hhhh/hhhh        C             IRM:    hhhh/hhhh         C


                              AI0630MM.AA08                      Page 9
Æ
    MM_CTRL:   hhhh/hhhh        C  RESET_STATUS:     hhhh/hhhh         C
    PROC_STAT: hhhh/hhhh        C    CLK_STATUS:     hhhh/hhhh         C


  STACK DUMP:     CPU 0        CPU 1           MTC INFO:   CPU 0        CPU 1
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh


  TRACEBACK:       CPU 0                          CPU 1
   hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
   hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh


  MEMORY CONFIGURATION :
              CPU 0                                 CPU 1
  Card 0 has x memsiz memory modules.    Card 0 has x memsiz memory modules.
  Address ranges are:                    Address ranges are:
    Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (s)
    Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (s)
    Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (s)
  Card 1 has x memsiz memory modules.    Card 1 has x memsiz memory modules.
  Address ranges are:                    Address ranges are:
```

```
   Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (f)
   Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (f)
   Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (f)

               o                                      o
               o                                      o
               o                                      o

  Card n has x memsiz memory modules.    Card n has x memsiz memory modules.
  Address ranges are:                    Address ranges are:
    Mod 0: mem_range_txt          (s)      Mod 0: mem_range_txt          (s)
    Mod 1: mem_range_txt          (s)      Mod 1: mem_range_txt          (s)
    Mod 2: mem_range_txt          (s)      Mod 2: mem_range_txt          (s)
```

Explanation

This is the system response for the following commands

```
MMINFO LAST
  -- or --
MMINFO RESTART
  -- or --
MMINFO seqno
```

when they are invoked on a BRISC based sync-match nodes.

FIELD	VALUE	DESCRIPTION
Mismatch seqno	posint	Specifies the Mismatch Log sequence number.
Start: CPU X	0 or 1	The active CPU before mismatch.
Final: CPU X	0 or 1	The active CPU after mismatch.
mismatch_text	Text	Identifies what fault has been isolated by mismatch handler.
recovery_text	Text	Identifies which recovery procedure need to take place.
rc_status_text	Text	Identifies the status of the recovery action.
Data v_txt valid	Text	Either ‘Data is valid’ or ‘Data IS NOT valid’ character string.
Module Entry e_text	Text	Identifies Entry module

		name.
Not Equal 'C'	'*'/' '	To signify the data from both CPUS are not the same. A star (i.e. '*') is displayed when they are not equal, otherwise none.
hhhhhhhh	00000000-FFFFFFFF	Signifees the value of a register in eight hex-decimal digits.
hhhh	0000-FFFF	Signifies the value of a register in four hex-decimal digits.
hh	00-FF	Signifies the value of a register in two hex-decimal digits.
h	0-F	Signifies a hex-decimal digit value.
Owner:#XXXX,#XXXX	0000-FFFF	The Process ID that owns the data which mismatch-ed AHR points to.
Module m_txt	Text	The name of the Process that owns the data which mismatched AHR points to.
modnm:		Identifies the module name and issue.
proctxt		Identifies the procedure which was executing at the time the trap was detected.
STACK DUMP:		Provide a dump of the stack in pairs.
MTC Info:		Contains maintenance information which indi-cates the reason for the decision that the mismatch handler made.
Traceback:		Provides a trace of the procedures executed be-fore the procedure exe-cuting at the time that mismatch occurred.
has x	int	Signifies the number of modules in a memory card.

memsiz	TEXT	Size of the memory module.
mem_range_txt	TEXT	Shows the physical address range of the memory modules or indicates it is a spare memory.
(s)	(f) or (i) (.)	States the status of the memory modules to be faulty, in service trouble or ok.

System Action:

None.

User Action:

None.

Response Snode (M68K version)

```
    Mismatch number seqno date  time
    Activity: Start: CPU X, Final: CPU X
    Mismatch found:   mismatch_text
    System recovery action recovery_text
    Status of recovery: rc_status_text
                                                                  Not
                  CPU 0                          CPU 1          Equal
               Data v_txt valid               Data v_txt valid


Module Entry:  e_text                        e_text                C
   AHR Value:  hhhhhhhh                      hhhhhhhh              C
    AHR Data:  hhhhhhhh                      hhhhhhhh              C
     MAU AHR:  hhhhhhhh                      hhhhhhhh              C
         MCR:  hhhhhhhh                      hhhhhhhh              C
Owner #XXXX,#XXXX: Module m_txt              Owner #XXXX,#XXXX: Module m_txt

PROCESSOR REGISTERS:   Not                          Not                          Not
        CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal
  A1: hhhhhhhh/hhhhhhhh C     A2: hhhhhhhh/hhhhhhhh C     A3: hhhhhhhh/hhhhhhhh C
  A4: hhhhhhhh/hhhhhhhh C     A5: hhhhhhhh/hhhhhhhh C     A6: hhhhhhhh/hhhhhhhh C
  D1: hhhhhhhh/hhhhhhhh C     D2: hhhhhhhh/hhhhhhhh C     D3: hhhhhhhh/hhhhhhhh C
  D4: hhhhhhhh/hhhhhhhh C     D5: hhhhhhhh/hhhhhhhh C     D6: hhhhhhhh/hhhhhhhh C
  D7: hhhhhhhh/hhhhhhhh C
  PC: hhhhhhhh/hhhhhhhh C    USP: hhhhhhhh/hhhhhhhh C    ISP: hhhhhhhh/hhhhhhhh C
 MSP: hhhhhhhh/hhhhhhhh C     SR:     hhhh/hhhh     C ICACHE:    hhhh/hhhh     C

VIRTUAL REGISTERS:           Not                                    Not
            CPU 0/CPU 1     Equal                 CPU 0/CPU 1     Equal
    FIR:     hhhh/hhhh        C       MM_Ctrl:     hhhh/hhhh        C
OS Timer:    hhhh/hhhh        C      MAU_Ctrl:     hhhh/hhhh        C
MAU_err:     hhhh/hhhh        C      Clk_stat:     hhhh/hhhh        C
```

```
      FC:     hhhh/hhhh        C           IRM:     hhhh/hhhh        C
 ProcStat:    hhhh/hhhh        C      SRam_Err:     hhhh/hhhh        C
  PerInt:     hhhh/hhhh        C      Acc Prot:     hhhh/hhhh        C
Mate_FIR:     hhhh/hhhh        C      MateFIR_OK:       h/h          C
MCR_STAT:        h/h           C
```

Fault Indication Register:	CPU0	CPU1	Not Equal
FIR Interrupt Pending ------	tf_txt	tf_txt	C
Memory Error ------	tf_txt	tf_txt	C
Memory Access Error ------	tf_txt	tf_txt	C
Parity Error ------	tf_txt	tf_txt	C
Peripheral Interrupt Mismatch ------	tf_txt	tf_txt	C
Jammed Inactive ------	tf_txt	tf_txt	C
Sanity Interrupt Occurred ------	tf_txt	tf_txt	C
Activity Timeout Occurred ------	tf_txt	tf_txt	C
Clock (Own or Mate) Failed ------	tf_txt	tf_txt	C
I/O Error on port Card ------	tf_txt	tf_txt	C

Mismatch Control Register:	CPU0	CPU1	Not Equal
AHR Latched ------	tf_txt	tf_txt	C
Mismatches Inhibited ------	tf_txt	tf_txt	C
CPUs In Sync ------	tf_txt	tf_txt	C
Write Cycle ------	tf_txt	tf_txt	C
Function Code ------	tf_txt	tf_txt	C
Mismatch on Data ------	tf_txt	tf_txt	C
Mismatch on Address ------	tf_txt	tf_txt	C
Mate Saw Mismatch ------	tf_txt	tf_txt	C
I Saw Mismatch ------	tf_txt	tf_txt	C

Memory Access Unit Control Reg:	CPU0	CPU1	Not Equal
Cache Longword Write Enable ------	tf_txt	tf_txt	C
Parity Sense ------	tf_txt	tf_txt	C
Handshake Override ------	tf_txt	tf_txt	C
PMMU Equipped ------	tf_txt	tf_txt	C
Parity Enabled ------	tf_txt	tf_txt	C
Access Protection Enable ------	tf_txt	tf_txt	C
Cache Lock ------	tf_txt	tf_txt	C
Cache Enabled ------	tf_txt	tf_txt	C

Memory Access Unit Error Reg:	CPU0	CPU1	Not Equal
Parity of Address Bits ------	tf_txt	tf_txt	C
Combined Parity In data Cache ------	tf_txt	tf_txt	C
Parity Error Detected ------	tf_txt	tf_txt	C
Location of the Parity Error ------	tf_txt	tf_txt	C
Error was During a Read Cycle ------	tf_txt	tf_txt	C
Parity of Bus Byte Enable ------	tf_txt	tf_txt	C
Internal Parity For address Read and Byte Enable ------	tf_txt	tf_txt	C
Parity Received from Slave ------	tf_txt	tf_txt	C
Error was on a Read Cycle ------	tf_txt	tf_txt	C
Access a Nonexistant Device ------	tf_txt	tf_txt	C
Local data xfer acknowledge ------	tf_txt	tf_txt	C
Error Access memory beyond 256 Meg ------	tf_txt	tf_txt	C
Error Access Supervisor Mode ------	tf_txt	tf_txt	C
Mem from User Mode ------	tf_txt	tf_txt	C
Error Read or Write PS as DS ------	tf_txt	tf_txt	C
Error Execute DS as PS ------	tf_txt	tf_txt	C
Error write to Protected Mem ------	tf_txt	tf_txt	C

Not

```
  Clock Status Register:                          CPU0        CPU1  Equal
            Reference Clock Failed ------       tf_txt      tf_txt   C
               Clock Source is Own ------       tf_txt      tf_txt   C
                 Mate Clock Failed ------       tf_txt      tf_txt   C
                  Own Clock Failed ------       tf_txt      tf_txt   C

                                                                  Not
  Function Codes Register:                        CPU0        CPU1  Equal
             Bus Cycle at Mismatch ------      bus_txt     bus_txt  C


                                                                  Not
  Interrupt Request Mask Register:                CPU0        CPU1  Equal
    FIR Interrupt Request Mask Bit ------       tf_txt      tf_txt   C
       Timer Int. Request Mask Bit ------       tf_txt      tf_txt   C
       USART Int. Request Mask Bit ------       tf_txt      tf_txt   C
    I/O Interrupt Request Mask Bit ------       tf_txt      tf_txt   C

                                                                  Not
  Processor Status Register:                      CPU0        CPU1  Equal
        Testing Interrupt Mismatch ------ testing_txt  testing_txt   C
                        Update Mode ------ update_txt    update_txt   C
                            OffLine ------ offline_txt  offline_txt   C
                    Jammed Inactive ------ jammed_txt   jammed_txt    C
                         Clock Used ------   clk_txt     clk_txt      C
                             CPU ID ------   cpu_txt     cpu_txt      C
                           Activity ------   act_txt     act_txt      C

                                                                  Not
  Static Ram Error Register:                      CPU0        CPU1  Equal
                  SRAM Update Mode ------       tf_txt      tf_txt   C
    Inverted SRAM Parity Generated ------       tf_txt      tf_txt   C
            Parity Error in Byte 3 ------       tf_txt      tf_txt   C
            Parity Error in Byte 2 ------       tf_txt      tf_txt   C
            Parity Error in Byte 1 ------       tf_txt      tf_txt   C
            Parity Error in Byte 0 ------       tf_txt      tf_txt   C

                                                                  Not
  Peripheral Interrupt Mask Reg:                  CPU0        CPU1  Equal
      I/O Error Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 7 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 6 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 5 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 4 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 3 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 2 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 1 Per Interrupt Mask ------       tf_txt      tf_txt   C
        Level 0 Per Interrupt Mask ------       tf_txt      tf_txt   C

                                                                  Not
  Access Protection Mask Reg:                     CPU0        CPU1  Equal
                   Supervisor Mode ------       tf_txt      tf_txt   C
                 Program Read Only ------       tf_txt      tf_txt   C
                    Data Read Only ------       tf_txt      tf_txt   C
                     Write Protect ------       tf_txt      tf_txt   C

                                                                  Not
Mate Fault Indication Register:                   CPU0        CPU1   Equal
           I/O Error by Peripheral ------       tf_txt     tf_txt    C
                       Clock Failed ------      tf_txt     tf_txt    C
                  Activity Timeout ------       tf_txt     tf_txt    C
                  Sanity Interrupt ------       tf_txt     tf_txt    C
                   Jammed Inactive ------       tf_txt     tf_txt    C
     Peripheral Interrupt Mismatch ------       tf_txt     tf_txt    C
```

```
    Bus Parity Or Data Cache Error ------       tf_txt     tf_txt    C
               Memory Access Error ------       tf_txt     tf_txt    C
    Mem ECC or Uncorrectable Error ------       tf_txt     tf_txt    C
                 Interrupt Pending ------       tf_txt     tf_txt    C
                   PCCAB ECC Error ------       tf_txt     tf_txt    C
                   ECore ECC Error ------       tf_txt     tf_txt    C
                         ECore RTO ------       tf_txt     tf_txt    C
                       MBus Parity ------       tf_txt     tf_txt    C

                                                                  Not
Mate Fault Indication Register OK:                 CPU0       CPU1  Equal
                     Yes/No/Maybe  ------         tf_txt     tf_txt    C

                                                                  Not
Mate Communications Register Status:               CPU0       CPU1  Equal
                          0/16/32   ------         tf_txt     tf_txt    C


  MTC INFO:       CPU 0       CPU 1
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh

                                                                  Not
   MTC INFO Register 1:                            CPU0        CPU1  Equal
                 mtc_info_text
                                                                  Not
   MTC INFO Register 2:                            CPU0        CPU1  Equal
                 mtc_info_text


                                                                  Not
   MTC INFO Register 3:                            CPU0        CPU1  Equal
                 mtc_info_text

                                                                  Not
   MTC INFO Register 4:                            CPU0        CPU1  Equal
                 mtc_info_text


                                                                  Not
   MTC INFO Register 5:                            CPU0        CPU1  Equal
                 mtc_info_text


                                                                  Not
   MTC INFO Register 6:                            CPU0        CPU1  Equal
                 mtc_info_text


    USER                                          INTERRUPT
  STACK DUMP:     CPU 0        CPU 1          STACK DUMP:   CPU 0        CPU 1
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh
                 hhhhhhhh    hhhhhhhh                     hhhhhhhh    hhhhhhhh

  TRACEBACK:       CPU 0                          CPU 1
   hhhhhhhh=modnm: proctxt+#hhhh         hhhhhhhh=modnm: proctxt+#hhhh
```

```
 hhhhhhhh=modnm: proctxt+#hhhh          hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh          hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh          hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh          hhhhhhhh=modnm: proctxt+#hhhh

MEMORY CONFIGURATION :
             CPU 0                                  CPU 1
Card 0 has x memsiz memory modules.    Card 0 has x memsiz memory modules.
Address ranges are:                    Address ranges are:
  Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (s)
  Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (s)
  Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (s)
Card 1 has x memsiz memory modules.    Card 1 has x memsiz memory modules.
Address ranges are:                    Address ranges are:
  Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (f)
  Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (f)
  Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (f)
             o                                      o
             o                                      o
             o                                      o


Card n has x memsiz memory modules.    Card n has x memsiz memory modules.
Address ranges are:                    Address ranges are:
  Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (f)
  Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (f)
  Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (f)
```

Explanation

This is the longest system response with all the possible registers decoded for a mismatch information when the following commands is invoked

```
MMINFO LAST DECODE
  -- or --
MMINFO RESTART DECODE
  -- or --
MMINFO seqno DECODE
```

within a 68K sync-match node equipped with 9X13 processor pack.

Since the DECODE form of a mismatch information is an enhancement of the non-DECODE form, only new field descriptions are depicted as follows.

FIELD	VALUE	DESCRIPTION
bus_txt	TEXT	Signifies the bus cycle at mismatch.
testing_txt	TEXT	Testing mismatch interrupt
update_txt	TEXT	Update Mode testing.

```
offline_txt                TEXT        Is system offline.

jammed_txt                 TEXT        Inactive CPU is jammed.

clk_txt              'OWN'/'MATE'      Which Clock is used.

cpu_txt                    TEXT        Which CPU am I.

act_txt                    TEXT        Is this CPU active.

mtc_info_text              TEXT        Decode MTC INFO register.
```

System Action

None.

User Action

None.

Response BRISC (M88K version

```
    Mismatch number seqno date  time
    Activity: Start: CPU X, Final: CPU X
    Mismatch found:   mismatch_text
    System recovery action recovery_text
    Status of recovery: rc_status_text


                                                                 Not
                  CPU 0                          CPU 1          Equal
               Data v_txt valid                  Data v_txt valid

Module Entry:  e_text                        e_text               C
   AHR Value:  hhhhhhhh                      hhhhhhhh             C
    AHR Data:  hhhhhhhh                      hhhhhhhh             C
TIC Code AHR:  hhhhhhhh                      hhhhhhhh             C
TIC Data AHR:  hhhhhhhh     (logical)        hhhhhhhh             C
TIC Data AHR:  hhhhhhhh     (physical)       hhhhhhhh             C
         MCR:  hhhhhhhh                      hhhhhhhh             C
Owner #XXXX,#XXXX: Module m_txt             Owner #XXXX,#XXXX: Module m_txt

PROCESSOR REGISTERS:   Not                          Not                          Not
        CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1   Equal
  R1: hhhhhhhh/hhhhhhhh C     R2: hhhhhhhh/hhhhhhhh C     R3: hhhhhhhh/hhhhhhhh C
  R4: hhhhhhhh/hhhhhhhh C     R5: hhhhhhhh/hhhhhhhh C     R6: hhhhhhhh/hhhhhhhh C
  R7: hhhhhhhh/hhhhhhhh C     R8: hhhhhhhh/hhhhhhhh C     R9: hhhhhhhh/hhhhhhhh C
 R10: hhhhhhhh/hhhhhhhh C    R11: hhhhhhhh/hhhhhhhh C    R12: hhhhhhhh/hhhhhhhh C
 R13: hhhhhhhh/hhhhhhhh C    R14: hhhhhhhh/hhhhhhhh C    R15: hhhhhhhh/hhhhhhhh C
 R16: hhhhhhhh/hhhhhhhh C    R17: hhhhhhhh/hhhhhhhh C    R18: hhhhhhhh/hhhhhhhh C
 R19: hhhhhhhh/hhhhhhhh C    R20: hhhhhhhh/hhhhhhhh C    R21: hhhhhhhh/hhhhhhhh C
 R22: hhhhhhhh/hhhhhhhh C    R23: hhhhhhhh/hhhhhhhh C    R24: hhhhhhhh/hhhhhhhh C
 R25: hhhhhhhh/hhhhhhhh C    R26: hhhhhhhh/hhhhhhhh C    R27: hhhhhhhh/hhhhhhhh C
```

```
 R28: hhhhhhhh/hhhhhhhh C   R29: hhhhhhhh/hhhhhhhh C   R30: hhhhhhhh/hhhhhhhh C
 R31: hhhhhhhh/hhhhhhhh C  EPSR: hhhhhhhh/hhhhhhhh C
SXIP: hhhhhhhh/hhhhhhhh C  SNIP: hhhhhhhh/hhhhhhhh C  SFIP: hhhhhhhh/hhhhhhhh C
 SR2: hhhhhhhh/hhhhhhhh C   SR3: hhhhhhhh/hhhhhhhh C


    CODE CMMU 0 REGs   Not     DATA CMMU 0 REGs   Not     DATA CMMU 1 REGs   Not
         CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal
 SAR: hhhhhhhh/hhhhhhhh C   SAR: hhhhhhhh/hhhhhhhh C   SAR: hhhhhhhh/hhhhhhhh C
PFSR: hhhhhhhh/hhhhhhhh C  PFSR: hhhhhhhh/hhhhhhhh C  PFSR: hhhhhhhh/hhhhhhhh C
PFAR: hhhhhhhh/hhhhhhhh C  PFAR: hhhhhhhh/hhhhhhhh C  PFAR: hhhhhhhh/hhhhhhhh C
 SSR:     hhhh/hhhh     C   SSR:     hhhh/hhhh     C   SSR:     hhhh/hhhh     C
 SCR:        h/h        C   SCR:        h/h        C   SCR:        h/h        C
                           BWP7: hhhhhhhh/hhhhhhhh C  BWP7: hhhhhhhh/hhhhhhhh C
                                                                        Not
Code CMMU 0 PFSR:                                CPU 0        CPU 1    Equal
                       Fault Code ------   fc_txt       fc_txt      C


                                                                        Not
Data CMMU 0 PFSR:                                CPU 0        CPU 1    Equal
                       Fault Code ------   fc_txt       fc_txt      C


                                                                        Not
Data CMMU 1 PFSR:                                CPU 0        CPU 1    Equal
                       Fault Code ------   fc_txt       fc_txt      C


                                                                        Not
Code CMMU 0 SSR:                                  CPU 0      CPU 1 Equal
                  Copy Back Error ------       tf_txt     tf_txt   C
                        Bus Error ------       tf_txt     tf_txt   C
                     Writethrough ------       tf_txt     tf_txt   C
               Supervisor Privilege ------     tf_txt     tf_txt   C
                             Globe ------       tf_txt     tf_txt   C
                     Cache Inhibit ------       tf_txt     tf_txt   C
                          Modified ------       tf_txt     tf_txt   C
                              Used ------       tf_txt     tf_txt   C
                 Write Protection ------       tf_txt     tf_txt   C
                          BATC Hit ------       tf_txt     tf_txt   C
                             Valid ------       tf_txt     tf_txt   C


                                                                        Not
Data CMMU 0 SSR:                                  CPU 0      CPU 1 Equal
                  Copy Back Error ------       tf_txt     tf_txt   C
                        Bus Error ------       tf_txt     tf_txt   C
                     Writethrough ------       tf_txt     tf_txt   C
               Supervisor Privilege ------     tf_txt     tf_txt   C
                             Globe ------       tf_txt     tf_txt   C
                     Cache Inhibit ------       tf_txt     tf_txt   C
                          Modified ------       tf_txt     tf_txt   C
                              Used ------       tf_txt     tf_txt   C
                 Write Protection ------       tf_txt     tf_txt   C
                          BATC Hit ------       tf_txt     tf_txt   C
                             Valid ------       tf_txt     tf_txt   C


                                                                        Not
Data CMMU 1 SSR:                                  CPU 0      CPU 1 Equal
                  Copy Back Error ------       tf_txt     tf_txt   C
                        Bus Error ------       tf_txt     tf_txt   C
                     Writethrough ------       tf_txt     tf_txt   C
               Supervisor Privilege ------     tf_txt     tf_txt   C
```

```
                          Globe ------       tf_txt     tf_txt   C
                  Cache Inhibit ------       tf_txt     tf_txt   C
                       Modified ------       tf_txt     tf_txt   C
                           Used ------       tf_txt     tf_txt   C
                Write Protection ------       tf_txt     tf_txt   C
                        BATC Hit ------       tf_txt     tf_txt   C
                           Valid ------       tf_txt     tf_txt   C

                                                                  Not
Code CMMU 0 SCR:        CPU 0              CPU 1                 Equal
               cmmu_scr_text            cmmu_scr_text            C


                                                                  Not
Data CMMU 0 SCR:        CPU 0              CPU 1                 Equal
               cmmu_scr_text            cmmu_scr_text            C


                                                                  Not
Data CMMU 1 SCR:        CPU 0              CPU 1                 Equal
               cmmu_scr_text            cmmu_scr_text            C

                                                                  Not
Data CMMU 0 BWP7:       CPU 0              CPU 1      CPU 0      Equal
          Logical Block Address ------        hhhh       hhhh     C
         Physical Block Address ------        hhhh       hhhh     C
                  Address Space ------  Sup_user_txt Sup_user_txt C
           BATC Writethrough ------       tf_txt     tf_txt   C
                  BATC Globe ------       tf_txt     tf_txt   C
           BATC Cache Inhibit ------       tf_txt     tf_txt   C
           BATC Write Protect ------       tf_txt     tf_txt   C
                  BATC Valid ------       tf_txt     tf_txt   C

                                                                  Not
Data CMMU 1 BWP7:       CPU 0              CPU 1      CPU 0      Equal
          Logical Block Address ------        hhhh       hhhh     C
         Physical Block Address ------        hhhh       hhhh     C
                  Address Space ------  Sup_user_txt Sup_user_txt C
           BATC Writethrough ------       tf_txt     tf_txt   C
                  BATC Globe ------       tf_txt     tf_txt   C
           BATC Cache Inhibit ------       tf_txt     tf_txt   C
           BATC Write Protect ------       tf_txt     tf_txt   C
                  BATC Valid ------       tf_txt     tf_txt   C

TRACE/INTERRUPT CONTROLLER (TIC) REGISTERS:


ComeFroms:        CPU 0                                CPU 1
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
F: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
D: hhhhhhhh=modnm: proctxt+#hhhh       hhhhhhhh=modnm: proctxt+#hhhh
```

```
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  F: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
  D: hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
```

	CPU 0/CPU 1	Not Equal		CPU 0/CPU 1	Not Equal
INT:	hhhhhhhh/hhhhhhhh	C	INTC:	hhhhhhhh/hhhhhhhh	C
SINT:	hhhhhhhh/hhhhhhhh	C	GMSK:	hhhhhhhh/hhhhhhhh	C
FIR:	hhhhhhhh/hhhhhhhh	C	CONF:	h/h	C
Mate_FIR:	hhhhhhhh/hhhhhhhh	C	SINTMSK:	h/h	C
MateFIR_OK:	h/h	C	MCR_STAT:	h/h	C

Interrupt Register:		CPU0	CPU1	Not Equal
Bit 19	Cannot be masked ------	tf_txt	tf_txt	C
Bit 18	Force Clock Switch ------	tf_txt	tf_txt	C
Bit 17	RTIF Level 8 ------	tf_txt	tf_txt	C
Bit 16	Trace Level 7 ------	tf_txt	tf_txt	C
Bit 15	Sanity Level 6 ------	tf_txt	tf_txt	C
Bit 14	Mismatch Level 5 ------	tf_txt	tf_txt	C
Bit 13	Fault Level 4 ------	tf_txt	tf_txt	C
Bit 12	Lock Overrun Level 3 ------	tf_txt	tf_txt	C
Bit 11	Deferred Clock Level 3 ------	tf_txt	tf_txt	C
Bit 10	SOS Timer Level 3 ------	tf_txt	tf_txt	C
Bit 9	Copy Interrupt Level 3 ------	tf_txt	tf_txt	C
Bit 8	P7 Level 2 ------	tf_txt	tf_txt	C
Bit 7	P6 Level 2 ------	tf_txt	tf_txt	C
Bit 6	P5 Level 2 ------	tf_txt	tf_txt	C
Bit 5	P4 Level 2 ------	tf_txt	tf_txt	C
Bit 4	P3 Level 2 ------	tf_txt	tf_txt	C
Bit 3	P2 Level 2 ------	tf_txt	tf_txt	C
Bit 2	P1 Level 2 ------	tf_txt	tf_txt	C
Bit 1	P0 Level 2 ------	tf_txt	tf_txt	C
Bit 0	USART Level 0 ------	tf_txt	tf_txt	C

Interrupt Cause Register:		CPU0	CPU1	Not Equal
Bit 19	Cannot be masked ------	tf_txt	tf_txt	C
Bit 18	Force Clock Switch ------	tf_txt	tf_txt	C
Bit 17	RTIF Level 8 ------	tf_txt	tf_txt	C
Bit 16	Trace Level 7 ------	tf_txt	tf_txt	C
Bit 15	Sanity Level 6 ------	tf_txt	tf_txt	C
Bit 14	Mismatch Level 5 ------	tf_txt	tf_txt	C
Bit 13	Fault Level 4 ------	tf_txt	tf_txt	C
Bit 12	Lock Overrun Level 3 ------	tf_txt	tf_txt	C
Bit 11	Deferred Clock Level 3 ------	tf_txt	tf_txt	C
Bit 10	SOS Timer Level 3 ------	tf_txt	tf_txt	C
Bit 9	Copy Interrupt Level 3 ------	tf_txt	tf_txt	C
Bit 8	P7 Level 2 ------	tf_txt	tf_txt	C

```
    Bit  7             P6 Level 2 ------      tf_txt      tf_txt    C
    Bit  6             P5 Level 2 ------      tf_txt      tf_txt    C
    Bit  5             P4 Level 2 ------      tf_txt      tf_txt    C
    Bit  4             P3 Level 2 ------      tf_txt      tf_txt    C
    Bit  3             P2 Level 2 ------      tf_txt      tf_txt    C
    Bit  2             P1 Level 2 ------      tf_txt      tf_txt    C
    Bit  1             P0 Level 2 ------      tf_txt      tf_txt    C
    Bit  0          USART Level 0 ------      tf_txt      tf_txt    C


                                                                  Not
  Secondary Interrupt Register:                  CPU0       CPU1   Equal
     Bit 18          Clock Fail One ------      tf_txt      tf_txt    C
     Bit 17        Clock Fail Zero ------      tf_txt      tf_txt    C
     Bit 16               PLL Lock ------      tf_txt      tf_txt    C
     Bit 15        Trace Interrupt ------      tf_txt      tf_txt    C
     Bit 13         P-Bus Mismatch ------      tf_txt      tf_txt    C
     Bit 12   E-Core Addr Mismatch ------      tf_txt      tf_txt    C
     Bit 11   E-Core Data Mismatch ------      tf_txt      tf_txt    C
     Bit 10        E-Core Bus Slip ------      tf_txt      tf_txt    C
     Bit  9          Mate Mismatch ------      tf_txt      tf_txt    C
     Bit  8             Port Error ------      tf_txt      tf_txt    C
     Bit  7     M-Bus Parity Error ------      tf_txt      tf_txt    C
     Bit  6     E-Bus Parity Error ------      tf_txt      tf_txt    C
     Bit  5              E-Bus RTO ------      tf_txt      tf_txt    C
     Bit  4 Incompatible Access Error ---      tf_txt      tf_txt    C
     Bit  3           Memory Error ------      tf_txt      tf_txt    C
     Bit  2             ASIC Error ------      tf_txt      tf_txt    C
     Bit  1 Async Interrupt Mismatch ----      tf_txt      tf_txt    C
     Bit  0  Invalid DMC Interrupt ------      tf_txt      tf_txt    C


                                                                   Not
  General Interrupt Mask Register:               CPU0       CPU1   Equal
     Bit 17         RTIF Interrupt ------      tf_txt      tf_txt    C
     Bit 16                Debug ------      tf_txt      tf_txt    C
     Bit 15               Sanity ------      tf_txt      tf_txt    C
     Bit 14             Mismatch ------      tf_txt      tf_txt    C
     Bit 13                Fault ------      tf_txt      tf_txt    C
     Bit 12          Lock Overrun ------      tf_txt      tf_txt    C
     Bit 11         Deferred Clock ------      tf_txt      tf_txt    C
     Bit 10             SOS Timer ------      tf_txt      tf_txt    C
     Bit  9         Copy Interrupt ------      tf_txt      tf_txt    C
     Bit  8             Port Error ------      tf_txt      tf_txt    C
     Bit  7                     P7 ------      tf_txt      tf_txt    C
     Bit  6                     P6 ------      tf_txt      tf_txt    C
     Bit  5                     P5 ------      tf_txt      tf_txt    C
     Bit  4                     P4 ------      tf_txt      tf_txt    C
     Bit  3                     P3 ------      tf_txt      tf_txt    C
     Bit  2                     P2 ------      tf_txt      tf_txt    C
     Bit  1                     P1 ------      tf_txt      tf_txt    C
     Bit  0                  USART ------      tf_txt      tf_txt    C


                                                                   Not
  Fault Indication Register:                     CPU0       CPU1   Equal
           I/O Error by Peripheral ------      tf_txt      tf_txt    C
                       Clock Failed ------      tf_txt      tf_txt    C
                  Activity Timeout ------      tf_txt      tf_txt    C
                  Sanity Interrupt ------      tf_txt      tf_txt    C
                   Jammed Inactive ------      tf_txt      tf_txt    C
     Peripheral Interrupt Mismatch ------      tf_txt      tf_txt    C
    Bus Parity Or Data Cache Error ------      tf_txt      tf_txt    C
               Memory Access Error ------      tf_txt      tf_txt    C
```

```
    Mem ECC or Uncorrectable Error ------       tf_txt     tf_txt    C
                Interrupt Pending ------       tf_txt     tf_txt    C
                  PCCAB ECC Error ------       tf_txt     tf_txt    C
                  ECore ECC Error ------       tf_txt     tf_txt    C
                        ECore RTO ------       tf_txt     tf_txt    C
                    MBus Parity ------       tf_txt     tf_txt    C


                                                                  Not
  TIC Configuration Register:                    CPU0       CPU1   Equal
     Bit  6     Enable CMMU Write ------       tf_txt     tf_txt    C
     Bit  5  Disable Snapshot Reg ------       tf_txt     tf_txt    C
     Bit  4 Disable Int Windowing ------       tf_txt     tf_txt    C
     Bit  3             Reset BIC ------       tf_txt     tf_txt    C
     Bit  2         Not User Mode ------       tf_txt     tf_txt    C
     Bit  1   Not Supervisor Mode ------       tf_txt     tf_txt    C


                                                                  Not
  Set Interrupt Level Register:                  CPU0       CPU1   Equal
     Bit  7       Mask Level 8 Set ------       tf_txt     tf_txt    C
     Bit  6       Mask Level 7 Set ------       tf_txt     tf_txt    C
     Bit  5       Mask Level 6 Set ------       tf_txt     tf_txt    C
     Bit  4       Mask Level 5 Set ------       tf_txt     tf_txt    C
     Bit  3       Mask Level 4 Set ------       tf_txt     tf_txt    C
     Bit  2       Mask Level 3 Set ------       tf_txt     tf_txt    C
     Bit  1       Mask Level 2 Set ------       tf_txt     tf_txt    C
     Bit  0       Mask Level 1 Set ------       tf_txt     tf_txt    C


                                                                  Not
Mate Fault Indication Register:                  CPU0       CPU1   Equal
           I/O Error by Peripheral ------       tf_txt     tf_txt    C
                       Clock Failed ------       tf_txt     tf_txt    C
                  Activity Timeout ------       tf_txt     tf_txt    C
                  Sanity Interrupt ------       tf_txt     tf_txt    C
                   Jammed Inactive ------       tf_txt     tf_txt    C
     Peripheral Interrupt Mismatch ------       tf_txt     tf_txt    C
    Bus Parity Or Data Cache Error ------       tf_txt     tf_txt    C
               Memory Access Error ------       tf_txt     tf_txt    C
    Mem ECC or Uncorrectable Error ------       tf_txt     tf_txt    C
                Interrupt Pending ------       tf_txt     tf_txt    C
                  PCCAB ECC Error ------       tf_txt     tf_txt    C
                  ECore ECC Error ------       tf_txt     tf_txt    C
                        ECore RTO ------       tf_txt     tf_txt    C
                    MBus Parity ------       tf_txt     tf_txt    C


                                                                  Not
Mate Fault Indication Register OK:               CPU0       CPU1   Equal
                     Yes/No/Maybe  ------       tf_txt     tf_txt    C


                                                                  Not
Mate Communications Register Status:             CPU0       CPU1   Equal
                          0/16/32   ------       tf_txt     tf_txt    C


  PCCAB REGISTERS:              Not                                 Not
              CPU 0/CPU 1     Equal                   CPU 0/CPU 1   Equal
     STAT: hhhhhhhh/hhhhhhhh    C          CTRL: hhhhhhhh/hhhhhhhh    C
  ECCADDR: hhhhhhhh/hhhhhhhh    C
```

```
                                                                    Not
ECC Address Register:                              CPU0       CPU1  Equal
                     ECC syndrome ------             hh         hh    C
                    Fault Address ------         hhhhhh     hhhhhh    C

                                                                    Not
Status Register:                                   CPU0       CPU1  Equal
                         ECC Error ------       tf_txt     tf_txt    C
                    PLL Lock Fail ------        tf_txt     tf_txt    C
  Refresh Synchronization Status ------         tf_txt     tf_txt    C


                                                                    Not
Control Register:                                  CPU0       CPU1  Equal
                  Prefetch Enable ------        tf_txt     tf_txt    C
              Mbus Parity Enable ------         tf_txt     tf_txt    C
           Branch Decoder Enable ------         tf_txt     tf_txt    C
      Branch Algorithm #2 Enable ------         tf_txt     tf_txt    C
    Prefetch Algorithm #2 Enable ------         tf_txt     tf_txt    C
              Mbus Parity Invert ------         tf_txt     tf_txt    C
               Mbus Burst Enable ------         tf_txt     tf_txt    C
          Phase-Locked Loop Mux ------              X          X     C
                      ECC Enable ------         tf_txt     tf_txt    C
                  ECC test mode ------          tf_txt     tf_txt    C
                ECC Code preset ------             hh         hh    C
                   Cache Flush ------           tf_txt     tf_txt    C
         Refresh Synchronization ------         tf_txt     tf_txt    C
                  Halt Refreshs ------          tf_txt     tf_txt    C

MEI REGISTERS:                Not                                   Not
           CPU 0/CPU 1      Equal                  CPU 0/CPU 1     Equal
   MBPA: hhhhhhhh/hhhhhhhh    C          NBMA: hhhhhhhh/hhhhhhhh    C
   EPEA: hhhhhhhh/hhhhhhhh    C           ERA: hhhhhhhh/hhhhhhhh    C
   IAEA: hhhhhhhh/hhhhhhhh    C          CONF: hhhhhhhh/hhhhhhhh    C
   ERSC: hhhhhhhh/hhhhhhhh    C          CBEG: hhhhhhhh/hhhhhhhh    C
   CEND: hhhhhhhh/hhhhhhhh    C          CPSC: hhhhhhhh/hhhhhhhh    C
   MBSC:     hhhh/hhhh        C          IASC:     hhhh/hhhh        C
   NEM_STAT:   hh/hh          C        GENFLT:       hh/hh          C
   UPD_MODE:   hh/hh          C    LMS_WP_CTR:       hh/hh          C
   EPARI_SC:   hh/hh          C

MEI Configuration Register:                        CPU0       CPU1  Equal
               LMS Addition Wait ------         tf_txt     tf_txt    C
      LMS update Additional Wait ------         tf_txt     tf_txt    C
                  LMS Size Bit 0 ------         tf_txt     tf_txt    C
                  LMS Size Bit 1 ------         tf_txt     tf_txt    C
                  LMS update ATT ------         tf_txt     tf_txt    C
         LMS configuration bit 0 ------         ad_txt     ad_txt    C
         LMS configuration bit 1 ------         ad_txt     ad_txt    C
         LMS configuration bit 2 ------         ad_txt     ad_txt    C
         LMS configuration bit 3 ------         ad_txt     ad_txt    C
         LMS configuration bit 4 ------         ad_txt     ad_txt    C
         LMS configuration bit 5 ------         ad_txt     ad_txt    C
         LMS configuration bit 6 ------         ad_txt     ad_txt    C
         LMS configuration bit 7 ------         ad_txt     ad_txt    C
            MBus interrupt delay ------           h          h       C
           Ecore Additional Wait ------         tf_txt     tf_txt    C
              Ecore wait for ECC ------         tf_txt     tf_txt    C
                 Ecore hold fast ------         tf_txt     tf_txt    C
           Ecore wait for parity ------         tf_txt     tf_txt    C
  Ecore MEMBus burst rd parity dly bit 0        tf_txt     tf_txt    C
  Ecore MEMBus burst rd parity dly bit 1        tf_txt     tf_txt    C
  Ecore MEMBus burst wrt parity dly bit 0       tf_txt     tf_txt    C
  Ecore MEMBus burst wrt parity dly bit 1       tf_txt     tf_txt    C
```

RTO Status/Control Register:	CPU0	CPU1	Not Equal
Ecore RTO Count ------	tf_txt	tf_txt	C
Data Cycles ------	tf_txt	tf_txt	C
Code Cycles ------	tf_txt	tf_txt	C
Ecore RTO override enable bit ------	tf_txt	tf_txt	C
Ecore RTO interrupt enable bit ------	tf_txt	tf_txt	C
Sync ------	tf_txt	tf_txt	C
RTO while RTOV ------	tf_txt	tf_txt	C
Mate Acknowledge ------	tf_txt	tf_txt	C
Slave Acknowledge ------	tf_txt	tf_txt	C
RTO Error ------	tf_txt	tf_txt	C

Copy Staus/Control Register:	CPU0	CPU1	Not Equal
Copy Wait Count ------	hhhh	hhhh	C
Simplex Copy Additional Wait ------	tf_txt	tf_txt	C
Simplex Copy ------	tf_txt	tf_txt	C
Duplex Copy ------	tf_txt	tf_txt	C
Enable Copy Mode Interrupts ------	tf_txt	tf_txt	C
Data Mismatch ------	tf_txt	tf_txt	C
Address Mismatch ------	tf_txt	tf_txt	C
ECC Error ------	tf_txt	tf_txt	C
Bus Parity Error ------	tf_txt	tf_txt	C
Copy Status Bit 0 ------	tf_txt	tf_txt	C
Copy Status Bit 1 ------	tf_txt	tf_txt	C
Copy Error Bit ------	tf_txt	tf_txt	C
Copy Finished ------	True	False	C

Mbus Parity Status/Control Register:	CPU0	CPU1	Not Equal
Mbus Parity Checking Enable ------	tf_txt	tf_txt	C
Mbus Parity Error Interrupt ------	tf_txt	tf_txt	C
Mbus Parity Generation Sense ------	tf_txt	tf_txt	C
Mbus Data Phase Control Error ------	tf_txt	tf_txt	C
Mbus Data Phase Error ------	tf_txt	tf_txt	C
Mbus Addr Phase Control Error ------	tf_txt	tf_txt	C
Mbus Address Phase Error ------	tf_txt	tf_txt	C
Mbus Read/Write Cycle ------	tf_txt	tf_txt	C
Mbus Parity Error Detected ------	tf_txt	tf_txt	C

Incompatible Aceess Status/Ctrl Reg:	CPU0	CPU1	Not Equal
Bad Size Fault Enable ------	tf_txt	tf_txt	C
Bad Acknowledge Fault Enable ------	tf_txt	tf_txt	C
IA Error Interrupt Enable ------	tf_txt	tf_txt	C
Byte Enable 0 ------	tf_txt	tf_txt	C
Byte Enable 1 ------	tf_txt	tf_txt	C
Byte Enable 2 ------	tf_txt	tf_txt	C
Byte Enable 3 ------	tf_txt	tf_txt	C
Dtack - Pbus Acknowledge ------	tf_txt	tf_txt	C
Edtack - Pbus Acknowledge ------	tf_txt	tf_txt	C
Fack - MEMBus Acknowledge ------	tf_txt	tf_txt	C
Back - Burst Acknowledge ------	tf_txt	tf_txt	C
Incompatible Access Error ------	tf_txt	tf_txt	C

Mbus Non-Existant Memory Status Reg:	CPU0	CPU1	Not Equal
Register Access Error ------	tf_txt	tf_txt	C
Non Existant Register Error ------	tf_txt	tf_txt	C
LMS non existent memory Error ------	tf_txt	tf_txt	C

```
          MBus read/write cycle  ------       tf_txt     tf_txt    C
      Non Existant Memory Access  ------       tf_txt     tf_txt    C


                                                                    Not
General Fault Register:                          CPU0       CPU1   Equal
               MBus Parity Error ------       tf_txt     tf_txt    C
                  Mbus NEM Error ------       tf_txt     tf_txt    C
                 Ecore RTO Error ------       tf_txt     tf_txt    C
   Ecore Incompatible Access Err ------       tf_txt     tf_txt    C
          Ecore Bus Parity Error ------       tf_txt     tf_txt    C
                 Ecore ECC Error ------       tf_txt     tf_txt    C
                PLL Out-Of-Range ------       tf_txt     tf_txt    C

                                                                    Not
Update Mode Register:                            CPU0       CPU1   Equal
         LMS Update Mode Control ------       tf_txt     tf_txt    C
        MEMBus Ecore Update Mode ------       tf_txt     tf_txt    C
      BNR-Pbus Ecore Update Mode ------       tf_txt     tf_txt    C
   Maintenance Ecore Update Mode ------       tf_txt     tf_txt    C


                                                                    Not
Ecore Parity Status/Control Reg:                 CPU0       CPU1   Equal
    Ecore Parity Checking Enable ------       tf_txt     tf_txt    C
    Ecore Parity Error Interrupt ------       tf_txt     tf_txt    C
    Ecore Parity Checking Invert ------       tf_txt     tf_txt    C
                  Ecore Parity ------       tf_txt     tf_txt    C
          Ecore Read/Write Cycle ------       tf_txt     tf_txt    C
     Ecore Parity Error Detected ------       tf_txt     tf_txt    C


DMC REGISTERS:              Not                                     Not
            CPU 0/CPU 1     Equal                 CPU 0/CPU 1     Equal
  OS_TIMER:  hhhh/hhhh        C            IRM:     hhhh/hhhh        C
  MM_CTRL:   hhhh/hhhh        C  RESET_STATUS:     hhhh/hhhh        C
  PROC_STAT: hhhh/hhhh        C    CLK_STATUS:     hhhh/hhhh        C


                                                                    Not
Interrupt Mask Status Register:                  CPU0        CPU1  Equal
               Peripheral 0 Mask ------       tf_txt      tf_txt   C
               Peripheral 1 Mask ------       tf_txt      tf_txt   C
               Peripheral 2 Mask ------       tf_txt      tf_txt   C
               Peripheral 3 Mask ------       tf_txt      tf_txt   C
               Peripheral 4 Mask ------       tf_txt      tf_txt   C
               Peripheral 5 Mask ------       tf_txt      tf_txt   C
               Peripheral 6 Mask ------       tf_txt      tf_txt   C
               Peripheral 7 Mask ------       tf_txt      tf_txt   C
Peripheral Interrupt Common Mask ------       tf_txt      tf_txt   C
                     USART Mask ------       tf_txt      tf_txt   C
                     Timer Mask ------       tf_txt      tf_txt   C
                FIR Common Mask ------       tf_txt      tf_txt   C
                   Mismatch Mask ------       tf_txt      tf_txt   C
               MCR_TX_READY Mask ------       tf_txt      tf_txt   C
               MCR_RX_READY Mask ------       tf_txt      tf_txt   C
            Port Card Error Mask ------       tf_txt      tf_txt   C


                                                                    Not
Mismatch Control Register:                       CPU0        CPU1  Equal
                 I saw Mismatch ------       tf_txt      tf_txt   C
              Mate Saw Mismatch ------       tf_txt      tf_txt   C
          I saw Address Mismatch ------       tf_txt      tf_txt   C
```

```
           Own saw Data Mismatch ------       tf_txt      tf_txt   C
             Function Code 0 AHR ------       tf_txt      tf_txt   C
             Function Code 1 AHR ------       tf_txt      tf_txt   C
             Function Code 2 AHR ------       tf_txt      tf_txt   C
           Write Cycle Fault AHR ------       tf_txt      tf_txt   C
              Inhibit AHR Update ------       tf_txt      tf_txt   C
               Mismatch Disabled ------       tf_txt      tf_txt   C

                                                                  Not
Last Reset Status Register:                     CPU0        CPU1  Equal
                     Reset Type ------     reset_txt   rest_txt   C


                                                                  Not
Processor Status Register:                      CPU0        CPU1  Equal
      Testing Interrupt Mismatch ------  testing_txt  testing_txt  C
                  Update Mode ------  update_txt    update_txt  C
                      OffLine ------  offline_txt  offline_txt  C
                Jammed Inactive ------  jammed_txt   jammed_txt   C
                     Clock Used ------    clk_txt     clk_txt     C
                         CPU ID ------    cpu_txt     cpu_txt     C
                       Activity ------    act_txt     act_txt     C
     Super-Sanity Reset Occurred ------     tf_txt      tf_txt     C
                     Mate FIR ------     ok_txt      ok_txt     C
        Mate Jam_Inactive Status ------  jammed_txt   jammed_txt   C
             Mate Offline Status ------  offline_txt  offline_txt  C


                                                                  Not
 Clock Status Register:                         CPU0        CPU1  Equal
         Own Clock Source Failed ------       tf_txt      tf_txt   C
        Mate Clock Source Failed ------       tf_txt      tf_txt   C
                    Clock Source ------      clk_txt     clk_txt   C
          Reference Clock Failed ------       tf_txt      tf_txt   C


STACK DUMP:     CPU 0        CPU 1          MTC INFO:   CPU 0        CPU 1
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                hhhhhhhh    hhhhhhhh                    hhhhhhhh    hhhhhhhh
                                                                  Not
 MTC INFO Register 1:                           CPU0        CPU1  Equal
                mtc_info_text
                                                                  Not
 MTC INFO Register 2:                           CPU0        CPU1  Equal
                mtc_info_text
                                                                  Not
 MTC INFO Register 3:                           CPU0        CPU1  Equal
                mtc_info_text


                                                                  Not
 MTC INFO Register 4:                           CPU0        CPU1  Equal
                mtc_info_text


                                                                  Not
 MTC INFO Register 5:                           CPU0        CPU1  Equal
                mtc_info_text
```

```
                                                                  Not
 MTC INFO Register 6:                          CPU0        CPU1  Equal
               mtc_info_text


                                                                  Not
 MTC INFO Register 7:                          CPU0        CPU1  Equal
               mtc_info_text


                                                                  Not
 MTC INFO Register 8:                          CPU0        CPU1  Equal
               mtc_info_text


TRACEBACK:       CPU 0                                CPU 1
 hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh
 hhhhhhhh=modnm: proctxt+#hhhh        hhhhhhhh=modnm: proctxt+#hhhh

MEMORY CONFIGURATION :
            CPU 0                                CPU 1
Card 0 has x memsiz memory modules.    Card 0 has x memsiz memory modules.
Address ranges are:                    Address ranges are:
  Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (s)
  Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (s)
  Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (s)
Card 1 has x memsiz memory modules.    Card 1 has x memsiz memory modules.
Address ranges are:                    Address ranges are:
  Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (f)
  Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (f)
  Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (f)
            o                                      o
            o                                      o
            o                                      o


Card n has x memsiz memory modules.    Card n has x memsiz memory modules.
Address ranges are:                    Address ranges are:
  Mod 0: mem_range_txt          (s)      Mod 0:  mem_range_txt          (f)
  Mod 1: mem_range_txt          (s)      Mod 1:  mem_range_txt          (f)
  Mod 2: mem_range_txt          (s)      Mod 2:  mem_range_txt          (f)
```

Explanation

This is the longest system response with all the possible registers decoded for a mismatch information. It can be output by the following commands

```
MMINFO LAST DECODE
  -- or --
MMINFO RESTART DECODE
  -- or --
MMINFO seqno DECODE
```

when they are invoked in BRISC based sync-match nodes.

Since the DECODE form of mismatch information is an enhancement of the non-DECODE one, only new field descriptions are depicted as follows.

FIELD	VALUE	DESCRIPTION
fc_txt	Text	Specifies the fault encountered for each CMMU.
tf_txt	'True''False'	Specifies the value of a boolean variable.
cmmu_scr_text	Text	Signifies the command code for initiate the probe and cache control functions.
Sup_user_txt	'Supervisor'/ 'User'	Signifies the supervisor or user address space of BATC.
ad_txt	'ATT''DATA'	LMS Band configuration status.
reset_txt	TEXT	Last System Reset type.
testing_txt	TEXT	Text for testing mismatch interrupt.
update_txt	TEXT	Update mode status.
offline_txt	TEXT	Is system offline.
jammed_txt	TEXT	Inactive CPU is jammed.
cpu_txt	TEXT	Which CPU am I.
act_txt	TEXT	Is this CPU active.
ok_txt	TEXT	Is Mate FIR ok.
offline_txt	TEXT	Is Mate in Offline Status.
clk_txt	'OWN''MATE'	Which Clock my CPU is using.
mtc_info_txt	TEXT	Decode MTC INFO register.

System Action

None.

User Action

None.

Notes

Examples

Example 1.

To view the most recent mismatch information, enter: > MMINFO LAST

```
In BRISC based sync-match nodes, an example of the system
response is shown as follows:


*** Note *** This is the brief format for displaying mismatch
             information. The user can have more detailed
             output through invoking 'DECODE' option.

    MMINFO  1 JUL03 09:30:00
    Mismatch number 1, Activity: Start: CPU 0, Final: CPU 0
    Mismatch found:   Processor registers different,
    System recovery action Full store copy undertaken
    Status of recovery: Recovery action initiated.
                                                          Not
                  CPU 0                       CPU 1       Equal
                Data is valid                 Data is valid


Module Entry:  CMRMSWPR SSTI: #00F8     CMRMSWPR SSTI: #00FC      *
   AHR Value:  10111830                     1011183f              *
    AHR Data:  00000000                     00000000
TIC Code AHR:  12341234                     12341234
TIC Data AHR:  12341234     (logical)       12341234
TIC Data AHR:  12341234     (physical)      12341236              *
         MCR:  12341234                     12341234
Owner #0026,#0000: Module SCHED             Owner #0026,#0000: Module SCHED


PROCESSOR REGISTERS:   Not                        Not                        Not
        CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal         CPU 0/CPU 1   Equal
  R1: 12341234/12341234       R2: 12341234/12341234       R3: 12341234/12341234
  R4: 12341234/12341234       R5: 12341234/12341234       R6: 12341234/12341234
  R7: 12341234/12341234       R8: 12341234/12341234       R9: 12341234/12341234
 R10: 12341234/12341234      R11: 12341234/12341234      R12: 12341234/12341234
 R13: 12341234/12341234      R14: 12341234/12341234      R15: 12341234/12341234
 R16: 12341234/12341234      R17: 12341234/12341234      R18: 12341234/12341234
 R19: 12341234/12341234      R20: 12341234/12341234      R21: 12341234/12341234
 R22: 12341234/12341234      R23: 12341234/12341234      R24: 12341234/12341234
 R25: 12341234/12341234      R26: 12341234/12341234      R27: 12341234/12341234
 R28: 12341234/12341234      R29: 12341234/12341234      R30: 12341234/12341234
 R31: 12341234/12341234     EPSR: 12341234/12341234
SXIP: 12341234/12341234     SNIP: 12341234/12341234     SFIP: 12341234/12341234
 SR2: 12341234/12341234      SR3: 12341234/12341234


    CODE CMMU 0 REGs   Not     DATA CMMU 0 REGs   Not     DATA CMMU 1 REGs   Not
```

```
         CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal
   SAR: 12341234/12341238 *    SAR: 12341234/12341234      SAR: 12341234/12341234
  PFSR: 12341234/12341234     PFSR: 12341234/12341234     PFSR: 12341234/12341234
  PFAR: 12341234/12341234     PFAR: 12341234/12341234     PFAR: 12341234/12341234
   SSR:     1234/1234           SSR:     1234/1238     *   SSR:     1234/1234
   SCR:        0/1         *   SCR:        0/0             SCR:        1/1
                              BWP7: 12345678/12345678    BWP7: 12345567/12345678 *


  TRACE/INTERRUPT CONTROLLER (TIC) REGISTERS:


  ComeFroms:        CPU 0                                CPU 1
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  F: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038
  D: 12341234=CMMEMORY.AQ02:CHECKSUM+#0038 12341234=CMMEMORY.AQ02:CHECKSUM+#0038


                              Not                                    Not
             CPU 0/CPU 1     Equal                CPU 0/CPU 1     Equal
     INT: 12345678/1234567F    *          INTC: 12345678/12345678
    SINT: 12345678/12345678               GMSK: 12345678/12345678
     FIR: 12345678/12345678               CONF:        1/0          *
 Mate_FIR: 12345678/12345678           SINTMSK:        0/0
MateFIR_OK:       y/y                 MCR_STAT:        2/2


  PCCAB REGISTERS:            Not                                    Not
             CPU 0/CPU 1     Equal                CPU 0/CPU 1     Equal
    STAT: 12345678/12345674    *          CTRL: 12345678/12345678
  ECCADDR: 12345678/12345678


  MEI REGISTERS:              Not                                    Not
             CPU 0/CPU 1     Equal                CPU 0/CPU 1     Equal
```

```
    MBPA: 12345678/12345678              NBMA: 12345678/12345678
    EPEA: 12345678/12345678               ERA: 12345678/12345678
    IAEA: 12345678/12345678              CONF: 12345678/12346678    *
    ERSC: 12345668/12345678    *         CBEG: 12345678/12345678
    CEND: 12345678/12345678              CPSC: 12345678/12345678
    MBSC:     0000/0000                   IASC:     1F3D/1F3D
    NEM_STAT:   00/FF          *       GENFLT:       FF/01          *
    UPD_MODE:   00/00                LMS_WP_CTR:      00/00
    EPARI_SC:   FF/FF

DMC REGISTERS:               Not                                 Not
            CPU 0/CPU 1     Equal                CPU 0/CPU 1    Equal
  OS_TIMER:  5678/5678                    IRM:     5678/5678
  MM_CTRL:   5678/56D8        *  RESET_STATUS:     5678/5678
  PROC_STAT: 5678/5678             CLK_STATUS:     5688/5678       *


STACK DUMP:     CPU 0       CPU 1          MTC INFO:   CPU 0       CPU 1
                E0012E20    12345678                   12345678    12345678
                EFFF0000    12345678                   12345678    12345678
                12345678    12345678                   12345678    12345678
                12345678    12345678                   12345678    12345678
                12345678    12345678                   12345678    12345678
                12345678    12345678                   12345678    12345678
                12345678    12345678                   12345678    12345678
                12345678    12345678                   12345678    12345678

TRACEBACK:       CPU 0                          CPU 1
040604A0=SCHED.EG08:THESCHED+#00F0    0406049C=SCHED.EG08:THESCHED+#00EC
0406189C=SCHED.EG08:TIMESLIC+#00EC    0406189C=SCHED.EG08:TIMESLIC+#00EC
040626AA=TIMER.EI04:CLOCK_IN+#02B4    040626AA=TIMER.EI04:CLOCK_IN+#02B4
04032494=INTSYS.AR27:CLOCK_IN+#0194   04032494=INTSYS.AR27:CLOCK_IN+#0194
04013E18=CPUHWUI.AR43:CPUS_ARE+#0038  04013E18=CPUHWUI.AR46:CPUS_ARE+#0038
04245170=CMKRNLAP.AG25:GET_SYNC+#0010 04245170=CMKRNLAP.AE25:SET_SYNC+#0010
0427FEAC=CMMEMORY.AR23:MATCH_CA+#012C 0427FEAC=CMMEMORY.AR23:MATCH_CA+#012C
0428705C=CMMEMORY.AR23:RMS_MATC+#009C 0428705C=CMMEMORY.AR23:LIVEANDD+#009C
                tracetxt                       tracetxt


MEMORY CONFIGURATION :
            CPU 0                              CPU 1
Card 1 has 3 8MByte memory modules.   Card 1 has 3 8MByte memory modules.
Address ranges are:                   Address ranges are:
  Mod 0: spare,                (f)      Mod 0:  spare,                (f)
  Mod 1: spare,                (f)      Mod 1:  spare,                (f)
  Mod 2: spare.                (f)      Mod 2:  spare,                (f)
Card 2 has 3 8MByte memory modules.   Card 2 has 3 8MByte memory modules.
Address ranges are:                   Address ranges are:
  Mod 0: spare,                (f)      Mod 0:  spare,                (f)
  Mod 1: spare,                (f)      Mod 1:  spare,                (f)
  Mod 2: spare.                (i)      Mod 2:  spare,                (f)
Card 3 has 3 8MByte memory modules.   Card 3 has 3 8MByte memory modules.
Address ranges are:                   Address ranges are:
  Mod 0: #24000000 to #247FFFFE, (f)    Mod 0: #24000000 to #247FFFFE, (f)
  Mod 1: #24800000 to #24FFFFFE, (i)    Mod 1: #24800000 to #24FFFFFE, (f)
  Mod 2: #20000000 to #207FFFFE. (.)    Mod 2: #20000000 to #207FFFFE. (f)
Card 4 has 3 8MByte memory modules.   Card 4 has 3 8MByte memory modules.
Address ranges are:                   Address ranges are:
  Mod 0: #22800000 to #22FFFFFE, (i)    Mod 0: #24000000 to #247FFFFE, (f)
  Mod 1: #23000000 to #237FFFFE, (i)    Mod 1: #24800000 to #24FFFFFE, (f)
  Mod 2: #23800000 to #23FFFFFE. (i)    Mod 2: #20000000 to #207FFFFE. (f)
Card 5 has 3 8MByte memory modules.   Card 5 has 3 8MByte memory modules.
Address ranges are:                   Address ranges are:
  Mod 0: #22800000 to #22FFFFFE, (i)    Mod 0: #24000000 to #247FFFFE, (f)
```

```
  Mod 1: #23000000 to #237FFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
  Mod 2: #23800000 to #23FFFFFE. (i)       Mod 2: #20000000 to #207FFFFE. (f)
Card 6 has 3 8MByte memory modules.      Card 6 has 3 8MByte memory modules.
Address ranges are:                      Address ranges are:
  Mod 0: #22800000 to #22FFFFFE, (i)       Mod 0: #24000000 to #247FFFFE, (f)
  Mod 1: #23000000 to #237FFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
  Mod 2: #23800000 to #23FFFFFE. (i)       Mod 2: #20000000 to #207FFFFE. (f)

In 68K based sync-match nodes, an example of the system
response is shown as follows:


*** Note *** This is the brief format for displaying mismatch
             information. The user can have more detailed
             output through invoking 'DECODE' option.


    MMINFO   1 JUL03 09:30:00
    Mismatch number 1, Activity: Start: CPU 0, Final: CPU 0
    Mismatch found:   Processor registers different,
    System recovery action Test Mate, resync undertaken.
    Status of recovery: Recovery action initiated.

                                                                    Not
                  CPU 0                          CPU 1            Equal
               Data is valid                  Data is valid


Module Entry:  CMRMSWPR SSTI: #00F8     CMRMSWPR SSTI: #00FC      *
   AHR Value:  10111830                     1011183f              *
    AHR Data:  00000000                     00000000
     MAU AHR:  12341234                     12341234
         MCR:  12341234                     12341234
Owner #0026,#0026: Module SCHED          Owner #0026,#0026: Module SCHED


PROCESSOR REGISTERS:   Not                          Not                          Not
        CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal          CPU 0/CPU 1  Equal
  A1: 01234567/01234567       A2: 01234567/01234567       A3: 01234567/01234567
  A4: 01234567/01234567       A5: 01234567/01234567       A6: 01234567/01234567
  D1: 01234567/01234567       D2: 01234567/01234567       D3: 01234567/01234567
  D4: 01234567/01234567       D5: 01234567/01234567       D6: 01234567/01234567
  D7: 01234567/01234567
  PC: 01234567/01234567      USP: 01234567/01234567      ISP: 01234567/01234567
 MSP: 01234567/01234567       SR:     0123/0123        ICACHE:    0123/0123


VIRTUAL REGISTERS:           Not                                    Not
            CPU 0/CPU 1     Equal                  CPU 0/CPU 1     Equal
   MBPA: 01234567/01234567                NBMA: 01234567/01234567
    FIR:     1234/1234                 MM_Ctrl:     1234/1234
OS Timer:    1234/1234                MAU_ctrl:     1234/1234
MAU_err:     1234/1234                Clk_stat:     1234/1234
     FC:     1234/1234                     IRM:     1234/1234
ProcStat:    1234/1234                SRam_Err:     1234/1234
 PerInt:     1234/1234                    Prot:     1234/1234
Mate_FIR:    1234/1234              MateFIR_OK:        y/y
MCR_STAT:       2/2

MTC INFO:       CPU 0       CPU 1
              01234567    01234567
              01234567    01234567
              01234567    01234567
              01234567    01234567
```

```
                01234567    01234567
                01234567    01234567


   USER                                          INTERRUPT
  STACK DUMP:     CPU 0        CPU 1           STACK DUMP:   CPU 0        CPU 1
                01234567    01234567                       01234567    01234567
                01234567    01234567                       01234567    01234567
                01234567    01234567                       01234567    01234567
                01234567    01234567                       01234567    01234567
                01234567    01234567                       01234567    01234567
                01234567    01234567                       01234567    01234567


  TRACEBACK:       CPU 0                                        CPU 1
  0B111268=CMMEMORY.AQ02:CHECKSUM+#0038    0B111268=CMMEMORY.AQ02:CHECKSUM+#0038
  0B11C346=CMMEMORY.AQ02:SET_CHEC+#014E    0B11C346=CMMEMORY.AQ02:SET_CHEC+#014E
  0B1136D4=CMMEMORY.AQ02:DO_CHECK+#0084    0B1136D4=CMMEMORY.AQ02:DO_CHECK+#0084
  0B299A8E=CMCHKPR.AH02:CHECKSUM+#008A     0B299A8E=CMCHKPR.AH02:CHECKSUM+#008A
  0B04AAA8=MODULES.CE33:INITIALIZEP+#0014
0B04AAA8=MODULES.CE33:INITIALIZEP+#0014
  0B03330A=PROCS.EE10:LIVEANDD+#0012       0B03330A=PROCS.EE10:LIVEANDD+#0012


  MEMORY CONFIGURATION :
               CPU 0                                        CPU 1
  Card 1 has 3 8MByte memory modules.      Card 1 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: spare,                  (f)       Mod 0:  spare,                 (f)
    Mod 1: spare,                  (f)       Mod 1:  spare,                 (f)
    Mod 2: spare.                  (f)       Mod 2:  spare,                 (f)
  Card 2 has 3 8MByte memory modules.      Card 2 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: spare,                  (f)       Mod 0:  spare,                 (f)
    Mod 1: spare,                  (f)       Mod 1:  spare,                 (f)
    Mod 2: spare.                  (i)       Mod 2:  spare,                 (f)
  Card 3 has 3 8MByte memory modules.      Card 3 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: #24000000 to #247FFFFE, (f)       Mod 0: #24000000 to #247FFFFE, (f)
    Mod 1: #24800000 to #24FFFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
    Mod 2: #20000000 to #207FFFFE. (.)       Mod 2: #20000000 to #207FFFFE. (f)
  Card 4 has 3 8MByte memory modules.      Card 4 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: #22800000 to #22FFFFFE, (i)       Mod 0: #24000000 to #247FFFFE, (f)
    Mod 1: #23000000 to #237FFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
    Mod 2: #23800000 to #23FFFFFE. (i)       Mod 2: #20000000 to #207FFFFE. (f)
  Card 5 has 3 8MByte memory modules.      Card 5 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: #22800000 to #22FFFFFE, (i)       Mod 0: #24000000 to #247FFFFE, (f)
    Mod 1: #23000000 to #237FFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
    Mod 2: #23800000 to #23FFFFFE. (i)       Mod 2: #20000000 to #207FFFFE. (f)
  Card 6 has 3 8MByte memory modules.      Card 6 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: #22800000 to #22FFFFFE, (i)       Mod 0: #24000000 to #247FFFFE, (f)
    Mod 1: #23000000 to #237FFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
    Mod 2: #23800000 to #23FFFFFE. (i)       Mod 2: #20000000 to #207FFFFE. (f)
  Card 7 has 3 8MByte memory modules.      Card 7 has 3 8MByte memory modules.
  Address ranges are:                      Address ranges are:
    Mod 0: #22800000 to #22FFFFFE, (f)       Mod 0: #24000000 to #247FFFFE, (f)
    Mod 1: #23000000 to #237FFFFE, (i)       Mod 1: #24800000 to #24FFFFFE, (f)
    Mod 2: #23800000 to #23FFFFFE. (i)       Mod 2: #20000000 to #207FFFFE. (f)
```

Example 2.

‘MMINFO Last’ with ‘data not valid’ set in mismatch log (M68K).

```
Mismatch Log Number 63 AT Feb-23 21:01:09

Activity: Start: CPU 1, Final: CPU 1
Mismatch found:  Mate failed rendezvous,
System recovery action: No recovery to be done .
Mismatch recovery successful.

                  CPU 0                          CPU 1
                  Data IS NOT valid.             Data is valid

Module Entry:  Unknown               DKDM03 SSTI: #06A0
AHR Value:     XXXXXXXX                     0B0FA24C
AHR Data:      XXXXXXXX                     A5A5A5A5
MAU AHR :      XXXXXXXX                     000E0240
MCR     :      XXXXXXXX                     00000000
Not Found                                   Not Found

PROCESSOR REGISTERS:   Not                        Not                        Not
         CPU 0/CPU 1  Equal        CPU 0/CPU 1  Equal        CPU 0/CPU 1  Equal
  A0: XXXXXXXX/00044FA8     A1: XXXXXXXX/01D25928     A2: XXXXXXXX/01D25920
  A3: XXXXXXXX/01D25920     A4: XXXXXXXX/00044F9C     A5: XXXXXXXX/0240ECE8
  A6: XXXXXXXX/000450DE
  D0: XXXXXXXX/00000016     D1: XXXXXXXX/7FFF00E4     D2: XXXXXXXX/FD800016
  D3: XXXXXXXX/001A0000     D4: XXXXXXXX/00000016     D5: XXXXXXXX/00000080
  D6: XXXXXXXX/00000046     D7: XXXXXXXX/FFFF0000
  PC: XXXXXXXX/0B0FA24A    USP: XXXXXXXX/0240ECB0     SR:      XXXX/0000
 ISP: XXXXXXXX/00042B6C    MSP: XXXXXXXX/0040E7D0     ICACHE:  XXXX/0001

Virtual Registers:           Not                                  Not
            CPU 0/CPU 1     Equal                CPU 0/CPU 1     Equal
        FIR: XXXX/0000                   MM_ctrl: XXXX/0822
      Timer: XXXX/99A8                  Clk_stat: XXXX/0004
   Mau_ctrl: XXXX/008D                   Mau_Err: XXXX/0080
     F-Code: XXXX/0002                       IRM: XXXX/0000
   ProcStat: XXXX/6E00                  SRam_Err: XXXX/FFC0
    Per_Int: XXXX/0055                  Acc_prot: XXXX/00EF
   Mate_FIR: XXXX/0000                MateFIR_OK:    y/y
   MCR_STAT:    X/2

User Stack Dump                             Interrupt Stack Dump

      XXXXXXXX   00000005                   XXXXXXXX   FDFDFDFD
      XXXXXXXX   0003FFFC                   XXXXXXXX   FDFDFDFD
      XXXXXXXX   00AA8516                   XXXXXXXX   FDFDFDFD
      XXXXXXXX   001A0000                   XXXXXXXX   FDFDFDFD
      XXXXXXXX   01D25920                   XXXXXXXX   FDFDFDFD
      XXXXXXXX   0240ECF2                   XXXXXXXX   FDFDFDFD

 MTC Info:

      XXXXXXXX                              020C1500
      XXXXXXXX                              00101490
      XXXXXXXX                              00000000
      XXXXXXXX                              00010000
      XXXXXXXX                              00000000
      XXXXXXXX                              00000000
```

```
Traceback:
XXXXXXXX=XXXX.XXXX                      0B0FA24A=IOUI.GI03:WRITE_DS+#025E
XXXXXXXX=XXXX.XXXX                      0B0F3F12=IOUI.GI03:OUTPUT_DS512_+#008A
XXXXXXXX=XXXX.XXXX                      0D53F59E=DKDM04.AY02:SLM_OUT_+#0792
XXXXXXXX=XXXX.XXXX                      0B7AA144=DKDM03.AR03:DM_SEND_M+#0060
XXXXXXXX=XXXX.XXXX                      0B7A7B90=DKDM03.AR03:
                                                DM_DEVICE_DRIVER_B+#012C
XXXXXXXX=XXXX.XXXX                      0B7A80D0=DKDM03.AR03:
XXXXXXXX=XXXX.XXXX                              DM_DEVICE_DRIVER_P+#02B8
  .                                     0B049B3C=MODULES.DP02:INITIALIZEP+#0014


MEMORY CONFIGURATION :
             CPU 0                                  CPU 1
                                       Card 1 has 3 8MByte modules
                                         Mod 0 : Spare
                                         Mod 1 : Spare
                                         Mod 2 : Spare
                                       Card 2 has 3 8MByte modules
                                         Mod 0 : #00800000 to #00FFFFFE
                                         Mod 1 : #01000000 to #017FFFFE
                                         Mod 2 : #01800000 to #01FFFFFE
                                       Card 3 has 3 8MByte modules
                                         Mod 0 : #05800000 to #05FFFFFE
                                         Mod 1 : #06000000 to #067FFFFE
                                         Mod 2 : #00400000 to #007FFFFE
                                       Card 4 has 3 8MByte modules
                                         Mod 0 : #02000000 to #027FFFFE
                                         Mod 1 : #02800000 to #02FFFFFE
                                         Mod 2 : #03000000 to #037FFFFE
                                       Card 5 has 3 8MByte modules
                                         Mod 0 : #0C000000 to #0C7FFFFE
                                         Mod 1 : #0C800000 to #0CFFFFFE
                                         Mod 2 : #0D000000 to #0D7FFFFE
                                       Card 6 has 3 8MByte modules
                                         Mod 0 : #05000000 to #057FFFFE
                                         Mod 1 : #0B000000 to #0B7FFFFE
                                         Mod 2 : #0B800000 to #0BFFFFFE
                                       Card 7 has 3 8MByte modules
                                         Mod 0 : #03800000 to #03FFFFFE
                                         Mod 1 : #04000000 to #047FFFFE
                                         Mod 2 : #04800000 to #04FFFFFE
                                       Card 8 has 3 8MByte modules
                                         Mod 0 : Spare
                                         Mod 1 : Spare
                                         Mod 2 : Spare
                                       Card 9 has 3 8MByte modules
                                         Mod 0 : #06800000 to #06FFFFFE
                                         Mod 1 : #0D800000 to #0DFFFFFE
                                         Mod 2 : Spare
```

Command name: INITHIST

Command type:

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

NONRES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command initializes the Mismatch History Database to a default configuration, with all entries marked invalid, and default values written to all fields.

Warning

WARNING - Execution of this command will cause all prior mismatch history information to be deleted. This may affect the proper isolation and reportingof faults by the mismatch handler. This command should be executed only within a lab environment for testing of the mismatch history database.

Command syntax

```
INITHIST - Initialize the mismatch history database.
```

Parameter definitions

Table 4-87 INITHIST Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
Mismatch history database has been initialized.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response indicates that command execution was successful, resulting in re-initialization of the mismatch history database. Since this is a lab command, no prompt for confirmation is required.

System action:

All entries of the mismatch history database (both MFC and MM portions) are marked as invalid, and default values are written to all fields.

User action:

N/A

Response 3

```
Mismatch history database could not be initialized.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response indicates that command execution was unsuccessful, due to a failure to unprotect data store.

System action:

N/A

User action:

Initialization failure is due to the inability to remove data store access protection. This would normally be the case due to an image dump in progress. Wait until the image dump is completed and re-try the command.

Notes

N/A

Examples

Example 1

Successful re-initialization of the mismatch history database

```
> INITHIST

Mismatch history database has been initialized.

>
```

Command name: PRTHIST

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

NONRES (MMTEST)
NONRES (CMINFO)

Command description

This command is not applicable to Series 70 BRISC platforms.
The command causes the current contents of the Mismatch History Database to be displayed. It is implemented identically in the lab NONRES tool MMTEST as well as the TAS NONRES tool CMINFO.
With no arguments, all valid entries in both FLT and MFC portions of the database are displayed. Optionally, the display can be limited to only one portion of the database, or to a single event within either the FLT or MFC portions. The complete database contents, including entries which are not valid, can be displayed by specifying the COMPLETE option. If the COMPLETE option is specified, the sequence number (if entered) is ignored.

Warning

N/A

Command syntax

```
PRTHIST - List contents of mismatch history database.
Parameters:   [which_db] { FLT,
                           MFC },
              [complete] { COMPLETE },
              [seq_num]  { 0 TO 32767 }
```

Parameter definitions

Table 4-88 PRTHIST Parameter Definitions

PARAMETER	VALUE	DEFINITION
[which_db]	{ FLT, MFC }	Variable, Optional
[complete]	{ COMPLETE }	Constant, Optional
[seq_num]	{ 0 TO 32767 }	Numeric, Optional

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
The <which_db> mismatch history database contains no valid events.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed when a portion of the mismatch history database contains no valid events, and the COMPLETE option has not been specified.

System action:

N/A

User action:

N/A

Response 3

```
 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
 <y_n>  <seq>     <date_time>     <cpu>  <cpu>  <mm_rsn> <mm_cnd>

                                Shelf  Slot  Mod     ECC        Data
                                 <shf> <slot><mod>   <ecc>      <data>
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed for each valid MFC history database entry within the desired display set.

System action:

N/A

User action:

N/A

Response 4

```
 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
 <y_n>  <seq>     <date_time>     <cpu>  <cpu>  <mm_rsn> <mm_cnd>

     |              Shelf 0             |              Shelf 1
     |   Plane 0           Plane 1      |     Plane 0          Plane 1
-------------------------------------------------------------------------------
 FRNT |.............|.............|.............|.............
 BACK |.............|.............|.............|.............
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed for each valid FLT mismatch database entry in the display set. For each circuit pack, a single-character code is displayed representing the fault probability level assigned to that pack for that FLT mismatch event. The possible characters consist of:

- . NO_FAULT
- I IMPROBABLE_FAULT
- P PROBABLE_FAULT
- C CERTAIN_FAULT

System action:

N/A

User action:

N/A

Response 5

```
Event <seq_num> does not exist in the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

If a sequence number is supplied which does not reference a valid entry in the appropriate database, this response will be generated.

System action:

N/A

User action:

Verify that the parameter data was input correctly. If you are unsure which event sequence numbers are valid for that portion of the mismatch history database, broaden the display criteria by omitting the sequence number.

Notes

N/A

Examples

Example 1

Mismatch history database is empty, and the PRTHIST command is entered with no arguments, defaulting to display the entire database.

```
> PRTHIST

The MFC database contains no valid events.
The FLT database contains no valid events.

>
```

Example 2

Only the FLT portion of the mismatch history database is to be displayed. There are 2 valid events in the FLT portion of the database.

```
> PRTHIST FLT
```

```
 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
   Y       4 Jan-01 00:26:52.902   0       1      02       0B

     |            Shelf 0               |              Shelf 1
     |   Plane 0           Plane 1      |     Plane 0          Plane 1
-------------------------------------------------------------------------
FRNT |..............C|I..............|.............|.............
BACK |.............|.............|.............|.............


 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
   Y       7 Jan-01 06:35:11.193   0       1      09       00

     |            Shelf 0               |              Shelf 1
     |   Plane 0           Plane 1      |     Plane 0          Plane 1
-------------------------------------------------------------------------
FRNT |.............|.............|.............|.............
BACK |.............|.............|.............|.............

 >
```

Example 3

Three MFC events have been recorded in the mismatch history database, but the FLT portion of the database is empty. The PRTHIST command is entered with no arguments, defaulting to display of the entire database.

```
 > PRTHIST


 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
   Y      23  Jan-01 00:26:52.902   0      1       00      00

                                Shelf  Slot  Mod     ECC        Data
                                   0    14     0   #A129D436  #00000000

 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
   Y      24  Jan-01 00:26:52.902   0      1       00      00

                                Shelf  Slot  Mod     ECC        Data
                                   0    14     0   #A129D436  #00000000

 The FLT mismatch history database contains no valid events.

 >
```

Example 4

Both portions of the mismatch history database are non-empty. Two MFC events have been recorded, and two FLT events.

```
 > PRTHIST

 Valid   Seq       Timestamp     ActPre ActPost Reason Condition
   Y      23  Jan-01 00:26:52.902   0      1       00      00

                                Shelf  Slot  Mod     ECC        Data
                                   0    14     0   #A129D436  #00000000
```

```
  Valid   Seq       Timestamp     ActPre ActPost Reason Condition
    Y      24  Jan-01 00:26:52.902   0      1       00      00

                                 Shelf  Slot  Mod     ECC        Data
                                    0    14     0   #A129D436  #00000000


  Valid   Seq       Timestamp     ActPre ActPost Reason Condition
    Y       4 Jan-01 00:26:52.902   0       1      02       0B

      |            Shelf 0               |              Shelf 1
      |   Plane 0           Plane 1      |     Plane 0          Plane 1
-------------------------------------------------------------------------
 FRNT |..............C|I.............|.................|.................
 BACK |.................|.............|.................|.................


  Valid   Seq       Timestamp     ActPre ActPost Reason Condition
    Y       7 Jan-01 06:35:11.193   0       1      09       00

      |            Shelf 0               |              Shelf 1
      |   Plane 0           Plane 1      |     Plane 0          Plane 1
-------------------------------------------------------------------------
 FRNT |.................|.............|.................|.................
 BACK |.................|.............|.................|.................
```

Example 5

The PRTHIST command is entered to display only FLT mismatch 23, but this event does not exist in the FLT portion of the history database.

```
> PRTHIST FLT 23

Event 23 does not exist in the FLT portion of the mismatch history database.

>
```

Example 6

The PRTHIST command is entered to display only MFC mismatch 23, which does exist as a valid entry in the MFC portion of the history database.

```
> PRTHIST MFC 23

Valid   Seq       Timestamp     ActPre ActPost Reason Condition
  Y      23  Jan-01 00:26:52.902   0      1       00      00

                                 Shelf  Slot  Mod     ECC        Data
                                    0    14     0   #A129D436  #00000000

>
```

Example 7

The PRTHIST command is entered with the COMPLETE option.

```
> PRTHIST FLT COMPLETE
```

```
Valid   Seq       Timestamp     ActPre ActPost Reason Condition
  Y      23  Jan-01 00:26:52.902   0      1       00      00

                                Shelf  Slot  Mod     ECC        Data
                                   0    14     0   #A129D436  #00000000

Valid   Seq       Timestamp     ActPre ActPost Reason Condition
  N      00  Jan-01 00:00:00.000   0      0       00      00

                                Shelf  Slot  Mod     ECC        Data
                                   0    00     0   #00000000  #00000000

... all other valid and invalid entries ...

Valid   Seq       Timestamp     ActPre ActPost Reason Condition
  Y      38  Jan-01 00:26:52.902   0      1       00      00

                                Shelf  Slot  Mod     ECC        Data
                                   0    14     0   #A129D436  #00000000

>
```

Command name: CLREVENT

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

NONRES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command will invalidate the mismatch history database record(s) specified by the parameter data. Some kind of event specification must be entered, either ALL or a particular sequence number.
The CLREVENT command differs from the INITHIST command in the CLREVENT simply marks events invalid, while the INITHIST command re-initializes all database fields to default values. Also, greater selectivity is provided via the CLREVENT command to invalidate only a single event or only one portion of the database.

Warning

WARNING - Execution of this command will cause a portion of the mismatch history database to be cleared. This may affect the proper isolation and reporting of faults by the mismatch handler. This command should be executed only within a lab environment for testing of the mismatch history database.

Command syntax

```
CLREVENT - Clear mismatch history pertaining to a single event.
Parameters:  <which_db> { FLT,
                          MFC },
              <event>   { { <all>     {ALL}} ,
                          { <seq_num> {0 TO 32767} } }
```

Parameter definitions

Table 4-89 CLREVENT Parameter Definitions

PARAMETER	VALUE	DEFINITION
<which_db>	{ FLT, MFC }	Variable, Mandatory
<all>	{ ALL }	Constant, Optional
<seq_num>	{ 0 TO 32767 }	Numeric, Optional

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
Could not uprotect DS
Event <seq_num> could not be cleared from the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is allocated from PROTECTED memory. If the access protection for this memory could not be disabled in order to make the update, this response will be generated. This is usually due to an image dump in progress.

System action:

N/A

User action:

Correct the root cause of the failure to unprotect data store (usually due to an image dump in progress), and enter the command again.

Response 3

```
Event <seq_num> does not exist in the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

If the supplied parameters do not reference a valid entry in the appropriate database, this response will be generated.

System action:

No changes will be made to the mismatch history database.

User action:

Verify that the parameter data was input correctly. Use the PRTHIST command to display the entire contents of the mismatch history database in order to determine which events are valid for each portion of the database.

Response 4

```
Event <seq_num> has been cleared from the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is generated when the supplied parameters reference a FLT or MFC mismatch event which is present as a valid entry in the appropriate portion of the mismatch history database.

System action:

Mismatch history for the specified event will be marked as invalid in the appropriate portion of the database.

User action:

N/A

Response 5

```
All events have been cleared from the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is generated when the supplied parameters indicate that all of the valid entries of either the FLT or MFC portions of the mismatch history database should be cleared.

System action:

All events in the specified portion of the mismatch history database will be marked invalid.

User action:

N/A

Notes

N/A

Examples

Example 1

A request is made to clear MFC event 23 from the mismatch history database, but no such event exists.

```
> CLREVENT MFC 23

Event 23 does not exist in the MFC database.

>
```

Example 2

A request is made to clear FLT event 3 from the mismatch history database. The sequence number is a valid event in the database.

```
> CLREVENT FLT 3

Event 3 has been cleared from the FLT database.

>
```

Example 3

A request is made to clear all events in the FLT portion of the mismatch history database.

```
> CLREVENT FLT ALL

All events have been cleared from the FLT database.

>
```

Command name: CLRCARD

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

NONRES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command invalidates all mismatch history database information pertaining to a particular circuit pack.

Warning

WARNING - Execution of this command will cause a portion of the mismatch history database to be cleared. This may affect the proper isolation and reporting of faults by the mismatch handler. This command should be executed only within a lab environment for testing of the mismatch history database.

Command syntax

```
CLRCARD - Clear mismatch history for a specific circuit pack
Parameters:  <shelf>    {0 TO 1}
             <slot>     {1 TO 38}
             <side>     { FRNT,
                          BACK }
```

Parameter definitions

Table 4-90 CLRCARD Parameter Definitions

PARAMETER	VALUE	DEFINITION
<shelf>	{ 0 TO 1 }	Numeric, Mandatory
<slot>	{ 1 TO 38 }	Numeric, Mandatory
<side>	{ FRNT, BACK }	Variable, Mandatory

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
 Could not uprotect DS
 Event <seq_num> could not be cleared from the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is allocated from PROTECTED memory. If the access protection for this memory could not be disabled in order to make the update, this response will be generated. This is usually due to an image dump in progress.

System action:

N/A

User action:
Correct the root cause of the failure to unprotect data store (usually due to an image dump in progress), and enter the command again.

Response 3

```
 All mismatch history database events which implicate the following
 card have been cleared.

 Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
<site><flr><rpos><bay>  <shf><desc>       <slot> <pec> <side>
```

Explanation:

This response confirms that the mismatch history database information for the specified card has been cleared.

System action:

All relevant mismatch history data, in both the MFC and FLT portions of the database, are marked invalid.

User action:

N/A

Notes

N/A

Examples

Example 1

Clearing mismatch history database for the CPU circuit pack on plane 0.

```
> CLRCARD 0 19 FRNT

All mismatch history database events which implicate the following
card have been deleted.

Site  Flr RPos  Bay_id  Shf Description   Slot    EqPEC
HOST  00  A00   DPCC 0  18  CM 0:0:0       19   9X13BC FRNT

>
```

Command name: ADDEVENT

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

NONRES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command will add an entry to the mismatch history database, just as if a real mismatch occurred. It should be used only for testing of the mismatch history database.
This command will create a new valid event in the specified database, possibly overwriting an old entry if the database table is full. Only the common data is accepted by this command. Fault assignments for individual circuit packs must be entered subsequently via the ADDFLT command.

Warning

WARNING - Execution of this command will alter the contents of the mismatch history database. This may affect the proper isolation and reporting of faults by the mismatch handler. This command should be executed only within a lab environment for testing of the mismatch history database.

Command syntax

```
ADDEVENT - Add an event to the mismatch history database.
Parameters:   <year>            {76 TO 2039}
              <month>           {0 TO 12}
              <day>             {0 TO 31}
              <hour>            {0 TO 23}
              <minute>          {0 TO 59}
              <active_before>   {0 TO 1}
              <active_after>    {0 TO 1}
              <result>          { .... }
              <condition>       { .... }
              <which_db>        { MFC,
                                  FLT }
              <seq_num>         {0 TO 32767}
```

Parameter definitions

Table 4-91 ADDEVENT Parameter Definitions

PARAMETER	VALUE	DEFINITION
<year>	{ 76 TO 2039 }	Numeric, Mandatory
<month>	{ 0 TO 12 }	Numeric, Mandatory
<day>	{ 0 TO 31 }	Numeric, Mandatory
<hour>	{ 0 TO 23 }	Numeric, Mandatory
<minute>	{ 0 TO 59 }	Numeric, Mandatory
<active_before>	{ 0 TO 1 }	Numeric, Mandatory
<active_after>	{ 0 TO 1 }	Numeric, Mandatory

Table 4-91 ADDEVENT Parameter Definitions

PARAMETER	VALUE	DEFINITION
<result>	{ MMR_BAD_SHARED_STORE, MMR_FW_MAZE_FAILED, MMR_CPU_TEST_FAILED, MMR_PORT_FAULT, MMR_MATCHING_BROKEN, MMR_FIR_BITS_INACTIVE, MMR_FIR_BITS_ACTIVE, MMR_CORR_MEM_ERR, MMR_UNCORR_MEM_ERR, MMR_PARITY_ERR, MMR_CACHE_ERR, MMR_DS_DIFFERENT, MMR_PS_DIFFERENT, MMR_INTERRUPTS_DIFFERENT, MMR_AD_REGS_DIFFER, MMR_DRAM_FAULT, MMR_SRAM_FAULT, MMR_CACHE_STORE_FAULT, MMR_NO_FAULT_FOUND, MMR_PBUS_MISMATCH, MMR_CM_EXTENSION_BUS_FAULT. }	Variable, Mandatory
<condition>	{ MMC_FULLY_HANDLED, MMC_SYNC_TRANSITION, MMC_DURING_RESTART, MMC_FAILED_HANDSHAKE, MMC_COULD_NOT_RESYNC, MMC_DATA_COPY_FAIL, MMC_HOURLY_THRESHOLD_EXCEEDED, MMC_BACKLOG_THRESHOLD_EXCEEDED, MMC_CORR_MEM_FLT_THRESHOLD_EXCEEDED, MMC_TEST_REASON, MMC_DURING_MM_RECOVERY, MMC_BOTH_CPUS_ACTIVE, MMC_CANT_GO_INACTIVE, MMC_MTC_SPACE_ADDRESS, MMC_DCACHE_ADDRESS, MMC_FLT_SPARE_ADDRESS, MMC_ADDR_RANGE_UNKNOWN }	Variable, Mandatory
<which_db>	{ MFC, FLT }	Variable, Mandatory
<seq_num>	{ 0 TO 32767 }	Numeric, Mandatory

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
Could not uprotect DS
Event <seq_num> could not be cleared from the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is allocated from PROTECTED memory. If the access protection for this memory could not be disabled in order to make the update, this response will be generated. This is usually due to an image dump in progress.

System action:

N/A

User action:

Correct the root cause of the failure to unprotect data store (usually due to an image dump in progress), and enter the command again.

Response 3

```
Aborted. Event <seq_num> already exists in the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60)

System action:

No changes are made to the mismatch history database.

User action:

Use the PRTHIST command to see which events have already been recorded in the database, and re-enter the command with the appropriate parameters.

Response 4

```
Event <seq_num> has been added to the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60)

System action:

A new valid tuple is created in the appropriate portion of the mismatch history database.

User action:

N/A

Notes

N/A

Examples

Example 1

Add a new FLT mismatch, simulating a mismatch with sequence number 7, occurring at 8:30 am on April 20, 1995, with CPU 0 active prior to the mismatch, CPU 1 active after the mismatch, with the result of “Processor Registers Differed” and condition of “Handled Normally”

```
> ADDEVENT 1995 4 20 8 30 0 1 MMAR_AD_REGS_DIFFER MMAC_HANDLED_NORMALLY FLT 7

Event 7 has been added to the FLT database.
```

Example 2

Attempt to add a new simulated MFC mismatch at midnight, January 1 1995 with CPU 1 active prior to and following the mismatch, but an event with that sequence number already exists in the MFC database.

```
> ADDEVENT 95 1 1 0 0 1 1 MMAR_CORR_MEM_FLT MMAC_HANDLED_NORMALLY MFC 23

Aborted. Event 23 already exists in the MFC database.
```

Command name: ADDFLT

Command type

NON-MENU

Command target

SUPERNODE (68K and BRISC)

Command availability

NONRES

Command description

This command is not applicable to Series 70 BRISC platforms.
This command will add fault information pertaining to a single circuit pack or paddleboard for a single event in either the FLT or MFC portions of the mismatch history database. The event must already exist in the database (either due to a normal mismatch or via the ADDEVENT command), and any existing fault assignment to the specified card is overwritten.

Warning

WARNING - Execution of this command will alter the contents of the mismatch history database. This may affect the proper isolation and reporting of faults by the mismatch handler. This command should be executed only within a lab environment for testing of the mismatch history database.

Command syntax

```
ADDFLT - Add fault assignment to a particular card for an existing
         mismatch history database event.
Parameters:   <which_db>  { MFC   <seq_num>   {0 TO 32767}
                                  <shelf>     {0 TO 1}
                                  <slot>      {1 TO 38}
                                  <side>      { FRNT,
                                                BACK }
                                  <mod>       {0 TO 2}
                                  <ecc_bits>  8{#0 TO #F}
                                  <data_bits> 8{#0 TO #F}

                            FLT   <seq_num>   {0 TO 32767}
                                  <shelf>     {0 TO 1}
                                  <slot>      {1 TO 38}
                                  <side>      { FRNT,
                                                BACK }
                                  <flt_prob>{NO_FAULT,
                                             IMPROBABLE_FAULT,
                                             PROBABLE_FAULT,
                                             CERTAIN_FAULT } }
```

Parameter definitions

Table 4-92 ADDFLT Parameter Definitions

PARAMETER	VALUE	DEFINITION
<seq_num>	{ 0 TO 32767 }	Numeric, Mandatory
<shelf>	{ 0 TO 1 }	Numeric, Mandatory
<slot>	{ 1 TO 38 }	Numeric, Mandatory

Table 4-92 ADDFLT Parameter Definitions

PARAMETER	VALUE	DEFINITION
<side>	{ FRNT, BACK }	Variable, Mandatory
<mod>	{ 0 TO 2}	Numeric, Mandatory
<ecc_bits>	{ #00000000 TO #FFFFFFFF }	Numeric, Mandatory
<data_bits>	{ #00000000 TO #FFFFFFFF }	Numeric, Mandatory
<flt_prob>	{ NO_FAULT, IMPROBABLE_FAULT, PROBABLE_FAULT CERTAIN_FAULT }	Variable, Mandatory

Responses

Response 1

```
This command is not supported on Series 70.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is not supported on Series 70. This command has no effect.

System action:

N/A

User action:

N/A

Response 2

```
Could not uprotect DS
Event <seq_num> could not be cleared from the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 70).

The mismatch history database is allocated from PROTECTED memory. If the access protection for this memory could not be disabled in order to make the update, this response will be generated. This is usually due to an image dump in progress.

System action:

N/A

User action:

Correct the root cause of the failure to unprotect data store (usually due to an image dump in progress), and enter the command again.

Response 3

```
Event <seq_num> does not exist in the <which_db> database.
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed when the specified event sequence number does not correspond to a valid entry in the FLT portion of the mismatch history database. Note that this command does not apply to MFC mismatches, since each MFC necessarily isolates a single card, and variable fault probabilities are not assigned.

System action:

N/A

User action:

Use the PRTHIST command to display the contents of the FLT portion of the mismatch history database. Create a new entry in the FLT database via the ADDHIST command then re-enter the ADDFLT command, or re-enter the ADDFLT command with the correct parameter values.

Response 4

```
The following fault assignment has been added to event <seq_num>
  of the <which_db> history database.

  Fault: <flt_prob>
  Shelf: <shelf>   Slot: <slot>   Side: <side>
```

Explanation:

This response is visible on SUPERNODE targets (Series 20 through 60).

This response is displayed when the specified event sequence number does correspond to a valid entry in the FLT portion of the mismatch history database.

System action:

The specified fault probability level will be assigned to the appropriate event in the FLT portion of the mismatch history database.

User action:

N/A

Notes

N/A

Examples

Example 1

Attempt to add fault information to an invalid FLT event.

```
> ADDFLT FLT 17 0 0 19 CERTAIN_FAULT

Event 17 does not exist in the FLT database.
```

Example 2

Assign PROBABLE_FAULT to the CPU circuit pack on plane 0 for FLT mismatch event number 3.

```
> ADDFLT FLT 3 0 19 FRNT PROBABLE_FAULT

The following fault assignment has been added to event 3
  of the FLT history database.

  Fault: PROBABLE_FAULT
  Shelf: 0  Slot: 19  Side: FRNT
```

Example 3

For MFC event 23, assign memory card 3 on plane 0 as the faulty circuit pack.

```
> ADDFLT MFC 23 0 14 FRNT

The following fault assignment has been added to event 23
  of the MFC history database.

  Fault: Correctable Memory Fault
  Shelf: 0  Slot: 14  Side: FRNT
```

Alarms

Alarm name: MMnoSy

Conditions required to raise the alarm

This alarm is raised when the switch is left out-of-sync once a mismatch threshold is exceeded. This is a major alarm under the CM alarm banner.

Duration of the alarm

This alarm will remain until it is cleared manually as per NTP's.

Clearing the Alarm

This alarm can only be cleared via the manual command "CLRALARM". It should be cleared only after all mismatch logs have been analyzed and all appropriate manual recovery actions taken.

Alarm name: MemCor

Conditions required to raise the alarm

This alarm is raised when the number of 'Memory Fault, Correctable' events has exceeded a threshold for a particular memory module, memory card or for a single plane of the CM. This is a major alarm under the CM alarm banner.

Duration of Alarm

This alarm will remain until the manual command to clear it is executed

Clearing the Alarm

This alarm will be cleared manually via the "CLRALARM" command. It should be cleared only after all MFC logs have been analyzed, and all appropriate manual recovery actions taken.

Alarm name: MMSync

Conditions required to raise the alarm

This alarm is raised when the number of fault mismatches has exceeded a threshold but the mismatch recovery process was able to successfully put the CM back in sync. This is a major alarm under the CM alarm banner.

Duration of Alarm

This alarm will remain until the manual command to clear it is executed

Clearing the Alarm

This alarm will be cleared manually via the "CLRALARM" command. It should be cleared only after all appropriate MM logs have been analyzed, and all appropriate manual recovery actions taken.

AR1444mm.aa06

Directories

Table of New/Modified Directories

Table 4-93 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SOCDIR	CHANGED		SUPERNODE	RES

Accessing directory: SOCDIR

To access

Changes in this release: The message "Couldn't allocate mailboxes...SOC not started" is removed, since it is no longer used.

Also, a new message might be seen when SOC is started up: "The previous invocation of SOC terminated abnormally in the midst of a <operation type> operation on option <order code>. The option is in state <state>."

From the CI environment, enter:

>SOC

Possible responses if SOC cannot start up are:

User count exceeded; SOC in use by <userid>

SOC is already running

Couldn't allocate SOC command directory...SOC not started

SOC cannot be used while a dump is in progress. SOC not started.

Cannot run SOC on active side while dump/restore in progress

The first message indicates that SOC is already in use. Only one SOC session is allowed at a time. If you are certain that SOC is not running, you can reset the usage counter using the TOOLSUP tool manager. Type *TOOLSUP* at the CI, then *RESET SOC*. Only do this if you know that SOC is not running. The second message is produced if this CI session already has SOC running. The third will appear if there is a resource problem with the office, and SOC cannot allocate its directory. The last two indicate that an image dump or dump/restore is in progress, and SOC cannot be used.

SOC may also produce a warning message indicating that SOC terminated abnormally the last time it was executed. The message is:

The previous invocation of SOC terminated abnormally in the midst of a <operation type> operation on option <order code>. The option is in state <state>.

The <operation type> is an indication of what SOC was doing when it terminated. This will typically be a “transition” (i.e. a state transition). The other possibility is a “reset” operation (meaning that some software failed a state transition, and did not recover cleanly). The <order code> identifies the option; <state> indicates what state the option is currently in. This will be a transient state (IDLE-to-ON or ON-to-IDLE). User action is usually to change the option’s state back to IDLE or ON, depending on where it was coming from. Also, contact NT support.

To return to CI

To return to the CI environment, enter:
>QUIT

Commands

Table of New/Modified Commands

Table 4-94 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ASSIGN	CHANGED		SOCDIR

Command name: ASSIGN

Changes to ASSIGN command in this release:

Syntax of message “Illegal limit. Must be in range 0-999999 or MONITORED.” changed to “Illegal limit (must be 0 <= limit <= 999999 or MONITORED)”

Syntax of message: “Cannot set limit to zero because option state is not IDLE.” changed to “Cannot set limit to 0 when state is not IDLE”.

The response “Done.” to an ASSIGN STATE command has a possible NOTE added to it: “ (no action required; option was already ON|IDLE)”. This note appears if the option was already in the target state.

Command type:

NON-MENU

Command target:

SUPERNODE, BRISC

Command availability:

RES

Command description

This command allows the user to assign a new state or right-to-use to a state option, a new state to a combo option, or a usage limit or warning threshold to a usage or combo option. Possible states to assign to a state or combo option are *IDLE* and *ON*. *IDLE* indicates that the option is present but non-functional (may be datafilled); *ON* indicates that the option functions normally.
Assigning a right-to-use to a state option or group of options, via a file of key codes (or directly via the command line) grants the user permission to change the state of the option(s) (e.g. turn it on or idle).
Assigning a limit to a usage based or combo option (via file or command line) changes the maximum quantity of the corresponding resource that SOC will allow the switch to use. If the new limit is non-zero, the RTU of this option will also be set to YES (and setting limit to zero sets RTU to NO, which implies that for combo options, the state must be IDLE before the limit can be set to zero). Note that limits may be hard (enforced by SOC) or soft (recorded by SOC but not enforced).
Assigning a warning threshold to a usage option determines when SOC will warn the operating company that usage is approaching the limit.
If key codes are assigned via a file, SOC will expect the file to be named "<*CLLI*>$SCF" (where <*CLLI*> is the office CLLI from the OFFICE_CLLI_NAME tuple of the OFCENG table) and to be located on one of the volumes listed in the Patch Administration and Downloading Device (PADNDEV) table or SFDEV. Alternatively, the user may supply a filename and device on the command line. Note that more than one of the responses listed below may be seen for a single *ASSIGN KEYS FROM <file>* command, since it may have to report problems on several lines of the file. For most errors (non-filesystem-related), SOC will continue to process the remainder of the file, but will not delete the file on completion.

Warning

If assigning STATE to *IDLE* from *ON*, loss of the service provided by the option will result. Normally, this is precisely the desired effect of the command. The option will warn the user (via SOC) if it is still in use (e.g. still datafilled on some lines), and give the user the opportunity to confirm the change.
SOC will not accept percentage warning thresholds other than 100% for usage options with a "monitored" (unlimited) limit.
SOC considers absolute warning thresholds greater than the usage limit to be peculiar, although not quite an error. Attempts to set it higher than the limit will be accepted with a warning that this threshold cannot be reached with this limit (and is therefore of questionable value); if the limit is reset to a value lower than the threshold, SOC will again warn that the threshold is now unreachable.
SOC also warns about setting limits lower than the current usage. It also logs this situation in periodic audits. In this situation, the option's resources may be deallocated (to reduce current usage to below the limit) but more resources may not be allocated.

Command syntax

>ASSIGN STATE <state> TO <order code>

>ASSIGN RTU <key code> TO <order code>

>ASSIGN LIMIT <limit> <key code> TO <order code>

>ASSIGN THRESHOLD <threshold> [<thresh_type>] TO <order code>

>ASSIGN KEYS FROM <filename> [<device>]

>ASSIGN KEYS FROM FILE

Parameter definitions

Table 4-95 ASSIGN Parameter Definitions

PARAMETER	VALUE	DEFINITION
STATE	N/A	a value of “STATE” indicates that this is a request to change the state of an option.
RTU	N/A	a value of “RTU” indicates that this is a request to grant the telco the right to change the state of the named option, i.e. grant the right to use the option
LIMIT	N/A	a value of “LIMIT” indicates that this is a request to change the usage limit of the named option (limit may be hard or soft, or MONITORED)
THRESHOLD	N/A	a value of “THRESHOLD” indicates that this is a request to change the warning threshold for the named option.
KEYS	N/A	a value of “KEYS” indicates that this is a request to read RTU granting, RTU removal, and/or limit key codes from a file.
FILE	N/A	indicates that key codes are to be read from a file with the default filename <CLLI>$SCF and default device (listed in table PADNDEV)
<state>	ON IDLE	the state to set the option to
<order code>	alphanumeric (8 characters)	an NT-defined order code, used to identify options
<key code>	alphanumeric (20 characters)	a key code supplied by NT which grants or removes the right to change the SOC state of an option, or allows a new usage limit to be set
<limit>	numeric between 0 and 999999, or the keyword MONITORED	the value of the new usage limit for the named option. If the limit is set to MONITORED, or is soft, SOC will not restrict usage.

Table 4-95 ASSIGN Parameter Definitions

PARAMETER	VALUE	DEFINITION
<threshold>	either a (up to) 3 digit number for a "percentage" threshold, or a (up to) 6 digit number for an "absolute" threshold	the value of the warning threshold for usage options. If <thresh_type> is PERCENT, this must be a number between 0 and 100, indicating the percentage of the limit at which to warn the operating company that usage is nearing the limit. If the limit is MONITORED, only 100 will be accepted as a percentage threshold. If <thresh_type> is ABSOLUTE, this must be a number between 0 and 999999, indicating that the warning should be produced when the current usage exceeds this value.
<thresh_type>	PERCENT ABSOLUTE	indicates whether the <threshold> should be interpreted as a percentage or an absolute number. If <thresh_type> is not specified, ABSOLUTE is assumed.
<filename>	alphanumeric	the filename of an NT-supplied file containing order codes and key codes; SOC will read the file and apply the key codes to their corresponding order codes. The format of this file is described in the Notes section.Please refer to " Notes" on page 306. The *FILE* parameter discussed above tells SOC to use a default filename and device.
<device>	alphanumeric	device on which to look for the named file. SOC uses table PADNDEV to find default volumes if this argument is not supplied.

Responses

Response: Done. [note]

Explanation:

The *ASSIGN* command was completed correctly. If this was a state change, the option changed state successfully. If it was a right-to-use or limit application, it was processed and accepted. If it was a read from a file of key codes, all key codes were applied successfully and the file was deleted. If it was a threshold change, the new threshold has been recorded.

If this operation was a state change, and the option was already in the target state, the following [note] will be added: " (no action required; option was already ON|IDLE)". This message simply informs the user that nothing has actually changed.
System Action:

none

User Action:

none

Response: Unknown order code <code> [in <file> at line <line>]

Explanation:

SOC does not have any record of the named option. <code> is the order code typed by the user or read from the file. If it is read from a file, the filename <file> and line number <line> are given as well.

System Action:

Aborts the command.

User Action:

Check the order code for validity. Retry if it was a typo; check with NT if it ought to have worked.

Response: Illegal order code <code> [in <file> at line <line>]

Explanation:

The order code is not a syntactically legal order code (i.e. it is not 8 alphanumeric characters). <code> is the order code typed by the user or read from the file. If it is read from a file, the filename <file> and line number <line> are given as well.

System Action:

Aborts the command.

User Action:

Check the order code for validity. Retry if it was a typo; check with NT if it ought to have worked.

Response: Syntax error [in <file> at line <line>] [<command_syntax>]

Explanation:

SOC was unable to make sense of the command. If the command was read from a file, the filename <file> and line number <line> are given. If it was not from a file, the command syntax is displayed.

System Action:

Aborts the command.

User Action:

Retry, with appropriate syntax.

> *Most syntax errors will be caught by the CI, and the user will be prompted for correct input. SOC uses the standard CI command responses for those errors.*

Response: <impact_stmt> Confirm change of option <order code> to state <state> by entering the textual option name:

Explanation:

As a check against mistakes, the confirmation for disabling functionality (i.e. changing an option's state from ON to IDLE) is to enter the option's textual name. The <order code> is the option's order code, as typed by the user in the command. If the user correctly enters the option name, the command will be executed. The system may display some <impact_stmt> messages to the user before asking for this confirmation; these messages will relate to the consequences of this action. An example might be a message informing the user that several customer lines still have this option datafilled, so turning it to IDLE will deprive them of a service they may still be using.

System Action:

Waits for the user to type the name of the option.

User action:

Type the textual option name (followed by the return key). If it is typed correctly, SOC will proceed with the command. If a null string is typed (user just hit return) SOC will abort the command. If an incorrect string is typed, SOC will offer the user another chance. As before, if a null string is typed, the command will be aborted; if the correct name is typed, the command will be completed; if an incorrect name is typed, the user gets another chance. The user gets three chances. After the third chance, the command is aborted and the event (three failed attempts) is logged (a SOC501 log).

Response: Pending option <order code> created [in <file> at line <line>]

Explanation:

The user entered an ASSIGN RTU, ASSIGN LIMIT or ASSIGN KEYS FROM <file> command for an unknown order code, with correct key code for that order code. SOC assumes this is a new "Pending" option. If the order code and key code were read from a file, the filename and line number are provided.

A pending option is an option with no features, but whose right-to-use can be enabled, or limit set. Their purpose is to allow operating companies to set the RTU or limit of an option which does not exist in the current software load, but which will exist in the next load. The option is created and its right to use is granted or limit is set. Then, during the software application, the new option is ready to go without the need for manual intervention during the application (an RTU of YES on a pending option implies that the real option on the new software load should be ON, if the option is state or combo). This feature is particularly intended for state-oriented functionality which exists on the current load but is not controlled via SOC, but which is under SOC control in the new load. If it were not turned on during the application, loss of service could result.

System Action:

Creates the pending option and sets its right-to-use flag to true or its limit to the specified value.

User Action:

none.

Response: Incorrect key code for option <order code> [in <file> at line <line>] [but right-to-use was already set, so state changes are allowed]

Explanation:

The user tried to apply a right-to-use key code to an option, but the key code is not correct. <order code> is the order code typed by the user. If the option and key code were read from a file, the <file> and <line> will be given. If it is state-only, and the right-to-use was already set, the "but right-to-use was already set..." clause will be displayed.

System Action:

No change to database.

User Action:

Check that the key code and order code were typed correctly, if this was entered from the command line. If they were, contact NT for a corrected key code. Also ensure that the CLLI for this office agrees with what NT thinks it is. If it was read from a file, obtain a corrected file from NT.

Response: Cannot find file <filename> on device <device>

Explanation:

The user tried to read a file of key codes, but the file could not be found. This message could be generated if the user supplies a filename (and there isn't one) or if the default filename isn't right. <filename> is the filename it was looking for; <device> is the device which was searched.

System Action:

Aborts the command.

User Action:

Ensure that the file is named correctly, and is on the appropriate volume (SOC will search the volumes listed in PADNDEV and SFDEV by default).

Response: Cannot find file <filename> on any device in table PADNDEV.

Explanation:

The user tried to read a file of key codes, but the file could not be found. This message could be generated if the user supplies a filename (and there isn't one) or if the default filename isn't right. <filename> is the filename it was looking for. If the device is given as ALL, either from the command line or from the default in table SOCVAR, all devices listed in table PADNDEV will be searched. If the file is not found on any of them, this message is produced.

System Action:

Aborts the command.

User Action:

Ensure that the file is named correctly, and is on the appropriate volume (SOC will search the volumes listed in PADNDEV and SFDEV by default).

Response: Incorrect CLLI in <filename> at line 1

Explanation:

SOC tried to read a file of key codes, and found that the CLLI on the first line of the file does not match the CLLI for this office, as recorded in the OFCENG table. <filename> is the name of the file it was processing.

System Action:

Halts processing; does not delete the file.

User Action:

Get a corrected key code file from NT, or check with NT to find out what CLLI they think your office has. Note that it will not, in general, be sufficient to edit the file, inserting the CLLI for this office. This action will not work because the key codes in the file have the CLLI which was at the beginning of the file encoded in them, and they will all fail if applied to an office with a different CLLI.

Response: Unknown tag in <filename> at line <linenum>

Explanation:

SOC was processing a file of key codes, and found an entry with an incorrect tag. The tag is a character string at the beginning of a line: a “+” if this key code grants the right-to-use, or a “-” if it revokes it, a number (optionally followed by an “S”) to set a usage limit, or the word “MONITORED” to make the option monitored. <order code> is the order code of the incorrect entry; <filename> is the name of the file it was processing; <linenum> is the line number of the incorrect key code.

System Action:

Continues processing subsequent entries in the file. Does not alter the option with the incorrect tag. The file will not be deleted when processing is done.

User Action:

Get a corrected file from NT, or edit the file, replacing the offending character(s) with a correct tag. That might or might not help. The key code has the tag encoded in it, so if it was encoded with the incorrect characters, whatever they were, it will no longer work.

Response: Done. <n> errors detected. File not erased.

Explanation:

SOC was processing a right-to-use key code file, and encountered errors while doing so. This summary line is produced when SOC has processed the file.

System Action: SOC has completed applying the key codes in the file (all that worked, at least), but has not erased the file (so the user has a chance to look at the file and see what the problem is).
User Action: Check the file for obvious errors (based on the messages SOC produced while processing the file). If the fix is not obvious, contact NT support.

Response: Right-To-Use not granted

Explanation:

The user has tried to change the state of an option, but the named option is not permitted to change state, because the enabling key code has not been applied.

System Action:

Does not perform the command.

User Action:

Contact NT to arrange to buy this option. NT will provide a key code.

Response: <validation errors> Transition refused, because of validation errors

Explanation:

SOC wouldn't perform the requested state transition because all or part of the option would fail to change state successfully. The <validation errors> are a brief summary of what is wrong, and how to fix it to enable the change to proceed.

System Action:

Aborts the command, after displaying the needed changes.

User Action:

Make the appropriate changes, and retry.

Response: <failure reasons> Transition failed. Option is in state <state>

Explanation:

An attempt was made to change the state of an option, but an error occurred in the attempt. <failure reasons> is a description of what went wrong and how to fix it; <state> is the current state. The current state may be the state the option started in, or may be a transient state between the initial and target states. If the transition fails part way along, SOC will not try to recover, but will simply display what's wrong. When that has been fixed, the user may attempt another state transition from the transient state to either the original target state or the previous state.

System Action:

Halt the command, inform the user of the current state.

User Action:

Correct the problem, if it is obvious from the diagnostics, and retry. Otherwise contact NT.

Response: File processing error: couldn't open <filename>

Explanation:

The user tried to read a file of right-to-use key codes, but the file could not be opened. This message could be generated if the file is already opened for writing by another process, or if there is a filesystem failure. <filename> is the filename it found (but couldn't open).

System Action:

Aborts the command.

User Action:

Ensure that the file is not in use by another application, and that the filesystem is sane.

Response: File processing error: couldn't read <file> [at line <line>]

Explanation:

In reading a file of right-to-use key codes, SOC encountered an error trying to read a line. Either the file is incorrectly formatted, or the physical device has a

problem. If SOC has read at least one line successfully, <line> will indicate the line number at which the problem occurred.

System Action:

Halts processing; does not delete the file.

User Action:

Get a corrected key code file from NT, or check the physical device for problems.

Response: File processing error: couldn't close <file>

Explanation:

SOC processed a key code file, but was unable to close it for some reason. <file> is the name of the file which could not be closed.

System Action:

Exits, without trying to delete the file.

User Action:

None. Rights-to-use have been applied.

Response: File processing error: couldn't erase <file> (but key codes were applied successfully)

Explanation:

SOC processed a key code file correctly, but was unable to delete it for some reason (normally it will delete a key code file after successfully processing it). <file> is the name of the file which could not be deleted.

System Action:

Exits, with the rights-to-use granted but the file undeleted.

User Action:

Delete the file, if possible.

Response: Unable to complete request due to memory allocation failure

Explanation:

SOC was not able to allocate temporary data structures to carry out the computations needed for this command. If an office is very short of memory, this message might be produced.

System Action:

Aborts the command.

User Action:

none.

Response: <description of dependency errors> Transition refused due to dependency errors.

Explanation:

SOC refuses to perform the state transition, because needed options are not turned on, mutually exclusive options are turned on, or options which use this one are still on (if turning the option IDLE). The description of dependency errors will be one or more instances of the following line:

option <opt_id> is <state>, must be <needed state> (<relationship>)

<opt_id> is the offending option order code; <state> is its current state, <needed state> is the state it must be in for the requested transition to be allowed; <relationship> is the type of relationship: USES (it uses the option in question), PRECLUDES (it is mutually exclusive with it), NEEDED (it is used by the option in question)

System Action:

Aborts the command.

User Action:

Turn ON or IDLE the appropriate options, as described by the messages, then turn this one to the desired state.

Response: <description of dependency errors> Transition refused due to database inconsistencies (run dbaudit).

Explanation:

The system found one or more database inconsistencies (such as a cycle in the dependency structure) which made it impossible to check the dependencies before changing the option's state. SOC will not allow the state change until the dependencies can be checked.

System Action:

Aborts the command.

User Action:

Run the DBAUDIT command, and/or contact NT Support to fix errors in SOC's database

Response: Not a state or combo option.

Explanation:

The user is trying to set the state of a usage only option.

System Action:

Aborts the command.

User Action:

Find the correct order code for the option you want to change, or contact NT if you have the right order code.

Response: Not a state option.

Explanation:

The user is trying to set the RTU of a usage or combo option. RTU of these options is controlled by the usage limit: a non-zero limit implies that RTU is YES; a zero limit implies that RTU is NO.

System Action:

Aborts the command.

User Action:

Find the correct order code for the option you want to apply the RTU to, and retry. If you have the right order code, contact NT for assistance.

Response: Cannot change state of tracked or pending options.

Explanation:

The user is trying to set the state of a tracked or pending option. These options do not have states, since they do not control any actual code in the switch.

System Action:

Aborts the command.

User Action:

If you have typed the order code wrong, try again. If it is the right order code, remember that for tracked or pending options, the limit or RTU on the old side of an ONP determine the state on the new side, so maybe you should be changing the RTU or limit instead.

Response: Not a usage or combo option.

Explanation:

The user has tried to set the limit or threshold of a state-only option.

System Action:

Aborts the command.

User Action:

Ensure you have the right order code, or contact NT for help.

Response: Illegal limit (must be 0 <= limit <= 999999 or MONITORED).

Explanation:

The user has tried to set an option's limit to an illegal size.

System Action:

Aborts the command.

User Action:

Try again, with a limit in the range of 0-999999, or the keyword MONITORED.

Response: Cannot set limit to 0 when state is not IDLE

Explanation:

The user is trying to set the limit of a combo option to zero. Since combo options' RTU is determined by their limit, and RTU cannot be NO if the state is ON, the state must be IDLE before the limit can be set to zero.

System Action:

Aborts the command.

User Action:

Set the option's state to IDLE, then try again.

Response: Incorrect key code for option <ordercode> and limit <limit>

Explanation:

The key code the user supplied for setting an option's usage limit does not match the order code, limit or office CLLI.

System Action:

Aborts the command.

User Action:

Ensure you have typed the password correctly. If not, try again. Otherwise, obtain a correct password from NT, and try again.

Response: Illegal threshold. Must be 0-100% or 0-999999 (in <units>) for option <ordercode>.

Explanation:

The user is trying to set the threshold for an option, but the given threshold is not legal. Thresholds must be in the range 0-100 if the PERCENT keyword is supplied, or in the range 0-999999 if ABSOLUTE is supplied (absolute is the default if neither is supplied).

System Action:

Aborts the command.

User Action:

Try again, with a legal threshold.

Response: Illegal threshold. Must be 100% or 0-999999 (in <units>) for option <ordercode> (limit is MONITORED).

Explanation:

The user is trying to set the threshold for an option with a MONITORED limit. The only legal thresholds when the limit is MONITORED are 100% or 0-999999.

System Action:

Aborts the command.

User Action:

Try again with a legal threshold.

Response: Done. Soft|Hard limit set to <nnnnnn> for option <ordercode>. <warnings>

Explanation:

The user set a new usage limit of <nnnnnn> for option <ordercode>. It will be specified as either Soft or Hard. The <warnings> will be 0 or more of the following:

Warning: new limit is below the current usage count for this option.

Warning: new limit is below the warning threshold for this option.

Warning: <feature-supplied warning>

The <*feature-supplied warning*> is some text supplied by the feature, if it thinks the new limit is peculiar in some way. For example, a limit of 525 might be odd if the resource can only be allocated in blocks of 50.

System Action:

Updates its database to reflect the new limit, and informs the feature of the new limit.

User Action:

None.

Response: Done. Option <ordercode> set to MONITORED. <warnings>

Explanation:

The user has set option <ordercode> to be MONITORED, meaning that usage will be counted but not restricted by SOC (naturally, it may still be restricted by physical limitations of the switch). The <warnings> will be 0 or more of the following:

Warning: usage warning threshold has been set to 100%

Warning: <feature-supplied warning>

The first will be produced if the warning threshold was a percentage, but not 100%. Any percentage other than 100% is meaningless with a MONITORED limit, since there is no upper bound against which to calculate the percentage. The second is a feature-supplied message indicating a reason why a MONITORED limit is inappropriate for this option.

System Action:

Updates its database to reflect the new limit, and informs the feature of the new limit.

User Action:

None.

Response: Done. Threshold for option <ordercode> set to <nnnnnn> %|<units>. <warnings>

Explanation:

The user has set the usage warning threshold for option <ordercode>. If it is a percentage threshold, it will be “nnn%”. If it is an absolute threshold, it will be “nnnnnn <units>”, where <units” is the units for this option. <warnings> will be zero or more of the following:

Warning: new threshold is unreachable because it is above this option’s hard usage limit.

Warning: this option’s current usage already exceeds this new threshold.

System Action:

Updates the database to reflect the new threshold.

User Action:

None.

Notes

The format for key code files is:

- the first line of the file is the CLLI of the office, as defined in the OFCENG table (no leading or trailing spaces).
- each succeeding line has the form:

  x yyyyyyyy zzzzzzzzzzzzzzzzzzzz

  or

  aaaaaa[S] yyyyyyyy zzzzzzzzzzzzzzzzzzzz

where the "*x*" is either "+", indicating that this line grants a right-to-use, or "-", indicating that this line removes a right-to-use, "aaaaaa" is a (max) 6 digit number (optionally followed by "S" if the limit is soft) or the word "MONITORED", giving a new usage limit, "*yyyyyyyy*" is the eight-character order code for an option, and "*zzzzzzzzzzzzzzzzzzzz*" is a twenty-character key code specific to this type of request (grant, revoke, limit), option and CLLI.

An example of this file is:

```
OTWAONXBDS1
+ OPTCODE1 Q92KJ23A9XCCLQW98137
+ OPTCODE2 A4DB5TYFVNBXCI1247AE
100000 OPTCODE3 U9Q34TW98FSLVN2YPM43
50S OPTCODE4 CLQW9PM45TYFVNB43IVF
```

If the new usage limit is less than an existing absolute warning threshold, SOC will warn of this condition (since it may not make sense to have a warning threshold higher than a usage limit). Also, if the usage limit is set to MONITORED, an existing percentage warning threshold will be set to 100% (since it doesn't make sense to try to calculate a percentage of MONITORED).

If the new usage limit is less than the current usage, SOC will warn the user (and flag it in periodic audits).

There is no difference in the way hard and soft limits are applied, but SOC does not treat them the same. Soft limits are not enforced; they exist to reflect contractual or other (e.g. pre-pay) agreements to certain usage levels, but usage will not be limited to this level.

Examples

In these examples, text typed by the user is in italics, preceded by a ">". Text produced by SOC is italic, but *not* preceded by a ">".

Request is:

>ASSIGN STATE ON TO CTX00001

Response is:

DONE.

Request is:

>ASSIGN STATE IDLE TO CTX00001

Response is:

OPTION CTX00001 IS DATAFILLED ON 21 LINES IN TABLE X. LOSS OF SERVICE WILL RESULT.

CONFIRM CHANGE OF OPTION CTX00001 TO STATE IDLE BY ENTERING THE TEXTUAL OPTION NAME:

>CALL FORWARDING

DONE.

Request is:

>ASSIGN STATE ON TO CTX00001

Response is:

UNKNOWN ORDER CODE CTX00001

Request is:

>ASSIGN RTU KDLAS43895JFKDOWIKCM TO CTX00001
Response is:

DONE.
Request is:

>ASSIGN RTU ABC TO CTX00001
Response is:

INCORRECT KEYCODE FOR OPTION CTX00001
Request is:

>ASSIGN RTU FROM FILE
Response is:

DONE.
Request is:

>ASSIGN RTU FROM FILE
Response is:

CANNOT FIND FILE OTWA0NXBDS1$SCF ON DEVICE SFDEV
Request is:

>ASSIGN RTU FROM FILE
Response is:

UNKNOWN ORDER CODE ASDFASDF IN OTWA0NXBDS1$SCF AT LINE 6
Request is:

>ASSIGN STATE ON TO CTX00001

Response is:

FEATURE1: COULD NOT ALLOCATE MESSAGE POOL.

TRANSITION FAILED. OPTION IS IN STATE IDLE-TO-ON
Request is:

>ASSIGN STATE ON TO OSDA0002
Response is:

NOT A STATE OR COMBO OPTION.
Request is:

>ASSIGN RTU SDFGSDFGSDFGSDFG TO ABS00023
Response is:

NOT A STATE OPTION.
Request is:

>ASSIGN STATE ON TO OSDA0005
Response is:

CANNOT CHANGE STATE OF TRACKED OR PENDING OPTIONS.
Request is:

>ASSIGN LIMIT 1000 SDFGSDFGSDFGSFDGSDFG TO AIN00002

Response is:

NOT A USAGE OR COMBO OPTION.

Request is:

>ASSIGN LIMIT 1000000 ASDFASDFASDFASDFASDF TO OPC00001

Response is:

ILLEGAL LIMIT. MUST BE IN RANGE 0-999999 OR MONITORED.

Request is:

>ASSIGN LIMIT 0 ZEROKEYCODEGOESHEREX TO NSA00042

Response is:

CANNOT SET LIMIT TO ZERO BECAUSE OPTION STATE IS NOT IDLE.

Request is:

>ASSIGN LIMIT 1945 THISISNOTAGOODKEYCOD TO FBI00022

Response is:

INCORRECT KEY CODE FOR OPTION FBI00022 AND LIMIT 1945

Request is:

>ASSIGN THRESHOLD 200 PERCENT TO CIA00013

Response is:

ILLEGAL THRESHOLD. MUST BE 0-100% OR 0-999999 (IN TRKS) FOR OPTION CIA00013.

Request is:

>ASSIGN THRESHOLD 85 PERCENT TO LRB00009

Response is:

ILLEGAL THRESHOLD. MUST BE 100% OR 0-999999 (IN LINES) FOR OPTION LRB00009 (LIMIT IS MONITORED).

Request is:

>ASSIGN LIMIT 1000 WERTWERTWERTWRETWERT TO PDQ00656

Response is:

DONE. HARD LIMIT SET TO 1000 FOR OPTION PDQ00656.

Request is:

>ASSIGN LIMIT MONITORED 23SLDDEK592JKFAAUDKX TO OSDA0007

Response is:

DONE. OPTION OSDA0007 SET TO MONITORED.

Request is:

>ASSIGN THRESHOLD 90 PERCENT TO OSDA0006

Response is:

DONE. THRESHOLD FOR OPTION OSDA0006 SET TO 90%.

WARNING: THIS OPTION'S CURRENT USAGE ALREADY EXCEEDS THIS NEW THRESHOLD.

Alarms

Not Applicable

AR1503mm.ab09

Directories

Table of New/Modified Directories

Table 4-96 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
AINTRACEDIR	CHANGED		M68K	RES

Accessing directory: AINTRACEDIR

To access

AINTRACE

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 4-97 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CLEAR	NEW		AINTRACEDIR
OPEN	NEW		AINTRACEDIR
BACK	NEW		AINTRACEDIR

Command name: CLEAR

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The CLEAR command erases the message buffer contents within the AINTRACE tool.

Warning

None

Command syntax

CLEAR

Parameter definitions

No parameters

Responses

Response 1

Buffer has been cleared

Explanation:

The buffer has been cleared successfully

System action:

None

User action:

None

Response 2

No data has been collected

Explanation:

No data has been collected

System action:

None

User action:

Check terminal selection, then try again

Response 3

Tracing has not been stopped. Enter STOP command.

Explanation:

The buffer has not been cleared, since tracing is not stopped

System action:

None

User action:

Stop tracing by entering STOP command, then try again

Notes

None

Examples

To clear buffer contents:

```
> CLEAR
Buffer has been cleared
```

Command name: OPEN

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The OPEN command allows the user to display the most recent message in the buffer.

If the OPEN command has been entered without either selecting the terminal or before the tracing has been stopped, then appropriate error messages will be displayed to the MAP terminal.

Warning

None

Command syntax

OPEN

Parameter definitions

No parameters

Responses

Response 1

```
Tid: 40 30 Time Stamp: 12:32:40

E4 12 C7 04 00 00 11 00 E8 0A EC 08 CF 00 D5 02
01 02 F2 00
```

Explanation:

Displays the most recent message in the buffer

System action:

None

User action:

None

Response 2

No data has been collected

Explanation:

No data has been collected

System action:

None

User action:

Check terminal selection, then try again

Response 3

Tracing has not been stopped. Enter STOP command.

Explanation:

Can not display the buffer content, since tracing is not stopped

System action:

None

User action:

Stop tracing by entering STOP command, then try again

Notes

None

Examples

To display the most recent message in the buffer:
> OPEN

Command name: BACK

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The BACK command allows the user to step backward and display the messages in the buffer. This command accepts either the step value or ‘ALL’ as the optional parameter. The step value determines the number of messages that will be displayed at a time. The default step value is 1.

If for the first time BACK command is entered before issuing an OPEN command, then the message(s) starting from the most recent message in the buffer gets displayed. If BACK command is again entered, then the previous message(s) will be displayed.
If BACK command with `ALL' as the parameter has been entered after an OPEN command, then the entire messages previous to the most recent message in the buffer will be displayed.
If the BACK command has been entered without either selecting the terminal or before the tracing has been stopped, then appropriate error messages will be displayed to the MAP terminal.

Warning

None

Command syntax

BACK

Parameter definitions

Step value or ‘ALL’ option

Responses

Response 1

```
Tid: 40 30 Time Stamp: 12:32:40

Agent: 6211211     00 0 11 26

E4 12 C7 04 00 00 11 00 E8 0A EC 08 CF 00 D5 02
01 02 F2 00
```

Explanation:

Steps backward and displays the messages specified by the step value or displays the entire captured messages if ‘ALL’option is specified

System action:

None

User action:

None

Response 2

No data has been collected

Explanation:

No data has been collected

System action:

None

User action:

Check terminal selection, then try again

Response 3

Tracing has not been stopped. Enter STOP command.

Explanation:

Can not step backward through the buffer, since tracing is not stopped

System action:

None

User action:

Stop tracing by entering STOP command, then try again

Response 4

```
Tid: 40 30 Time Stamp: 12:32:40

Agent: 6211211     00 0 11 26

E4 12 C7 04 00 00 11 00 E8 0A EC 08 CF 00 D5 02
01 02 F2 00
```

End of the buffer has been reached. Enter OPEN command to go back to the top.

Explanation:

If the given step value is greater than the number of messages present in the buffer, then the remaining messages present in the buffer are displayed and the user is notified

System action:

None

User action:

Enter OPEN command, if needed, to display the most recent message in the buffer

Response 5

Enter either BACK, BACK <step value> or BACK ALL.

Explanation:

Can not step backward and display the messages, since an invalid optional parameter is specified

System action:

None

User action:

Renter the command BACK, BACK <step value> or BACK ALL to display either the specified or the entire captured messages

Notes

None

Examples

To step backward and display the messages based on step value:
>BACK 5
To display the entire captured messages:
> BACK ALL

Alarms

None

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Directories

Table of New/Modified Directories

Table 4-98 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
TstQuery	CHANGED	N/A	Support DisplayText	RES
SOC	CHANGED	N/A	Support DisplayText	RES

Accessing directory:TSTQUERY and SOC

To access

To access TstQuery: MAPCI;TESTTOOL;TSTQUERY.
To access SOC: SOC.

To return to CI

QUIT ALL.

Commands

Table of New/Modified Commands

Table 4-99 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SEND	CHANGED	N/A	MAPCI;TESTTOOL; TSTQUERY
SELECT OPTION	CHANGED	N/A	SOC
ASSIGN STATE	CHANGED	N/A	SOC

Command name: SEND

Command type

MENU.

Command target

SUPERNODE.

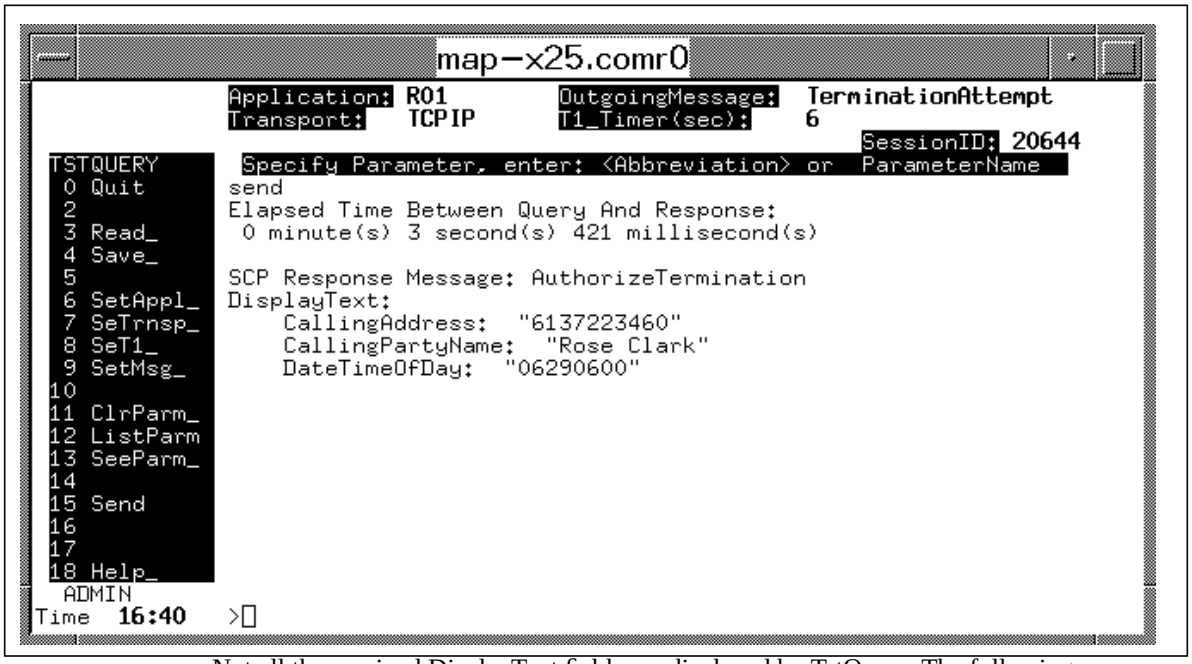
Command availability

RES.

Command description

The TstQuery tool did not support displaying the AIN DisplayText parameter within the Authorize_Termination response. TstQuery is now enhanced to support four fields of the DispalyText parameter: *Reason*, *CallingAddress*, *CallingPartyName*, and *DateTimeofDay* fields.
When an AIN DisplayText parameter is received from the off-board processor, TstQuery displays the parameter with "*DisplayText*" as the parameter title followed by the valid DisplayText fields received. Each field is displayed with its field name and content. The following figure illustrates an example of how the DisplayText parameter (consisting of the CallingAddress, CallingPartyName and DateTimeofDay fields) is displayed by TstQuery.

Figure 4-58 TstQuery Response at the MAP



Not all the received DisplayText fields are displayed by TstQuery. The following are specifications to show how the DisplayText parameter is supported by TstQuery:

— There are four various DisplayText fields supported by TstQuery. Please refer to “Table 4-100 The Received and Displayed Formats of Four DisplayText Fields” on page 322.

— Only the first 15 fields in the DisplayText parameter can be processed, fields in excess will be ignored.

— Fields are extracted and displayed in the order in which they are received. Only the first CallingName, CallingAddress and first valid TimeofDay fields in the DisplayText parameter get displayed.

— A valid CallingName field should be less than sixteen displaycable characters.

— A valid CallingAddress field should be with ten digits.

— A valid TimeofDay field is an eight-digit field to express the month, day, hour and minute. The first two digits of the TimeofDay field are used to express the *month* value with the range of ‘01’ to ‘12’, the second two digits express the *day* value with the range of ‘01’ to ‘31’, the third two digits express the *hour* value with the range of ‘01’ to ‘23’, and the last two digits express the *minute* value with the range of ‘01’ to ‘59’. Please refer to TR-NWT-001188 for the specifications.

— A valid Reason field has the value of either ‘O’ (out of area) or ‘P’ (private).

— If the first coming CallingAddress or CallingName filed is invalid, its contents will be discarded and a ‘O’ Reason field is inserted if no reason field is following the invalid CallingName or CallingAddress field respectively. The repeated CallingName or CallingAddress fields will be discarded.

— If the first coming TimeofDay field is invalid, this field will be discarded and no TimeofDay field will be displayed.

— If a Reason field is not a ‘P’ or ‘O’ field, it will be replaced as an ‘O’ field.

Table 4-100 The Received and Displayed Formats of Four DisplayText Fields

DisplayText Fields	Received Field Content	Displayed Format
CallingAddress	Encoded ASCII text in binary[a]	Readable ASCII text
Reason	Encoded ASCII text in binary	Readable ASCII text
CallingPartyName	Encoded ASCII text in binary	Readable ASCII text
DateTimeOfDay	Encoded ASCII text in binary	Readable ASCII text

a. Please refer to TR-NWT-000865 for more information about how a ASCII character is encoded.

Warning

N/A.

Command syntax

Send.

Parameter definitions

Table 4-101 SEND Parameter Definitions

PARAMETER	VALUE	DEFINITION
N/A		

Responses

Response

Explanation:

The TstQuery response displays the DisplayText parameter contained in the AIN response. Please refer to “Figure 4-58 TstQuery Response at the MAP” on page 321.

System action:

None.

User action:

None.

Notes

N/A.

Examples

Please refer to “Figure 4-58 TstQuery Response at the MAP” on page 321.

Command name: SELECT OPTION

Command type

NoN-MENU.

Command target

SUPERNODE.

Command availability

RES.

Command description

This command is used to select the DisplayText option.
Two other AIN SOC options should be turned on before the DisplayText option can be turned on. They are the AIN *Essentials* option(AIN00002) and the AIN *Call Management* option(AIN00006).

Warning

N/A.

Command syntax

select option <OrderCode>.

Parameter definitions

Table 4-102 SELECT OPTION Parameter Definitions

PARAMETER	VALUE	DEFINITION
OrderCode	string	It is the DisplayText SOC option order code.

Responses

Response

Figure 4-59 Response at the MAP

```
>select option AIN00008
OPTION     NAME                RTU STATE   USAGE   LIMIT   UNITS  LAST_CHG
------     ----                --- -----   -----   -----   -----  --------
AIN00008   Display Services    Y   IDLE    -       -       -      94/05/27
```

Explanation:

The RTU (Right-To-Use) field indicates whether the customer has purchased the option. The RTU value “Y” means that the customer has purchased the option and therefore has the right to transition the option STATE to ON or IDLE.

The USAGE, LIMIT, and UNIT fields do not apply to DisplayText option. Please refer to AG4163 for more information on the SOC/ASOC.

System action:

None.

User action:

None.

Notes

N/A.

Examples

To provide a better concept of how to manipulate DisplayText SOC option, the following figure shows not only the example of how to select DisplayText option, but also the process of how to assign DisplayText RTU and how to turn the option to the ON and IDLE states.

Figure 4-60 Transitioning AIN DisplayText Option

```
CI:
>SOC
SOC:
>assign RTU KeyCord to AIN00008  %A KeyCord is a purchased or delivered password
Done.
>select option AIN00008
OPTION     NAME                 RTU STATE   USAGE   LIMIT   UNITS  LAST_CHG
------     ----                 --- -----   -----   -----   -----  --------
AIN00008   Display Services      Y   IDLE    -       -       -      94/05/27
>
>
> assign state on to AIN00008
Done.
>
>select option AIN00008
OPTION     NAME                 RTU STATE   USAGE   LIMIT   UNITS  LAST_CHG
------     ----                 --- -----   -----   -----   -----  --------
AIN00008   Display Services      Y   ON      -       -       -      94/05/27
>
>
> assign state idle to ain00008
This transition will disable DisplayText service for all current and future
AIN subscribers.
Confirm state change of option AIN00008 to state IDLE
by entering the textual option name:
>display services
Done.
>
>select option AIN00008
OPTION     NAME                 RTU STATE   USAGE   LIMIT   UNITS  LAST_CHG
------     ----                 --- -----   -----   -----   -----  --------
AIN00008   Display Services      Y   IDLE    -       -       -      94/05/27
```

Command name: ASSIGN STATE

Command type

Non-MENU.

Command target

SUPERNODE.

Command availability

RES.

Command description

This command assigns the state of the DisplayText option to IDLE or ON.

Warning

In the process of assigning the IDLE state to the DisplayText option, a warning message will be displayed to tell user that DisplayText service will be disabled for all AIN subscribers.

Command syntax

assign state <state>{IDLE, ON} to <option>

Parameter definitions

Table 4-103 ASSIGN STATE Parameter Definitions

PARAMETER	VALUE	DEFINITION
STATE	IDLE or ON	It is the option state that will be assigned.
OPTION	OrderCode	It is the DisplayText option order code

Responses

Response

Please refer to section 7.3.8 Figure 3.

Explanation:

There are two kinds of responses:

1. The needed state is assigned.
2. Further confirmation is required to assign the option state.

System action:

In order to assign IDLE state to the DisplayText option, system requires user’s further confirmation.

User action:

If system asks for further confirmation, user has to provide the DisplayText option name: *`display services`*, to activate the option.

Notes

N/A.

Examples

Please refer Section 7.3.8 Figure 3.

Alarms

N/A.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

Reference

BNR Activity AR0239 “AINSSP TOOL: TEST QUERIES - I”, PLS DOC.
Bellcore, Technical Reference TR-NWT-000865 “Generic Requirements for ISDN Display for Call Control and Selected Serials”, Issue 1, March 1991.
Bellcore, Technical Reference TR-NWT-001284 “Advanced Intelligent Network (AIN) 0.1 Switching Systems Generic Requirements”, Issue 1, August 1992
Bellcore, Technical Reference TR-NWT-001285 “Advanced Intelligent Network (AIN) 0.1 Switch-Service Control Point (SCP) Application Protocol Interface Generic Requirements”, Issue 1, August 1992.
Bellcore, Technical Reference TR-NWT-001188 “LATA Switching Systems Generic Requirements --- CLASS Feature: Calling Name Delivery Generic Requirements”, Issue 1, December 1991.
BNR Activity AG4163 “AIN SOC PHASE 1”, PLS DOC.
BNR Activity SOCGUIDE “Software Optionality Control Guide”, PLS FMDOC.

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Directories

No directories are modified by this feature.

Commands

To avoid duplicate documentation, the rest of this section has not been filled out. Please refer to the documentation for feature AR1413 instead.

Table of New/Modified Commands

Table 4-104 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
BSY	changed	N/A	C7LKS_DIR
BSY	changed	N/A	LIU_DIR

Alarms

This feature does not make any changes to the alarms.

CM0603.aa07

Directories

Table of New/Modified Directories

Table 4-105 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
CMMNTDIR, CMMEMDIR	Changed		SuperNode	RES

Accessing directory:

Two directories will be affected, CMMNTDIR, and CMMEMDIR.

To access

To access directory CMMNTDIR, enter:

```
> MAPCI;MTC;CM
```

To access directory CMMEMDIR, enter:

```
> MAPCI;MTC;CM;MEMORY
```

To return to CI

To return from CMMNTDIR, enter:

```
 > quit all
```

To return from CMMEMDIR, enter:

```
 > quit all
```

Commands

Table of New/Modified Commands

Table 4-106 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QueryMemLims	NEW		CMMNTDIR, CMMEMDIR

Command name: QueryMemLims

Command type

QueryMemLims is a Non-Menu command.

Command target

The `QueryMemLims` command is targeted for SuperNode.

Command availability

This command is RES.

Command description

QueryMemLims tells the user which platform is being used, how much memory has been used and how much memory is available in the program and data store, and on the SLM.

Warning

Command querymemlims is non-intrusive and will not affect system behavior.

Command syntax

> `QueryMemLims`
`QueryMemLims` takes no parameters.

Parameter definitions

Table 4-107 QueryMemLims Parameter Definitions

PARAMETER	VALUE	DEFINITION
NONE		

Responses

Response

```
Memory Limit Thresholds
-----------------------

Current CPU:        SN20
Current SLM:        SLMII

Storetype              Inuse     Max
---------              -----     ---
Data Store             100M      172M
Program Store          32M       64M
Image Size             132M      212M
```

```
SLMLIM Minor Threshold : 140M
SLMLIM Major Threshold : 150M
```

Explanation:

`QueryMemLims` will determine the platform type, and SLM type, and will display the values associated with the current memory thresholds, as well as the quantities of currently inuse memory.

System action:

The data, as described above, will be displayed.

User action:

No user actions are required.

Notes

There are no restrictions, limitations, preconditions, interactions, or other unusual characteristics associated with the use of this command.

Examples

```
Memory Limit Thresholds
-----------------------

Current CPU:        SN20
Current SLM:        SLMII

Storetype              Inuse     Max
---------              -----     ---
Data Store             100M      172M
Program Store          32M       64M
Image Size             132M      212M

SLMLIM Minor Threshold : 140M
SLMLIM Major Threshold : 150M


------ OR ------


Memory Limit Thresholds
-----------------------

Current CPU:        SN20
Current SLM:        SLMII

Storetype              Inuse     Max
---------              -----     ---
Data Store             172M      172M
Program Store          32M       64M
Image Size             204M      212M
```

```
SLMLIM Minor Threshold : 140M
SLMLIM Major Threshold : 150M

--- Warning : Data Store Threshold Reached!! ----
```

Alarms

Alarm name: StrAlc

Conditions required to raise the alarm

The alarm should be raised if the used data store exceeds the maximum data store threshold, if the used program store exceeds the maximum program store threshold, or if the current image size is greater than the maximum image size permitted.

Duration of the alarm

The alarm will only stop when the memory used in the area that set off the alarm is drops to ten vastareas below the threshold. This buffer ensures a raised alarm will remain raised in situations in which inuse memory hovers around a threshold value.

Chapter 5 Release NA006

The information contained in this document has to do with changes, additions, or deleted information in reference to man-machine interface (MM) or commands. This chapter, NA006, includes information appropriate for the following product computing module loads (PCLs): LECB006 and LETB006.

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Directories

Table of new/modified directories

Table 5-1 New/modified directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	CHANGED		SUPERNODE	RES

Accessing directory: PROGDIR

To access

No command necessary. PROGDIR is a base directory.

To retucrn to CI

None.

Commands

Table of New/modified commandsT

Table 5-2 New/modified commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
NSSANIVR	NEW		PROGDIR
TESTSS	CHANGED		C7SCCPLOC_DIR

Command name: NSSANIVR

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command sends out an ANI remote database query using the same protocol as a call processing remote database query to assist in debugging the remote ANI Validation system. It will report back the results of the query at the command line, no matter what type of response it receives. This tool is primarily useful in establishing that all components of the SCCP / TCAP subsystems are in operation. This command will not begin to return valid results until all SCCP / TCAP components of the remote DBCP ANI query system are in-service and fully operational.

Warning

None

Command syntax

CI:
>help nssanivr
TESTSS NSSANI = GENERATE A SIMULATED DBCP ANI LOOKUP.
Parms: <CLGADDR> STRING
    <CLDADDR> STRING
    <DIGITS> STRING

Parameter definitions

Table 5-3 Parameter definitions

PARAMETER	VALUE	DEFINITION
CLGADDR	STRING (10 digits)	The SCCP address of the node requesting ANI validation. In this case, the address of the node where the NSSANIVR command is run.
CLDADDR	STRING (10 digits)	The SCCP address of the node where the DBCP application resides.
DIGITS	STRING (3 or 10 digits)	The actual ANI digits to be lookup up in table ANIDATA on the DBCP.

Responses (NSSANIVR)

Response 1

>nsstcnvr 6137224444 6137225555 2147837000

The NSS ANI system is currently not in service
Verification queries are not possible

Explanation:

The local side of the NSSANI SCCP application is not in-service.

System action:

None

User action:

Go the MAPCI; MTC; CCS; CCS7; SCCPLOC level of the map and BSY / RTS the NSSANI application.

Response 2

>nsstcnvr 6137224444 6137225555 2147837000

Another ANI verification process is currently running
Multiple queries are not allowed.

Explanation:

Another user is running either the NSSANIVR command, the TESTSS NSSANI command or a TRAVER that is requesting remote ANI validation.

System action:

None

User action:

Wait till the other user is done. Individual queries should not take more than a few seconds.

Response 3

>nsstcnvr 6137224444 6137225555 2147837000

Problem with mutual exclusion semaphore
ANI queryaborts

Explanation:

The mutual exclusion semaphore utilities are not returning the semaphore like they should. The ANI validation application is unsure whether or not it can proceed with the query without writing over the information that may possibly be held by another ANI query.

System action:

None

User action:

Wait for a moment and try again. Persistence of this message should be brought to the attention of Nortel.

Response 4

>nsstcnvr 6137224444 6137225555 2147837000

Calling Address must be 10 digits ....or....
Calling Address invalid ....or....
Called Address must be 10 digits ....or....
Called Address invalid

Explanation:

Wrong information has been entered in either the CLGADDR or CLDADDR paramters of the NSSANIVR command.

System action:

None

User action:

Make sure the calling and called addresses are 10 digits long and composed of only numbers.

Response 5

>nsstcnvr 6137224444 6137225555 2147837000

Table ANIDATA currently allows lookups for only
3 or 10 digit ANIs. ....or....
ANI invalid

Explanation:

Wrong information has been entered in the DIGITS PARAMETER of the NSSANIVR command.

System action:

None

User action:

Make sure that the ANI digits are three or ten digits long (that's all that table ANIDATA currently supports), and that they are composed entirely of numbers.

Response 6

>nsstcnvr 6137224444 6137225555 2147837000

Problem getting a transaction id - query aborts ....or....
Unable to allocate mailbox pool - query aborts ....or....
Unable to allocate mailbox - query aborts

Explanation:

Another user is running either the NSSANIVR command, the TESTSS NSSANI command or a TRAVER that is requesting remote ANI validation.

System action:

None

User action:

Wait till the other user is done. Individual queries should not take more than a few seconds.

Notes (NSSANIVR)

Examples (NSSANIVR)

Command name: TESTSS

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is provided by the SCCP software at the MAPCI; MTC; CCS; CCS7; SCCPLOC level of the map. It serves as a “holding” command for the application-defined verification procedure for each SCCP application. When the user executes the TESTSS command, the SCCP software then in turn executes the verification procedure defined for the application given in the command line. The verification procedure for DBCP ANI Validation is the CI command NSSANIVR described above, so in effect this command has exactly the same functionality of NSSANIVR; it’s simply executed in a different manner.

Warning

None

Command syntax

```
>help testss
TESTSS - TEST A LOCAL SUBSYSTEM
Parms: <NAME OF SUBSYSTEM> STRING
    [<PARAMETERS>... STRING]
```

Parameter definiitions

Table 5-4 Parameter definitions

PARAMETER	VALUE	DEFINITION
NAME OF SUBSYSTEM	STRING	The name of the SCCP application whose verification procedure the user would like to execute. In this case: “NSSANI”
PARAMTERS	STRING	The parameters specified by the CI command defined as the verification procedure for the subsystem above. In this case, it is the parameter list described for NSSANIVR in section 7.2.2.7 above.

Responses (TESTSS)

Response

Explanation:

System action:

User action:

Notes (TESTSS)

Examples (TESTSS)

Alarms

No alarms are defined by this feature.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AF6105mm.aa17

Directories

Not applicable.

Table of New/Modified Directories

Not applicable.

Accessing directory:

Not applicable.

To access

Not applicable.

To return to CI

Not applicable.

Commands

Querypm Flt.

Table of New/Modified Commands

Table 5-5 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
Querypm Flt	Changed		POST

Command name: Querypm Flt

Command type Menu.

Command target

Supernode and Brisc

Command availability

RESident.

Command description

The Querypm Flt command exists in the ‘mapci;mtc;pm;post pm x level’. This command is used to post a fault to the map for a pm or unit. Two new faults have been added by this feature for the ISTB status. One fault can be seen when the active unit is ISTB of ‘parity’ and the other new fault is when the unit is ISTB of ‘too many parity faults’.

Warning

Not applicable.

Command syntax

The ‘Querypm Flt’ command syntax has not changed. New fault messages output to the map screen have been added by this feature.

Parameter definitions

Table 5-6 Qyerton Flt Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

EXAMPLE 1: (unit 1 is active, unit 0 inactive)

```
>querypm flt
Node is ISTb
      One or both Units inservice trouble
Unit 0
      no fault exists
Unit 1
      The following inservice troubles exists:
            Parity audit has detected a hard parity fault.
            A reload is required to clear this fault.
            The system will autoload this unit during the next
            XPM REX test window.
```

EXAMPLE 2:

```
>querypm flt
Node is ISTb
      One or both Units inservice trouble
Unit 0
      no fault exists
Unit 1
      The following inservice troubles exist:
      Parity audit has detected a hard parity fault.
      Three parity faults have occurred on this unit within a month.
      Use Querypm Diaghist for additional information on fault.
      Replace card indicated. A SWACT FORCE is required to clear this
      ISTB and to perform a SwAct.
```

Explanation

EXAMPLE 1:
This response is informational only. This response is visible on SUPERNODE and BRISC.

EXAMPLE 2:
The Querypm Diaghist will list a card associated with the parity fault. This card should be changed. This response is visible on SUPERNODE and BRISC.

System action

EXAMPLE 1:
The system will swact and reload the XPM during the next XPM REX test window. After the reload the XPM will be cleared of this ISTB fault.

EXAMPLE 2:
A manual or system swact cannot be performed with this fault. A SWACT FORCE is necessary to swact and clear the ISTB fault.

User action

EXAMPLE 1:
No action required by the user. The user can perform a manual swact and reload to clear the parity fault.

EXAMPLE 2:
The Querypm Diaghist will list a card associated with the parity fault. This card should be changed and a SWACT FORCE command issued to clear the ISTB and to clear the counter.

Notes

Not applicable.

Examples

```
QUERYPM: QUERY MISC INFO ABOUT THE PM
Parms: [<OPTION> {FLT,
            CNTRS,
            FILES,
            DIAGHIST [<OPTHIST> {DIAG,
                                 CARD,
                                 RESET}]}]
```

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Not applicable.

Duration of the alarm

Not applicable.

AF6226mm.aa12

Alarms

Alarm name: E911 LDT PSAP percentage busy alarms

Three new alarms are added by this feature, all serving the same function except that one is a minor alarm, one major, and the other critical. The level of alarm raised depends upon the severity of the busy condition at the PSAP, and datafill.

- E911_LDTBSY_MINOR (minor alarm)
- E911_LDTBSY_MAJOR (major alarm)
- E911_LDTBSY_CRITICAL (critical alarm)

Conditions required to raise the alarm

These alarms are raised when a datafilled percentage of members of an LDT PSAP hunt group are in a potentially undesirable busy state ("busy" is defined here as any state other than CPB, IDL, or INB). An audit runs every 5 minutes to scan all LDT PSAP hunt groups and to determine, for each PSAP hunt group, what the percentage of members busy is.

```
# of PSAP hunt group members busy                 Percentage of members
------------------------------------------  X 100 ==> of the PSAP which are
(# of members in hunt group                          busy
   - # of members in INB state)
```

The craftsperson defines the percentages of members busy at which these alarms will be raised through datafill associated with the LDTPSAP hunt group line option.

Table of LDT PSAP Percentage Busy Alarms and associated datafill for percentages

Table 5-7 LDT PSAP Percentage Busy Alarms and associated datafill for percentages

Alarm Name	LDTPSAP option field
E911_LDT_BSY_MINOR	**MNALMPCT**
E911_LDT_BSY_MAJOR	MJALMPCT
E911_LDT_BSY_CRITICAL	CRALMPCT

When an LDT PSAP hunt group has a percentage of members busy which is greater than or equal to one of the datafilled percentages (MNALMPCT, MJALMPCT, and CRALMPCT), the alarm for that level will be raised. If the percentages of members busy is greater than or equal to any two, or all three of the datafilled percentages, only the alarm level corresponding to the highest percentage datafilled will be raised.

If an alarm is already raised on behalf of another LDT PSAP hunt group, the alarm will not be “re-raised” since an alarm can only be in “raised” or “lowered” state. Every time LDT PSAP’s are audited, an E911227 log is produced for every LDT PSAP hunt group meeting one of these alarm conditions, whether or not the alarm is actually raised during that audit, or was raised previously.

These alarms are merely to alert the craftsperson that at least one LDT PSAP hunt group is in a busy condition. When one of these alarms is active, E911227 logs should be monitored to determine which LDT PSAP’s are actually in that condtion.

Duration of the alarm

These alarms will remain active as long as there is at least one LDT PSAP hunt group meeting the conditions described above.

If one of the LDT PSAP hunt group percentage busy alarms was previously raised, and the next audit determines that there are no longer any LDT PSAP’s which meet the conditions for that alarm, the alarm will be lowered.

NOTE: An implication of this is that it may take several minutes for the alarm to actually be lowered after the alarm condition has been fixed at the PSAP hunt group, since there are several minutes between audits (which is done, rather than having a continuously running audit, for real time and system performance reasons).

AF6232mm.aa12

Directories

Table of New/Modified Directories

Table 5-8 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
NPMDIR	Changed		Both	RESident

Accessing directory:

NPMDIR

To access

MAPCI;MTC;PM;POST <device>

To return to CI

QUIT 3 or QUIT ALL

Commands

LOADPM

IMAGE

XPMSTOR

Table of New/Modified commands

Table 5-9 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
LOADPM	Changed		NPMDIR
IMAGE	New		NPMDIR
XPMSTOR	New		NPMDIR

Command name: LOADPM

Command type

Listed MENU

Command target

Both

Command availability

RESident

Command description

LOADPM is an existing command used to apply software (and XPM firmware) loads to a variety of PM types, including XPMs, Series 1 PMs such as an Maintenance Trunk Module, and to subtending nodes such as Line Concentrating Modules.

This feature removes the functionality to this command which is specific to capabilities provided by the NT7X05AA card:

- Transfer a loadfile to the NT7X05, via XPMSTOR option.
- ACTIVE is also removed from the LOADPM command parameters.

The LOADPM command previously supported a broader range of capabilities. The description herein focuses only on the usage of parameters and the capabilities provided via the NT7X05 local storage device. Having stored a loadfile on the NT7X05, the unit may be placed ManBuSY and the local file can be loaded into the XPM in a much shorter timeframe than has been possible to load from the CM. This has the benefit of reducing the simplex time required for reloading of a unit. The LOADPM command now supports loading the XPM from the local loadfile to the RAM.

Once the desired load has been placed in memory and the unit has been placed in-service (inclusive of required Static Data and Patches), the Peripheral Loader system may dump an image of the MX77 memory onto the NT7X05.

This local image file may be used for restoration of a unit's working load and a resumption of service in a significantly shorter time than ever possible via the CM load recovery. The LOADPM command now supports loading the XPM from the local image file to the RAM.

It should be noted that support of image file capability does not extend to ISDN-based XPMs in the current release.

It also should be noted that specific indicators of LOADPM progress are posted on the MAP when the Peripheral Loader is involved. When booting from local loadfile or from image, there is an initial stage following the PMRESET wherein the Recovery Software Loader (RSL) is first loaded into the XPM. This new initial stage involving the RSL is a short setup activity which is key to usage of the image and/or loadfile on the NT7X05.

The PRL MAP progress messages associated with the LOADPM command are:

"LoadRSL" -- the Peripheral Loader setup is in-progress,

"BootingImage " -- the Peripheral Loader is restoring an image to memory and performing an initialization,

"BootingLoad" -- the Peripheral Loader is loading a loadfile to memory and performing an initialization.

Real-Time Impact

Real time estimation for the LOADPM command involving boot image or boot local loadfile does not place as much burden on the CM as does a standard load request such as a Loadpm inactive cc. The XPMSTOR command is an in service loading activity and does require some CM resources. This command should be viewed as having the same real time expense as the Loadpm command; i.e. Loadpm inactive cc. Therefore, XPMSTOR command should not be invoked during peak traffic hours.

Impact is minimal for the IMAGE command since all that is involved is the submission of a message request to the XPM to perform Image dump activity. Major consideration is then focused on activity on the PM itself. Recognition that this is a factor for completion of the Image dump should be understood.

Warning

LOCAL LOADFILE <filename> does not hold patches, but will patch from disk after loading.

Command syntax

```
LOADPM:
   <DEVICE>   {UNIT <UNIT_NO> {0 TO 1},
               PM,
               INACTIVE}

   [<SOURCE> {CC [<MODE> {FULL,
                          DATA,
                          EXEC,
                          CMR,
                          FIRMWARE}]

                    [<FILE> STRING],

              LOCAL [<MODE> {IMAGE,
                             LOADFILE}]
                    [<FILE> STRING]}]
  [<FORCE> {FORCE}]
  [<NOWAIT> {NOWAIT}]
   [<ALL> {ALL [<RFILE> STRING]}]
```

Old LOADPM:

```
<DEVICE>   {UNIT <UNIT_NO> {0 TO 1},
            PM,
            INACTIVE
           ACTIVE}
[<SOURCE> {CC [<MODE> {FULL,
                       DATA,
                       EXEC,
                       CMR,
                       FIRMWARE,
                       XPMSTOR}]
              [<FILE> STRING],

           LOCAL [<MODE> {IMAGE,
                          LOADFILE}]
                 [<FILE> STRING]}]
[<FORCE> {FORCE}]
 [<NOWAIT> {NOWAIT}]
[<ALL> {ALL [<RFILE> STRING]}]
```

The bold print in the above syntax indicates that which is being taken out of the LOADPM command.

Responses

This section documents existing responses that have new user actions.

Response

The image was missing patches.

The unit can be recovered without patches.

Explanation: both

A successful load of a local image file has been completed, however, that image has been tracked as missing recently applied/removed patch(es). It therefore is “stale” with regard to the previous running context.

System action:

User action:

The DBAUDIT command may be used to identify and manually correct the discrepancy. The customer may prefer to retain service with the “stale” image. The latency of image dumps matching the latest patch configuration can be eliminated by use of the IMAGE dump command or explicit BSY/RTS of the affected unit. Upon manual RTS, a new image is always dumped to the NT7X05.

Response

Local image is not available

Explanation: both

Booting from the local image file has been requested, but the image file is not present on the NT7X05.

System action:

An audit should detect the absence of a local image file and cause a new one to be dumped.

User action:

Use of the IMAGE dump command or the BSY/RTS sequence will cause a new image to be dumped. The command may then be reattempted.

Notes

Booting from local image or loadfile first invokes loading of the RSL element for support of Peripheral Loading.

ISDN peripherals have only loadfile support in the current release. Image support is deferred to a future release.

Examples

LOADPM INACTIVE LOCAL IMAGE

LOADPM UNIT 0 LOCAL LOADFILE

Command name: IMAGE

Command type

Unlisted MENU

Command target

Both

Command availability

RESident

Command description

The IMAGE command is a new command with a device selection parameter and one optional parameter. The IMAGE command requests to dump an image (makes a copy) of the MX77's (also known as the Universal Processor or "UP") RAM in an in-service (active or inactive) XPM unit and copies it to the NT7X05. In the event that the XPM must be reloaded, the image may be restored from the NT7X05 to the UP's RAM. The LOADPM command supports loading the XPM from the image file local to the NT7X05.

It should be noted that support of image file capability does not extend to ISDN-based XPMs in the current release.

In addition, new potential responses for IMAGE :

- Image support for INSV or ISTB XPMs.
- Image support for NON-ISDN XPM.
- Image request submitted.
- Image request denied.

Image dump in progress. This simply indicates that the XPM is actively dumping a new image to the NT7X05. While the image is being dumped, the image file is not usable.

The real-time consumption of the Image command within the CM is minimal and can be performed at any time during office operation. The impact within the XPM may vary in terms of duration based on XPM activity due to the fact that it is a background task. General guidelines for usage is that the command may be performed at any time.

Warning

Not applicable

Command syntax

IMAGE:

```
[<DEVICE> {PM,
                INACTIVE,
                ACTIVE}
 [<ALL>{ALL}]
```

Parameter definitions

Table 5-10 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<DEVICE>	PM	peripheral module
	INACTIVE	Inactive side
	ACTIVE	Active side
<ALL>	ALL	

Responses

Response

Image request denied

Explanation: both

IMAGE to selected device of the PM has been requested, but has been denied for some reason.

example: LTC 0, UNIT 0, Image request denied.

System action:

User action:

Check PM logs, QueryPM FLT, QueryPM FILES. Correct and reattempt the command.

Response

IMAGE request submitted.

Explanation: both

A image request for one or more units was submitted.

System action:

XPM is told to dump an image.

User action:

Wait a minimum of 2 minutes then QueryPM FILES to check if action is completed.

Response

IMAGE command not valid for OOS unit

Explanation: both

Image to local NT7X05 storage has been requested for a ManBusy, CBsy or Offline unit.

System action:

User action:

Bring the unit back in service.

Response

Unit is not configured to support image.

Explanation: both

Image has been requested for the PM and the configuration does not support this capability, either from the processor cards being used or from lack of the NT7X05AA cards.

System action:

User action:

Verify posting and intended configuration.

Response

IMAGE command not supported for ISDN XPM

Explanation: both

Image has been requested for a PM type supporting ISDN. Imaging is not supported for ISDN XPMs.

System action:

User action:

Assure intended configuration.

Response

Image already in progress

Explanation: both

This simply indicates that the XPM is actively dumping a new image to the NT7X05. While the image is being dumped, a new image request cannot be honored.

System action:

User action:

This indicates that a manual request may not be necessary. Wait and retry as desired. Once the image dump is finished then this response is no longer seen.

Command name: XPMSTOR

Command type

Unlisted MENU

Command target

Both

Command availability

RESident

Command description

The XPMSTOR command is a new command with a device selection parmeter and three optional parameters. This command provides loadfile transfer functionality specific to the in-service NT7X05AA card. File transferral can only be done when the unit is in-service, in contrast to many existing maintenaance capabilities which require a busy unit.

The PRL MAP progress messages associated with the XPMSTOR command :

“XPMStor” -- the Peripheral Loader is performing a loadfile transfer to the NT7X05 card.

In addition, new potential responses are :

- XPMStor passed
- XPMStor failed
- XPMStor in progress

This simply indicates that the XPM is actively transfering files to the NT7X05. While the loadfile is being dumped, the loadfile is not usable.

XPMSTOR utilizes the same resources within the CM as would be true for a standard single unit or broadcast loading activity. The higher CPOCC present has an effect on the overall elapsed time. Guidelines for usage must take into account both the CM and XPM real-time. In general, a single XPMSTOR operation can be concurrent with as high a traffic level CPOCC of 50% or less. This is true whether the command is for transfer to a single unit, a PM, or broadcast. When XPMSTOR is performed, XPM real-time must be available for the background task to write file records without timeout and/or to forward broadcast records without a timeout. Ideally, the XPM active unit has a real-time occupancy no greater than 60% for a single PM action, and no greater than 50% for broadcast.

Warning

Not applicable.

Command syntax

XPMSTOR:

```
[<DEVICE> {PM,
           INACTIVE,
           ACTIVE}
 [<FILE>STRING]
[<NOWAIT>{NOWAIT}]
[<ALL>{ALL}]
```

Parameter definitions

Table 5-11 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<DEVICE>	PM	Peripheral module
	INACTIVE	Inactive side
	ACTIVE	Active side
<FILE>	STRING	Request NT7X05 file contents
<NOWAIT>	NOWAIT	Frees terminal for other entries
<ALL>	ALL	All PMs posted

Responses

Response

XPMStor not valid for OOS unit

Explanation: both

File transfer to local NT7X05 storage has been requested for a ManBusy, CBsy or Offline unit.

example: LTC 0, UNIT 0, XPMStor not valid for OOS unit.

System action:

User action:

RTS the unit and reattempt the command.

Response

Both units must support INSV loading.

Explanation: both

XPMSTOR was requested for transferring a file to either both units or the INACTIVE unit of an XPM and the given PM type is refusing the action.

System action:

User action:

Assure the correct release is loaded in the XPM. If no discrepancy exists, contact your nearest NORTEL representative for software investigation.

Response

Both units must be INSV or ISTB

Explanation: both

XPMSTOR was requested for transferring a file to either both units or the INACTIVE unit of a PM when one or both were not in the INSV or ISTB service state.

System action:

User action:

Units must be RTSed for the file transfer mechanism to succeed.

Response

XPMStor requires units be configured for PRL

Explanation: both

Peripheral Loader file transferral has been requested for the PM and the configuration does not support this capability, either from the processor cards being used or from lack of the NT7X05 cards.

System action:

User action:

ACTIVE unit must be in-service.

Response

Broadcast XPMStor request submitted

Explanation: both

XPMStor for a group of posted PMs has been specified.

System action:

Status displays should show “XPMStor”

User action:

Response

Broadcast XPMStor mate request submitted

Explanation: both

XPMSTOR for a group of posted units has been specified.

System action:

Status displays should show “XPMStor”

User action:

Response

XPMStor disallowed - Image in progress

Explanation: both

This simply indicates that the XPM is actively dumping a new image to the NT7X05. While the image is being dumped, XPMSTOR cannot be honnered and the image file is not usable.

System action:

User action:

Wait and retry. Once the image dump is finished then this response is no longer seen.

Response

not submitted as one or both units

are no longer INSV or Istb

Explanation: both

XPMSTOR has been requested for PM or INACTIVE unit but one or both units is no longer in service.

System action:

This could result if system maintenance has taken precedence before the XPMSTOR command initiates the file transfer.

User action:

Investigate PM logs in determination of cause for the state change. Restore the state and reattempt the command.

Response

not submitted as state no longer INSV

Explanation: both

XPMSTOR has been requested for a single but it is no longer in service.

System action:

This could result if system maintenance has taken precedence before the XPMSTOR command initiates the file transfer.

User action:

Investigate PM logs in determination of cause for the state change. Restore the state and reattempt the command.

Response

XPMStor failed

Explanation: both

XPMSTOR of the PM has been requested, but has failed for some reason.

System action:

User action:

Check PM logs. QueryPM FLT. Verify attendant file system (e.g. disk) or PM state changes which could cause failure. Correct and reattempt the command.

Response

XPMStor Passed

Explanation: both

XPMSTOR request for one or more units was successful

System action:

User action:

Response

Broadcast XPMStor failure

Explanation: both

This message can be displayed when a group of PMs is posted and all are selected for file transferral to the respective NT7X05 cards. This implies that one or more nodes could not receive the requested file.

System action:

User action:

Check PM logs. QueryPM FLT. Verify attendant file system (e.g. disk) or PM state changes which could cause failure. Correct and reattempt the command.

Alarms

Not applicable.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AF6326mm.aa06

Directories

Not Applicable.

Table of New/Modified Directories

Table 5-12 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

The TRAVER tool is affected by the introduction of the ESCEA, ESCOP and ESCDN escape criteria in the following way:

- TRAVER always shows the translation as if the CPC escape criteria functionality is functioning properly regardless of the state of the AIN00025 SOC option.
- When any of the new escape criteria is met, TRAVER will output the normal triggering criteria is not met message. No new messages will be display by TRAVER due to the CPC Escape Criteria.

Table of New/Modified Commands

Table 5-13 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	Changed		

Command name: TRAVER

TRAnslation **VER**ification.

Command type

NON-MENU.

Command target

SUPERNODE.

Command availability

RES.

Command description

TRAVER is a tool that allows craftsperson to verify the translation on the switch prior to making a call.

Warning

Not Applicable.

Command syntax

Not Applicable.

Parameter definitions

Not Applicable.

Table 5-14 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Not Applicable.

Response

Explanation:

System action:

User action:

Notes

TRAVER always shows the translation as if the CPC escape criteria functionality is functioning properly regardless of the state of the AIN00025 SOC option.

When any of the new escape criteria is met, TRAVER will output the normal triggering criteria is not met message. No new messages will be display by TRAVER due to the CPC Escape Criteria.

Examples

Example of TRAVER with a call escaping PODP trigger using ESCDN trigger follows:

```
>traver l 6218903 6218904 b
TABLE LINEATTR
0 1FR NONE NT FR01 0 613 P621 L613 TSPS 10 NIL NILSFC LATA1 0 NIL NIL 00 N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
TUPLE NOT FOUND
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
```

```
AIN Orig Attempt TDP: no subscribed trigger.
TABLE STDPRTCT
P621 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . 621 624 N NP 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 Y 932 2 ( 385) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 6218 6219 DN 613 621
AIN Info Collected TDP: no subscribed trigger.
TABLE TRIGGRP
OFCTRIG INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
 . N11 ( DG N11TRAF)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPTRAF)$ NIL
Trigger R01 PODP is applicable to office.
 . PODP ( DG SOMDIG) (ESCDN ) (ESCOP ) (ESCEA )$ NIL
Trigger R01 PODP is applicable to office.
 .  . TABLE TRIGDIG
 .  . SOMDIG PODP 6136218904 PODP EVENT TCAP R01 SS7 AINJAZZ DFLT (POTUSE CPC) $
 .  .  . TABLE C7GTTYPE
 .  .  . AINJAZZ ANSI7 3 $
 .  .  . TABLE C7GTT
 .  .  . AINJAZZ 6136218904 6136218904 SSNONLY (AINTEST) $
AIN Info Analyzed TDP: trigger criteria not met.
TABLE TOFCNAME
613 621
TABLE DNINV
613 621 8904 L HOST 05 1 04 00
AIN Term Attempt TDP: no subscribed trigger.
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LCASCRCN
613 L613 ( 17) OPTL N
 . SUBTABLE LCASCR
 . 621 622
TABLE PFXTREAT
OPTL NP Y NP UNDT
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED

+++ TRAVER: SUCCESSFUL CALL TRACE +++


DIGIT TRANSLATION ROUTES

1 LINE                  6136218904         ST
```

```
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 *OFLO
2 LKOUT

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

Alarms

Not Applicable.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG4408mm.ab01

Directories

This document sumaries all the MM sections for features AG4408, AG4409 in CSP05 and features AG4880, AG4884 in CSP06.

Table of New/Modified Directories

Table 5-15 Modified Directories in CSP05

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
IOCMDIR	CHANGED		SuperNode	RES
MPCMDIR	CHANGED		SuperNode	

Table of Modified Directories inCSP06

Table 5-16 Modified Directories in CSP06

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	CHANGED		SuperNode	RES
IOCMDIR	CHANGED		SuperNode	RES

Accessing directory: PROGDIR

There is no change to the existing method of accessing the directory.

To access

Default directory - no command required.

To return to CI

No action required.

Accessing directory: IOCMDIR

There is no change to the existing method of accessing the directory.

To access

MAPCI;MTC;IOD;IOC x where x is the IOC number

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-17 New/Modified Commands for Feature AG4408 in CSP05

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
PORT	NEW		IOCMDIR
QIOM	NEW		IOCMDIR
DOWNLD	NEW		IOCMDIR
TST	CHANGED		IOCMDIR
BSY	CHANGED		IOCMDIR
RTS	CHANGED		IOCMDIR
OFFL	CHANGED		IOCMDIR
STATUS	CHANGED		IOCMDIR
Query	CHANGED		IOCMDIR
MDN	CHANGED		IOCMDIR
Reset	CHANGED		IOCMDIR
Devtype	CHANGED		IOCMDIR
TST	CHANGED		TTYMDIR
BSY	CHANGED		TTYMDIR
RTS	CHANGED		TTYMDIR
OFFL	CHANGED		TTYMDIR
DDU	CHANGED		PROGDIR

Table of Modified Commands

Table 5-18 Modified commands for feature AG4409 in CSP05

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
BSY	CHANGED		MPCMDIR
RTS	CHANGED		MPCMDIR
OFFL	CHANGED		MPCMDIR
Qlink	CHANGED		MPCMDIR
MPC	CHANGED		PROGDIR

Table of New Commands

Table 5-19 New Commands for Feature AG4880 in CSP06

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QIOMALL	NEW		PROGDIR
UPGIOM	NEW		IOCMDIR

Table of New/Modified Commands

Table 5-20 New/Modified Commands for Feature AG4880 in CSP06

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
REBOOTIOM	NEW		IOCMDIR
QIOM	CHANGED		IOCMDIR
BSY	CHANGED		IOCMDIR
RTS	CHANGED		IOMDIR
TST	CHANGED		IOMDIR

Command name: PORT in IOCMDIR

Command type

This is a MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This command is only applicable to IOM. It is similar to the Card command in the IOC display where a selected port sub-level will be displayed.

Warning

Not applicable

Command syntax

Port -Enter Port level display
Parms: <PORT #> {0 TO 17}
Known port types: CONS MTD DDU MPC

Parameter definitions

Table 5-21 Parameter Definitions

PARAMETER	VALUE	DEFINITION
PORT #	0 TO 17	Identify the Port sub-level to be accessed.

Command name: QIOM in IOCMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to request information from the IOM board. Information provided includes board status, board state and downloaded file. New optional parameter, ROM, is added to the command to request and display the card configuration table stored in the IOM Flash ROM. Without the ROM parameter, regular board status information will be requested and displayed. This command is only applicable to IOM.

Warning

Not applicable

Command syntax

QIOM - Query IOM configuration and port status
Parms: [<OPTION> {ROM}]

Parameter definitions

Table 5-22 Parameter Definitions

PARAMETER	VALUE	DEFINITION
OPTION	ROM	An optional parameter to specify whether the card configuration table stored in IOM Flash ROM is displayed instead of the IOM board status information

Command name: REBOOTIOM in IOCMDIR

Command type

This is a NON-MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is a new command added to request the IOM to perform a firmware reboot restart from the Base load resided in RAM. If the optional FORCE parameter is used, it will request the IOM to perform a firmware reboot restart from the Base load resided in Flash ROM memory.

Warning

Warning will be given to alert that I/O services under this IOM will be interrupted.

Command syntax

REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE}]

Parameter definitions

Table 5-23 Parameter Definitions

PARAMETER	VALUE	DEFINITION
BOOTTYPE	FORCE	An optional parameter to specify for an IOM firmware reboot restart from Flash ROM.

Command name: DOWNLD in IOCMDIR

Command type

This is a MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This command is only applicable to IOM. It initiates the download sequence to load the IOM.

Warning

Not applicable

Command syntax

The command uses the download file specified in Table IOC unless the user specifies a download file name as a parameter.
Parms: [<FILE NAME> STRING]
[<DEVICENAME> STRING>]

Parameter definitions

Table 5-24 Parameter Definitions

PARAMETER	VALUE	DEFINITION
FILENAME	STRING	Optional parameter for load file other than datafilled in Table IOC. Valid file name is eight characters long starting with IOMxxxxx wher x is alpha-numeric value.
DEVICENAME	STRING	Optional parameter to specify where the load file is located.

Command name: TST , BSY, RTS, OFFL, STATUS, QUERY, MDN in IOCMDIR

Command type

TST, BSY, RTS, OFFL are MENU commands and STATUS, QUERY, MDN are NON-MENU commands.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE.

Command availability

This command is a RES command.

Command description

All the above commands funtion exactly as the existing commands except for change in parameters in case of IOM.

TST - test IOC or port
BSY - man busy IOC or port
RTS - return to service IOC or port
OFFL - put offline IOC or port
STATUS - query status of IOC or port
QUERY - get node number of ioc or device
MDN - get maximum device number of IOC (‘CANNOT specify PORT’)

These features also add new responses to the following commands:

1. BSY -Prompt to the user to confirm if the given IOC is currently doing firmware download. This response is only applicable to IOM.

2. TST -The card list display is modified for IOM when the TST operation fails. This response is only applicable to IOM.
3. RTS - When the PEC code of the IOM is not datafilled correctly in table IOC, attempts to RTS the IOC will fail and an error message will be returned to indicate the RTS failure is due to IOM PEC code mismatch. Also, the card list display is modified for IOM when the RTS operation fails. This response is only applicable to IOM.

Warning

Not applicable

Command syntax

TST, BSY, RTS, OFFL, STATUS, QUERY, MDN

One of the above command with the following parameters.

Existing syntax for IOC (1X61):
Parms: <Specify IOC or Port> {IOC,
PORT <Card #> {0 TO 8}
<Port on Card> {0 TO 3}}

Additional syntax for IOM (FX30):
Parms: <Specify IOC or Port> {IOC,
PORT <Port #> {0 TO 17}}

In case of MDN, only command_doc is changed since PORT parameter is not allowed.

Parameter definitions

Table 5-25 Parameter Definitions

PARAMETER(new)	VALUE	DEFINITION
Specify IOC or Port	IOC or PORT	Specify if the action is on the IOC or port level
Port #	0 TO 17	Optional parameter to specify which port for the action.

Command name: RESET in IOCMDIR

Command type

This is a NON-MENU command.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE.

Command availability

This command is a RES command.

Command description

This command funtion is exactly as the existing command except for change in parameters in case of IOM. Reset is issued to reset an IOC or its device controller.

Warning

Not applicable

Command syntax

Existing syntax for IOC (1X61):

Used to reset either IOC or card:
Parms: <Specify IOC or Port> {IOC,
PORT <Card #> {0 TO 8}}

Additional syntax for IOM (FX30):

RESET - IOC or port
Parms: <Specify IOC or Port> {IOC,
PORT <Port #> {0 TO 17}}

Parameter definitions

Table 5-26 Parameter Definitions

PARAMETER(new)	VALUE	DEFINITION
Specify IOC or Port	IOC or PORT	Specify if the action is on the IOC or port level
Port #	0 TO 17	Optional parameter to specify which port for the action.

Command name: Devtype in IOCMDIR

Command type

This is a NON-MENU command.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE.

Command availability

This command is a RES command.

Command description

This command funtion is exactly as the existing command except for change in parameters in case of IOM. This command is used to identify the device type of a particular port.

Warning

Not applicable

Command syntax

DEVTYPE - Identify IOC device type

Existing syntax for IOC (1X61):
Parms: <Card #> {0 TO 8}
<Port on Card> {0 TO 3}

Additional syntax for IOM (FX30):
Parms: <Port #> {0 TO 17}

Parameter definitions

Table 5-27 Parameter Definitions

PARAMETER(new)	VALUE	DEFINITION
Port #	0 TO 17	Parameter to specify which port for the action.

Command name: DDU in IOCMDIR

Command type

This is a NON-MENU command.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE..

Command availability

This command is a RES command.

Command description

This command is issued at the IOC or lower level to display the DDU sub-display for the specified DDU. This command funtions exactly as the existing command with additional restriction for displaying DDU on different IOC platform.

Warning

Not applicable

Command syntax

DISK - Enter Disk MTCE
Parms: <DISK# > {0 TO 9}

Parameter definitions

Table 5-28 Parameter Definitions

PARAMETER	VALUE	DEFINITION
DISK#	0 TO 9	Specify the disk number to be displayed on IOC sub-level.

Command name: MPC in IOCMDIR

Command type

This is a NON-MENU command.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE..

Command availability

This command is a RES command.

Command description

This command is issued at the IOC or lower level to display the MPC sub-display for the specified MPC. This command funtions exactly as the existing command with additional restriction for displaying MPC on different IOC platform.

Warning

Not applicable

Command syntax

Enters the MAP level for the Multi-protocol
Controller specified by unit number.
Acceptable commands for the MPC are:
RTS, BSY, OFFL, TST,
QNODE, QMPC, QLINK, QCONV
Specific to 1X89: DOWNLD.
Parms: <MPC UNIT NUMBER> {0 TO 255}

Parameter definitions

Table 5-29 Parmeter Definitions

PARAMETER	VALUE	DEFINITION
MPC UNIT NUMBER	0 TO 255	Specify theMPC number to be displayed on IOC sub-level.

Command name: BSY, RTS, OFFL, QLINK in MPCMDIR

Command type

BSY, RTS, OFFL, QLINK are MENU commands.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE.

Command availability

This command is a RES command.

Command description

All the above commands funtion exactly as the existing commands except for change in parameters and additional restrictions in case of IOM.
BSY - Put an MPC or Link in MBSY state.
RTS - RTS an MPC or Link
OFFL - Put an MPC or Link in OFFL state
QLINK - Performs query of configuartion data for a particular MPC Link

Warning

Not applicable

Command syntax

Existing syntax for IOC (1X61):

Put an MPC or Link in MBSY state. (Default MPC).
Parms: [<OPTION1> {ALL [<OPTION2> {FORCE}],
LINK <LINKNUM> {0 TO 3}
[<OPTION2> {FORCE}],
LINKS [<OPTION2> {FORCE}]}]

RTS an MPC or Link. (Default MPC).
Parms: [<OPTION> {ALL,

LINK <LINKNUM> {0 TO 3},
LINKS}]

Put an MPC or Link in OFFL state. (Default MPC).
Parms: [<OPTION> {ALL,
LINK <LINKNUM> {0 TO 3},
LINKS}]

Performs query of configuartion data for a particular MPC Link.
Parms: <LINKNUM> {2 TO 3}

New syntax for IOM (FX30):
Put an MPC or Link in MBSY state. (Default MPC).
Parms: [<OPTION2> {FORCE}]

RTS an MPC or Link. (Default MPC).

Put an MPC or Link in OFFL state. (Default MPC).

Performs query of configuartion data for a particular MPC Link.

Parameter definitions

No new parameter specified.

Table 5-30 Parameter Definitions

PARAMETER(new)	VALUE	DEFINITION

Command name: QIOMALL in PROGDIR

Command type

This is a NON-MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This command displays the IOM ports datafill information.

Warning

None

Command syntax

Display all IOM datafilled inventory in the CC.
Parms: [<OPTIONS> {AVAIL, USED}]

Parameter definitions

Table 5-31 Parameter Definitions

PARAMETER	VALUE	DEFINITION
OPTIONS	AVAIL or USED	AVAIL will display all the empty ports only and USED will display all IOM datafilled ports.

Command name: UPGIOM in IOCMDIR

Command type

This is a NON-MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This command is only applicable to IOM and is restricted to NT personnel via TOOPSUP control. This command will download the complete IOM load file as specified in the parameter and provide options for reprogramming the Flash.

Warning

This command will reprogram the on IOM board Flash memory.
Proceed with Caution.
The above warning will be displayed when command activated.

Command syntax

UPGIOM - This is a restricted command for field support personnel only.
It can be enabled via TOOLSUP.
This command forces downloading and reprograms the IOM.

Parms: <FILE NAME> STRING
[<RPGM_OPTION> {RPGM}]

Parameter definitions

Table 5-32 Parmeter Definitions

PARAMETER	VALUE	DEFINITION
FILE NAME	STRING	Valid file name is eight characters long starting with IOMxxxxx where x is alpha-numeric value.
RPGM_OPTION	RPGM	Optional parameter to indicates whether reprogramming option is specified.

Responses

Response to Port command in IOCMDIR

Response

Port Command is only applicable for IOM (FX30).
Use Card command instead.

Explanation:

This response occurs when the Port command is issued on the 1X61 IOC.

System action:

No action

User action:

No action

Response

Port -Enter Port level display
Parms: <PORT #> {0 TO 17}
Known port types: CONS MTD DDU MPC

Explanation:

This response occurs when querying the Port command.

System action:

No action

User action:

No action

Response

See DD section Figures 4, 6, 8, 10 for various IOC sub-level displays.

Explanation:

Various sub-level display will appear on the MAP screen depending on what has been datafilled for that particular port.

System action:

Display the corresonding IOC sub-level.

User action:

No action

Responses

Unknown Port 5

Explanation:

This message is displayed if the port specified (in this case, the port specified is 5) is not datafilled..

System action:

No action

User action:

No action

Response to QIOM command in IOCMDIR

Response

QIOM - Query IOM configuration and port status
Parms: [<OPTION> {ROM}]

Explanation:

This response occurs when querying the QIOM command.

System action:

No action

User action:

No action

Response

QIOM command is only applicable for IOM.

Explanation:

This response occurs when invoking the QIOM command on the non-IOM IOC hardware.

System action:

No action

User action:

No action

Response

```
Port IOC 0 Node_no: 6; status: MBSY; state: DNLDED;
Table IOC File: IOMR0001 on D00DV002
IOM load on board: IOMR0001; Auto-Load: ON
Site    Flr   Rpos  Bay_id   Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03  32    IOC          03    FX30AA
Port Info:(C-CON, M-MPC, D-DDU, T-MTD, s-SCSI, F-Fault, P-PBSY)
PORT  0  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17
      C  C  C  -  C  T  -  -  -  M  -   -   -   -   -   -   sD  sT
      .  P  P  P  .  .  .  F  .  .  .   .   .   .   .   .   .   .
```

Explanation:

This response occurs when QIOM is issued to the IOM (FX30 IOC). It contains some general information about IOM such as node number, IOM states, load file info as well as port information. Port Information refers to the port configuration and the port status. The first row under port information indicates the port configuration. If it is different from the CC MAP display, RTS of individual port is required. The second row under port information indicates the port status. The on board diagnostics will mark any hardware failure and stored the information on board.

System action:

No action

User action:

No action

Response

```
EqPEC: FX30AA;HWstream: 01;  HWissue: 01; Checksum: EF
BootName: BOOTAA01;LoadName0: IOMRAA01;   LoadName1: IOMRAA01
Release Date: 19951031;Release Time: 13:56
```

Explanation:

This response occurs when the QIOM ROM request is successfully done and the IOM card configurable table is returned and displayed to the user.

EqPEC is the PEC code of the IOM board. HWstream and HWissue are the release number of the IOM hardware. Checksum indicates the checksum of this table stored in flash. BootName reflects the bootstrap load manufactured. This bootstrap load contains the basic IOM boot-up functions and it cannot be reprogrammed. The LoadName0 and LoadName1 are the names of the base load programmed in region 0 and region 1 respectively. These load names will be changed according to the download-reprogram operation. Release Date and Release Time record the release date and time of the IOM board.

System action:

No action

User action:

No action

Response

Failed

Explanation:

This response occurs when QIOM or QIOM ROM command has failed. It can be either a communication problem with the IOM or a firmware problem occurred in the IOM.

System action:

No action

User action:

Check IOD logs for failure reasons. RESET the IOM, redownload the firmware, or replace the IOM hardware

Response

Invalid
IOC <iocno> <ioc_state>

Explanation:

This response occurs when QIOM or QIOM ROM command fails due to a invalid IOC node. The IOC number and state will be displayed to reflect the invalid node.

System action:

No action

User action:

Check the correctness of the IOC number and retry

Responses to the REBOOTIOM command in IOCMDIR

Response

REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE}]

Explanation:

This response occurs when querying the REBOOTIOM command.

System action:

No action

User action:

No action

Response

REBOOTIOM command is only applicable for IOM.

Explanation:

This response occurs when invoking the REBOOTIOM command on the non-IOM IOC hardware.

System action:

No action

User action:

No action

Response

OK

Explanation:

This response occurs when REBOOTIOM command is successfully completed.

System action:

No action

User action:

No action

Response

Failed

Explanation:

This response occurs when REBOOTIOM command has failed. It can be either a communication problem with the IOM or a firmware problem occurred in the IOM.

System action:

No action

User action:

Check IOD logs for the failure reasons. RESET the IOM, redownload the firmware, or replace the IOM hardware.

Response

Invalid
IOC <iocno> <ioc_state>

Explanation:

This response occurs when REBOOTIOM command fails due to a invalid IOC node. The IOC number and state will be displayed to reflect the invalid node.

System action:

No action

User action:

Check the correctness of the IOC number and retry

Response

May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):

Explanation:

This response occurs always to confirm on the action when REBOOTIOM command is invoked.

System action:

No action

User action:

No action

Response to DOWNLD command in IOCMDIR

Response

Downld command is only applicable for IOM (FX30).

Explanation:

This response occurs when the Downld command is issued on the 1X61 IOC version.

System action:

No action

User action:

No action

Response

This command downloads a binary file to the Input Output Module. It is only applicable to FX30 boards (IOM).

The command uses the download file specified in Table IOC unless the user specifies a download file name as a parameter.
Parms: [<FILE NAME> STRING]
[<DEVICENAME> STRING]

Explanation:

This response occurs when querying the Port command.

System action:

No action

User action:

No action

Response

FILE_ID for “IOMR0000” ON DEVICE “D000PMLOADS”
DOWNLOAD OF FILE “IOMR0000” SUCCEEDED.

FILE_ID for “IOMR0000” ON DEVICE “D000PMLOADS”
DOWNLOAD OF FILE “IOMR0000” FAILED.

FILE_ID for “IOMR0000” ON DEVICE “D000PMLOADS”
BOARD IS LOADED WITH “IOMR0001”,
Please confirm (“Yes”, “Y”, “No”, or “N”):

Explanation:

The DOWNLD command will use the file specified in table IOC as the load unless file name is specified as the optional parameters. The above are 3 possible responses as a result of issuing the DOWNLD command. Please note that the actual implementation of this command will be in CSP06. Valid file name format will be fixed 8 characters and identified as IOMRnnxx where nn is the release stream and xx is the revision number. If the board is already downloaded with a different file, the user will be prompted for confirmation. Static data of individual ports or SCSI devices on board will not be downloaded with this command. Individual port configuration will be achieved by RTS command at port level. RTS IOC will not download the complete configuration data for all ports.

System action:

The system will check for correct file name format, locate the file and sent a message to the loader to initiate the download sequence. If the board is already loaded with the same load, no action will be taken. If the board is loaded with a different load, the user will be prompted for confirmation.

User action:

Response withe ‘YES’ or ‘NO’ if prompted.

Responses

IOC must be bsy to download.

Explanation:

This message is displayed if the IOC is not man busied.

System action:

No action

User action:

No action

Response to TST, BSY, RTS, OFFL, STATUS, QUERY, MDN commands in IOCMDIR

Responses

These are all exisitng commands with the input parameters change only. See NTP 297-1001-821n Menu Commands Reference Manuals and NTP 297-1001-820n Nonmenu Commands Reference Manuals for detials.

Explanation:

See existing NTPs for details.

System action:

See exisitng NTPs for details

User action:

See existing NTPs for details

New response for the BSY command in IOCMDIR

Response

Downloading is in progress.
Please confirm (“Yes”, “Y”, “No”, or “N”):

Explanation:

This response occurs when the BSY command is requested while the IOC is downloading. The user will then be prompted to confirm. If “No” is entered, the BSY command will be aborted. If the “Yes” is entered, downloading will be aborted and the IOC will be made MANB.

System action:

No action

User action:

No action

New response for the RTS command in IOCMDIR

Response

PEC mismatches with datafill.

Explanation:

This response occurs when the RTS operation fails due to an incorrect datafill of the IOM PEC code. The PEC code datafilled in table IOC is different from the one stored inside the IOM board.

System action:

No action

User action:

Fix up the IOM PEC code datafill in table IOC

New responses for the TST, RTS commands in IOCMDIR

Response

OK
Smart connector not present

Explanation:

This response occurs when TST PORT operation succeeds even though the smart connector for the port being tested is not present. Since the smart connector for the port is not present, the TST PORT operation does not include the loopback test at the smart connector.

System action:

No action

User action:

No action

Response

```
Site  Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST  01    A05   ISME 03   32    IOC          03    FX30AA
HOST  01    A05   ISME 03   32    IOC          03    FX31
```

Explanation:

This response occurs when the RTS or TST operation fail and a card list is displayed.

System action:

No action

User action:

Check IOD logs for failure reasons. RESET the IOM, redownload the firmware, or replace the faulty hardware.

Response

```
Site  Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST  01    A05   ISME 03   32    IOC          03    FX30AA
```
Check and replace smart connector for port 3 (FX34, FX35)

Explanation:

This response occurs when the RTS or TST operation fail due to a failure in the smart connector.

System action:

No action

User action:

Check IOD logs for failure reasons. RESET the IOM, redownload the firmware, or replace the faulty smart connector.

Response to DDU command in IOCMDIR

Response

DDU -- COMMAND NOT VALID AT THIS LEVEL
Last parameter evaluated was: 1
ERROR: DDU 3 IS NOT ON THE DISPLAYED IOC.
IT IS ON IOC 2.
Enter the appropriate IOC for device display!

Explanation:

This is also an existing command with additional restriction. The above error message will be displayed when DDU command is issued across 2 different IOC platform. (i.e. 1X61 and FX30)

System action:

No action

User action:

User need to access the specified IOC for the corresponding DDU MAP sub-level display.

Response

DDU-- COMMAND NOT VALID AT THIS LEVEL
Last parameter evaluated was: 1
THIS DDU HAS NOT BEEN DATAFILLED.

Explanation:

This is also an existing command with additional restriction. The above message will be displayed when DDU is not datafilled under the new IOM sub-level. The exsitng DDU display scheme brings up the DDU sub-level with no specified values and will remain unchange for IOC sub-level..

System action:

No action

User action:

No action

Response

The rest of the responses for the DDU command do not change from the exsiting display. See NTP 297-1001-821n Menu Commands Reference Manuals and NTP 297-1001-820n Nonmenu Commands Reference Manuals for detials.

Explanation:

See existing NTPs for details.

System action:

See existing NTPs for details.

User action:

See existing NTPs for detials.

Response to MPC command in IOCMDIR

Response

MPC -- COMMAND NOT VALID AT THIS LEVEL
Last parameter evaluated was; 1
ERROR: MPC 3 IS NOT ON THE DISPLAYED IOC.
IT IS ON IOC 2.
Enter the appropriate IOC for device display!

Explanation:

This is also an existing command with additional restriction. The above error message will be displayed when MPC command is issued across 2 different IOC platform. (i.e. 1X61 and FX30)

System action:

No action

User action:

User needs to access the specified IOC for the corresponding MPC MAP sub-level display.

Response

The rest of the responses for the MPC command do not change from the exsiting display. See NTP 297-1001-821n Menu Commands Reference Manuals and NTP 297-1001-820n Nonmenu Commands Reference Manuals for detials.

Explanation:

See existing NTPs for details.

System action:

See existing NTPs for details.

User action:

See existing NTPs for detials.

Response to BSY, RTS, OFFL, QLINK commands in MPCMDIR

Responses

These are all exisitng commands without the input parameter only. See NTP 297-1001-821n Menu Commands Reference Manuals and NTP 297-1001-820n Nonmenu Commands Reference Manuals for detials.

Explanation:

See existing NTPs for details.

System action:

See exisitng NTPs for details

User action:

See existing NTPs for details

New response to BSY command in MPCMDIR

REQUEST INVALID FOR THIS UNIT.
NO LINK IS DATAFILLED ON THIS MOC.

Explanation:

MPC cannot be man busyed without its link being datafilled. This is a new restriction applicable only to IOM MPC since they are one single functional unit in IOM.

System action:

No action

User action:

Datafill the link prior to Man-bsy the MPC and subsequently bringing up the MPC.

Responses to QIOMALL in PROGDIR

Response:

1. Default response: QIOMALL

This command only reports IOM ports information.

*** IOC 0 NOT DISPLAYED ***

*** IOC 1 NOT DISPLAYED ***

*** IOC 2 NOT DISPLAYED ***

*** IOC 3 NOT DISPLAYED ***

```
IOC  PORT DEVICE   DEV_ID
---  ---- ------   ------
 5    0   -         -
 5    1   -         -
 5    2   -         -
 5    3   -         -
 5    4   -         -
 5    5   -         -
 5    6   -         -
 5    7   -         -
 5    8   -         -
 5    9   -         -
 5   10   CONS  IOMMAP
 5   11    -         -
 5   12    -         -
 5   13    -         -
 5   14    -         -
 5   15    -         -
 5   16   DDU        7
 5   17   MTD        7
```

2. AVAIL option response: QIOMALL AVAIL

This command only reports IOM ports information.

*** IOC 0 NOT DISPLAYED ***

*** IOC 1 NOT DISPLAYED ***

*** IOC 2 NOT DISPLAYED ***

*** IOC 3 NOT DISPLAYED ***

```
IOC  PORT DEVICE   DEV_ID
---  ---- ------   ------
 5    0   -         -
 5    1   -         -
 5    2   -         -
 5    3   -         -
 5    4   -         -
 5    5   -         -
 5    6   -         -
 5    7   -         -
 5    8   -         -
 5    9   -         -
 5   11   -         -
 5   12   -         -
 5   13   -         -
 5   14   -         -
 5   15   -         -
```

3. USED option response: QIOMALL USED

This command only reports IOM ports information.

*** IOC 0 NOT DISPLAYED ***

*** IOC 1 NOT DISPLAYED ***

*** IOC 2 NOT DISPLAYED ***

*** IOC 3 NOT DISPLAYED ***

```
IOC  PORT DEVICE   DEV_ID
 5   10   CONS  IOMMAP
 5   16   DDU         7
 5   17   MTD         7
```

Explanation:

Display IOM ports datafilled information. Please note that this command is only applicable to IOM and the old version of IOC (1x61) will not be displayed as shown in IOC 0-3 above.

System action:

No action

User action:

No action

Responses to UPGIOM in IOCMDIR

Response:

UPGIOM command is only applicable for IOM

Explanation:

This response occurs when an IOC (non-IOM type) is posted while executed UPGIOM command.

System action:

No action

User action:

No action

Response:

User count exceeded; UPGIOM in use by XXX or UPGIOM access is restricted.

Explanation:

These responses occur when fail under TOOLSUP control.

System action:

No action

User action:

Wait till the other user finished reprogramming or
Enable the command via TOOLSUP.

Response:

Load file must be listed prior to command activation or
IOM must be Mbsy to download or
IOM is being downloaded, try again later!

Explanation:

These responses occur when the load file FID cannot be located or the IOM is not in the correct state to initiate download.

System action:

No action

User action:

List the load file and try again or
Mbsy the IOC or
Wait for the IOM downloading to be finished.

Response:

This IOC is executing the same load file IOMRAA01. or
This IOC is executing a different Base load IOMRAB01. or
This IOC is executing a different Application load IOMRAA02.
or
This IOC is executing a different load IOMHAA01.
Do you want to continue?

Explanation:

These responses occur after the standard warning message and will prompt the user to confirm downloading.

System action:

No action

User action:

Yes or No. Yes to proceed with downloading and No to return from the command.

Response:

Note: Reprogram option RPGM is not selected.
Download completed. Do you want to reprogram the IOM?

Explanation:

This response occurs when the user does not specify the rpgm option and downloading is completed.

System action:

No action

User action:

Yes or No. Yes to proceed with reprogramming and No to return from the command.

Response:

DO NOT REMOVE BOARD DURING REPROGRAMMING!

Explanation:

This response reminds the user do not move the IOM hardware during reprogramming.

System action:

No action

User action:

No action

Response:

Reprogramming xx%

Explanation:

This response occurs when reprogramming the IOM. Periodic display of percentage reprogrammed will show up on the user screen.

System action:

No action

User action:

No action

Response:

Reprogram IOC x successful or
Reprogram fail, check IOM hardware! or
Download fail

Explanation:

These responses are the possible results of the command execution.

System action:

No action

User action:

No action

Notes

REBOOTIOM, QIOM, DOWNLD, UPGIOM, QIOMALL commands mentioned in this document are IOM specific commands. When used in IOC platform, these commands will fail with error messages. On the other hand, the rest of the commands are applicable to both IOM or non-IOM IOC platforms.

Examples

Examples are not provided since most of them are existing commands and no change has been done to the output or system actions. As for the new commands, here are the examples.

```
> Q REBOOTIOM
REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE} ]

> REBOOTIOM
REBOOTIOM command is only applicable for IOM.

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
```

```
> Y
OK

> REBOOTIOM FORCE
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
OK

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> N

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
Failed

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
Invalid
IOC 1 OFFL

> Q QIOM
REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE} ]

> QIOM
QIOM command is only applicable for IOM.

> QIOM
Port IOC 0 Node_no: 6; status: MBSY; state: DNLDED;
Table IOC File: IOMR0001 on D00DV002
IOM load on board: IOMR0001; Auto-Load: ON
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
Port Info:(C-CON, M-MPC, D-DDU, T-MTD, s-SCSI, F-Fault, P-PBSY)
PORT  0  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17
      C  C  C  -  C  T  -  -  -  M  -   -   -   -   -   -   sD  sT
      .  P  P  .  .  .  .  F  .  .  .   .   .   .   .   .   .   .

> QIOM ROM
EqPEC: FX30AA;  HWstream: 01;  HWissue: 01; Checksum: EF
BootName: IOMRAA01;  LoadName0: IOMRAA01; LoadName1: IOMRAA01
Manufacture Date: 19951031;  Manufacture Time: 13:56

> QIOM
Failed

> QIOM
Invalid
IOC 1 OFFL

> BSY IOC
Downloading is in progress.
Please confirm (“Yes”, “Y”, “No”, or “N”):
```

```
> Y
OK

> RTS IOC
Failed
PEC mismatches with datafill.

> RTS IOC
Failed
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31A

> TST PORT 3
Failed
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
```
Check and replace smart connector for port 3 (FX34, FX35)

```
> TST PORT 2
OK
Smart connector not present

%%
%% Reprogram IOC 3 without RPGM option
%%
> UPGIOM IOMRAA01

Warning:
This command will reprogram the on IOM board Flash memory.
Proceed with Caution.
This IOC is executing the same load file IOMRAA01.
Do you want to continue?
Please confirm ("Yes", "Y", "No", or "N"):
> Y

Note: Reprogram option RPGM is not selected.

DOWNLOAD COMPLETED, DO YOU WANT TO REPROGRAM THE IOM?
Please confirm ("Yes", "Y", "No", or "N"):
> Y

DO NOT REMOVE BOARD DURING REPROGRAMMING!
REPROGRAMMING: 10%
...
REPROGRAMMING: 90%
REPROGRAM IOC 3 SUCCESSFUL.

> ....return prompt to the user.

%%
%% Reprogram IOC 3 with RPGM option
%%
> UPGIOM IOMRAA01 RPGM

Warning:
This command will reprogram the on IOM board Flash memory.
Proceed with Caution.
This IOC is executing a different load file IOMHAA01.
```

```
Do you want to continue?
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y

DO NOT REMOVE BOARD DURING REPROGRAMMING!
REPROGRAMMING: 10%
...
REPROGRAMMING: 90%
REPROGRAM IOC 3 SUCCESSFUL.
> ....return prompt to the user.
```

Alarms

There is no new alarm added in this feature.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

Alarms

There is no new alarm added in this feature.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG4409mm.ab06

Directories

There is no change to the exisitng directory with this feature.

Table of New/Modifed Directories

Table 5-33 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

```
  CM          MS          IOD          Net     PN      CCS      Lns      Trks      Ext      APPL
NoSync         .        NO AMA          .     1RCC       .        .    119 CC    4 Maj    DRMON
  M                        *C*                *C*                      *C*       M        *C*
ATU                                           SysB    ManB     OffL     CBsy      ISTb     InSv
0   Quit                   PM                    3       0       50        5         7       11
2   Post_                  ATU                   1       0        3        0         0        4
3   ListSet
4                  ATU          0      InSv
5   TRNSL          QueryPM
6   TST               PM TYPE: MTM    PM NO.: 0    NODE NO.: 101
7   BSY            PM_STATUS: InSv   NODE_STATUS: OK.FALSE. CHKSUM: #0240
8   RTS            PP LOAD: VALID  PP EXECS: VALID    FNAME: MTMKA02
9   OffL           PMS EQUIPPED: 76     PM INT. #: 6
10  LoadPM_           Site      Flr       RPos    Bay_id      Shf   Description          Slot      EqPEC
11  Disp_             HOST      00         C04    TME 001     55    MTM : 004             06       FX46AA
12  Next_          TM Entries: 0 TO 25
13
14  QueryPM
15
16
17
18
    WOODYLO
Time  09:25   >
```

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE.

Command availability

This command is a RES command.

Command description

All the above commands funtion exactly as the existing commands except for change in parameters and additional restrictions in case of IOM.
BSY - Put an MPC or Link in MBSY state.
RTS - RTS an MPC or Link
OFFL - Put an MPC or Link in OFFL state
QLINK - Performs query of configuartion data for a particular MPC Link

Warning

Not applicable

Command syntax

Existing syntax for IOC (1X61):

Put an MPC or Link in MBSY state. (Default MPC).
Parms: [<OPTION1> {ALL [<OPTION2> {FORCE}],
LINK <LINKNUM> {0 TO 3}
[<OPTION2> {FORCE}],
LINKS [<OPTION2> {FORCE}]}]

RTS an MPC or Link. (Default MPC).
Parms: [<OPTION> {ALL,
LINK <LINKNUM> {0 TO 3},
LINKS}]

Put an MPC or Link in OFFL state. (Default MPC).
Parms: [<OPTION> {ALL,
LINK <LINKNUM> {0 TO 3},
LINKS}]

Performs query of configuartion data for a particular MPC Link.
Parms: <LINKNUM> {2 TO 3}

New syntax for IOM (FX30):

Put an MPC or Link in MBSY state. (Default MPC).
Parms: [<OPTION2> {FORCE}]

RTS an MPC or Link. (Default MPC).

Put an MPC or Link in OFFL state. (Default MPC).

Performs query of configuartion data for a particular MPC Link.

Parameter definitions

No new parameter specified.

Table 5-35 Parameter Definitions

PARAMETER(new)	VALUE	DEFINITION

Command name: MPC

Command type

This is a NON-MENU command.

Command target

The command target is for both NT40 and SUPERNODE. However, the modification only applies to SUPERNODE..

Command availability

This command is a RES command.

Command description

This command is issued at the IOC or lower level to display the MPC sub-display for the specified MPC. This command funtions exactly as the existing command with additional restriction for displaying MPC on different IOC platform.

Warning

Not applicable

Command syntax

Enters the MAP level for the Multi-protocol
Controller specified by unit number.
Acceptable commands for the MPC are:
RTS, BSY, OFFL, TST,
QNODE, QMPC, QLINK, QCONV

Specific to 1X89: DOWNLD.
Parms: <MPC UNIT NUMBER> {0 TO 255}

Parameter definitions

Table 5-36 Parameter Definitions

PARAMETER	VALUE	DEFINITION
MPC UNIT NUMBER	0 TO 255	Specify theMPC number to be displayed on IOC sub-level.

Responses

Response to BSY, RTS, OFFL, QLINK commands

Responses

These are all exisitng commands without the input parameter only. See NTP 297-1001-821n Menu Commands Reference Manuals and NTP 297-1001-820n Nonmenu Commands Reference Manuals for detials.

Explanation:

See existing NTPs for details.

System action:

See exisitng NTPs for details

User action:

See existing NTPs for details

Response to BSY command

REQUEST INVALID FOR THIS UNIT.
NO LINK IS DATAFILLED ON THIS MOC.

Explanation:

MPC cannot be man busyed without its link being datafilled. This is a new restriction applicable only to IOM MPC since they are one single functional unit in IOM.

System action:

No action

User action:

Datafill the link prior to Man-bsy the MPC and subsequently bringing up the MPC.

Response to MPC command

Response

MPC -- COMMAND NOT VALID AT THIS LEVEL
Last parameter evaluated was; 1
ERROR: MPC 3 IS NOT ON THE DISPLAYED IOC.
IT IS ON IOC 2.
Enter the appropriate IOC for device display!

Explanation:

This is also an existing command with additional restriction. The above error message will be displayed when MPC command is issued across 2 different IOC platform. (i.e. 1X61 and FX30)

System action:

No action

User action:

User needs to access the specified IOC for the corresponding MPC MAP sub-level display.

Response

The rest of the responses for the MPC command do not change from the exsiting display. See NTP 297-1001-821n Menu Commands Reference Manuals and NTP 297-1001-820n Nonmenu Commands Reference Manuals for detials.

Explanation:

See existing NTPs for details.

System action:

See existing NTPs for details.

User action:

See existing NTPs for detials.

Notes

The exact display of the above commands will be finalized in CSP06 IOM features.

Examples

Example is not provided since most of them are existing commands and no change has been done to the output or system actions.

Alarms

There is no new alarm added in this feature.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG4453mm.aa05

Directories

CI increments:

MAPCI

MTC - MTC Directory

PM - PM Directory

Table of New/Modified Directories

Table 5-37 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
TM DIR	CHANGED		BOTH	RES

Accessing directory: TM DIR

To access

MAPCI; MTC; PM; POST <PM>

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-38 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QUERYPM	CHANGED		TM, MTM, ATU DIR
TRANSL	CHANGED		MTM DIR

Command name: QUERYPM

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The example of information provided by QUERYPM command is shown below (see copy of the MAP session).

User is provided with the PM status, equipment PEC, PM node No.

Example TMINV Tuple:

ATU 0 TME 5 32 2 D 15 3 25 FX46AA ATUKA02 TM8EX COMPACT MTM 1 5 FX48AA DATUAK02

Warning

N.A

Command syntax

QUERYPM

Parameter definitions

None changed

Table 5-39 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: TRNSL

Command type

MENU

Command target

Both NT40 and SUPERNODE

Command availability

RES

Command description

User can either type the “TRNSL P” or “TRNSL C” command, or enter the TRNSL from the MAP menu.

The example of information provided by TRNSL C command is shown below (see copy of the MAP session).

```
  CM          MS      IOD          Net          PM      CCS        Lns          Trks        Ext          APPL
NoSync         .      NO AMA        .          1RCC     .          .          122 CC     4 Maj        DRMOM
  M                     *C*                     *C*                                      *C*          M          *C*
MTM                                             SysB    ManB       OffL         CBsy       ISTb         InSv
  0  Quit              PM                         3       0          50           5          8            10
  2  Post_             MTM                        1       0          3            0          0            4
  3  ListSet
  4                 MTM        0         InSv
  5  TRNSL          TRNSL      c
  6  TST            LINK    0: NET 0  1  2;CAP:MS;STATUS:OK                ;MsgCond:OPN
  7  BSY            LINK    0: NET 1  1  2;CAP:MS;STATUS:OK                ;MsgCond:OPN
  8  RTS
  9  OffL
 10  LoadPM_
 11  Disp_
 12  Next_
 13
 14  QueryPM
 15
 16
 17
 18
  WOODYLO
Time  09:27   >
```

The TRNSL P command is for the ISM only.

Warning

N.A

Command syntax

Unchanged.

If user enters TRNSL command only, he will be prompted by the MAP to enter the C or P parameter:

Next par is: <FUNCTION> {P,

C}

Enter: <FUNCTION>

Parameter definitions

None changed

Table 5-40 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

see 7.2.2.4

see 7.2.3.4

Notes

Examples

Alarms

N.A

Alarm name:

N.A

Conditions required to raise the alarm

N.A

Duration of the alarm

N.A

AG4652mm.aa08

Directories

Table of New/Modified Directories

Table 5-41 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PRADCH	CHANGED		BOTH	RES
LTPDATA	CHANGED		BOTH	RES

Accessing directory:

To access

MAPCI;MTC;TRKS;TTP;PRADCH

MAPCI;MTC;LNS;LTP;LTPDATA

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-42 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
EQUIP	CHANGED		PRADCH
EQUIP	CHANGED		LTPDATA

Command name: EQUIP

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

EQUIP allows the user to reserve a BRI ISDN line card or two DS-0 channels for use in DTA monitoring. The BRI ISDN line card must reside on either an LCME or LCMI and must be datafilled as HASU in table LNINV and have a line status of INB. The DS-0 channels must be provisioned for 64kb/s clear transmission and must reside on one of the following peripheral types:

- DTCI
- LTC
- LGC
- DTC
- RCC2
- PDTC

The EQUIP command allows the monitoring equipment to be unreserved using the RESET option. A QUERY option also exists with the EQUIP command. This option displays the status of DTA connections which are equipped and active, or the status of DTA connections for the entire DMS switch regardless of state if the QUERY ALL option is used. The status of a DTA connection is active (shown by a '.') if all the peripherals involved in the connection are inservice and the connections have been made. The status is busy (shown by 'BSY') if one of the peripherals involved in the connection is out of service. The status is inactive (shown by a '-') if one of the peripherals involved in the DTA connection NACKS (no acknowledgment) the connection request.

Warning

The resources reserved for DTA cannot be used for any other purposes until they are released.

Command syntax

This applies for TTP (PRADCH) and LTP (LTPDATA) MAP levels in all loads having DTA.

In the existing command syntax the following changes has been made:

- The existing equipment parameter “DS1” changed to “CARRIER”

```
 Existing: Parms: <equipment> {DS1 <xpm> {DTCI {<xpmno> {0  TO 511},
New: Parms: <equipment> {CARRIER <xpm> {DTCI {<xpmno> {0  TO  511},
```

- Anew parameter “PDTC” added after XPM “SMU” parameter.

The new command syntax is:

```
EQUIPment - Define monitor equipment for ISDN PRI
Parms: <equipment> {CARRIER <xpm> {DTCI {<xpmno> {0  TO 511},
                                        <port> {0 TO 19},
                                        <upchnl> {1 TO 24},
                                        <downchnl> {1 to 24}}
                                   LTC {<xpmno> {0 TO 511},
                                        <port> {0 TO 19},
                                        <upchnl> {1 TO 24},
                                        <downchnl> {1 to 24}}
                                   LGC {<xpmno> {0  TO 511},
                                        <port> {0 TO 19},
                                        <upchnl> {1 TO 24},
                                        <downchnl> {1 to 24}}
                                   RCC2 {<xpmno> {0 TO 511},
                                        <port> {0 TO 19},
                                        <upchnl> {1 TO 24},
                                        <downchnl> {1 to 24}}
                                    SMU {<xpmno> {0 TO 511},
                                        <port> {0 TO 19},
                                        <upchnl> {1 TO 24},
                                        <downchnl> {1 to 24}
                                   PDTC {<xpmno> {0  TO 511},
                                        <port> {0 TO 15},
                                        <upchnl> {1 TO 3},
                                        <downchnl> {1 to 31}}}
                          LEN [<SITE> STRING]
                               <frame> {0 TO 511}
                               <unit> {0 TO 9}
                               <DRAWER> {0 TO 31}
                               <CIRCUIT> {0 TO 99},
                          QUERY [<all> {ALL}],
                          RESET <equipno> {1 TO 20}}
```

Parameter definitions

Table 5-43 Parameter Definitions

PARAMETER	VALUE	DEFINITION
equipment	CARRIER LEN QUERY RESET	Selects which operation is being performed. A CARRIER or LEN can be reserved as DTA monitoring equipment. QUERY provides information on DTA equipment currently reserved or connected. RESET frees monitoring equipment.
xpm	DTCI LTC LGC DTC RCC2 PDTC	Defines the type of node the carrier (which is used as monitoring equipment) resides on.
xpmno	0 TO 511	Peripheral module number
port	0 to 47	The XPM pside port to which the test equipment is attached. For standard XPM's, the range is 0 to 19. For RCC2 the range is 0 to 47.
upchnl	1 to 24 or 1 to 31	The timeslot on the trunk which carries the upstream data.
downchnl	1 to 24 or 1 to 31	The timeslot on the trunk which carries the downstream data.
site	STRING	LCM string name (optional).
frame	0 to 511	LCM frame number.
unit	0 to 9	LCM unit number.
drawer	0 to 31	LCM drawer number.
circuit	0 to 99	LCM circuit number.

Table 5-43 Parameter Definitions

PARAMETER	VALUE	DEFINITION
equipno	1 to 20	The number returned when the monitoring equipment was originally reserved.
ALL		Specifies that ALL DTA connections are to be queried regardless of what their state is (optional).

Responses

New MAP responses provided for PCM30 type trunks from MAP LTP and TTP levels, and some table control MAP responses modified so that they are good for both DS1 and PCM30 type trunks.

Response

LTP LTPDATA and for TTP PRADCH level EQUIP command new responses:

```
    ‘PCM30 is not in an XPM PSIDE inventory table.’ ,
     ‘PCM30 is not equipped in table CARRMTC.       ’ ,
     ‘PCM30 channel(s) in use for TRUNK.’ ,
     ‘PCM30 used for a REMOTE.’ ,
     ‘Carrier datafill error,PCM30 unsuitable for DTA.’
     ‘DTA CONNECT command does not support the POSTd
          monitor circuit.’,
     ‘Failed to translate CPID to PM type ‘
```

Explanation:

Fault messages for DTA EQUIP command when trying to equip PCM30 type trunks for DTA connection and it fails.

System Action:

In case of failure the selected circuits are returned to its previous state.

User Action:

Correct the problem and try again or use different circuit.

Response

LTP LTPDATA and for TTP PRADCH level CONNECT command response changed:

```
    From: Monitor DS1 not inservice, RTS the carrier and
           retry command.
```

```
To: Monitor not inservice, RTS the carrier and
    retry command.
```

Explanation:

The existing response is modified so that it is good for DS1 and PCM30 type trunks.

System Action:

No change

User Action:

No change.

Response

Ttrunk subgroup data table existing output message response changed (ISDN_SUBGROUP_WRITE in ISDNTCI):

```
Changed from: DS1 is in use for DTA.
to: Facility is in use for DTA.
```

Explanation:

The existing response is modified so that it is good for DS1 and PCM30 type trunks.

System Action:

No change

User Action:

No change

Response

Trunk group data table existing output message modified (in TRUNK_MEMBER_WRITE proc in TRKTCI mod.) :

```
Changed from: DS1 IS IN USE FOR DTA
          to: FACILITY IS IN USE FOR DTA
```

Explanation:

The existing response is modified so that it is good for DS1 and PCM30 type trunks.

System Action:

No change

User Action:

No change

Response

In LTCPSINV table in the LTC_PS_WRITE_INV proc existing message modified.:

```
       Changed from: DTA is making use of DS1 on port no=
           to: DTA is making use of facility on port no=
```

Explanation:

The existing response is modified so that it is good for DS1 and PCM30 type trunks.

System action:

No change

User action:

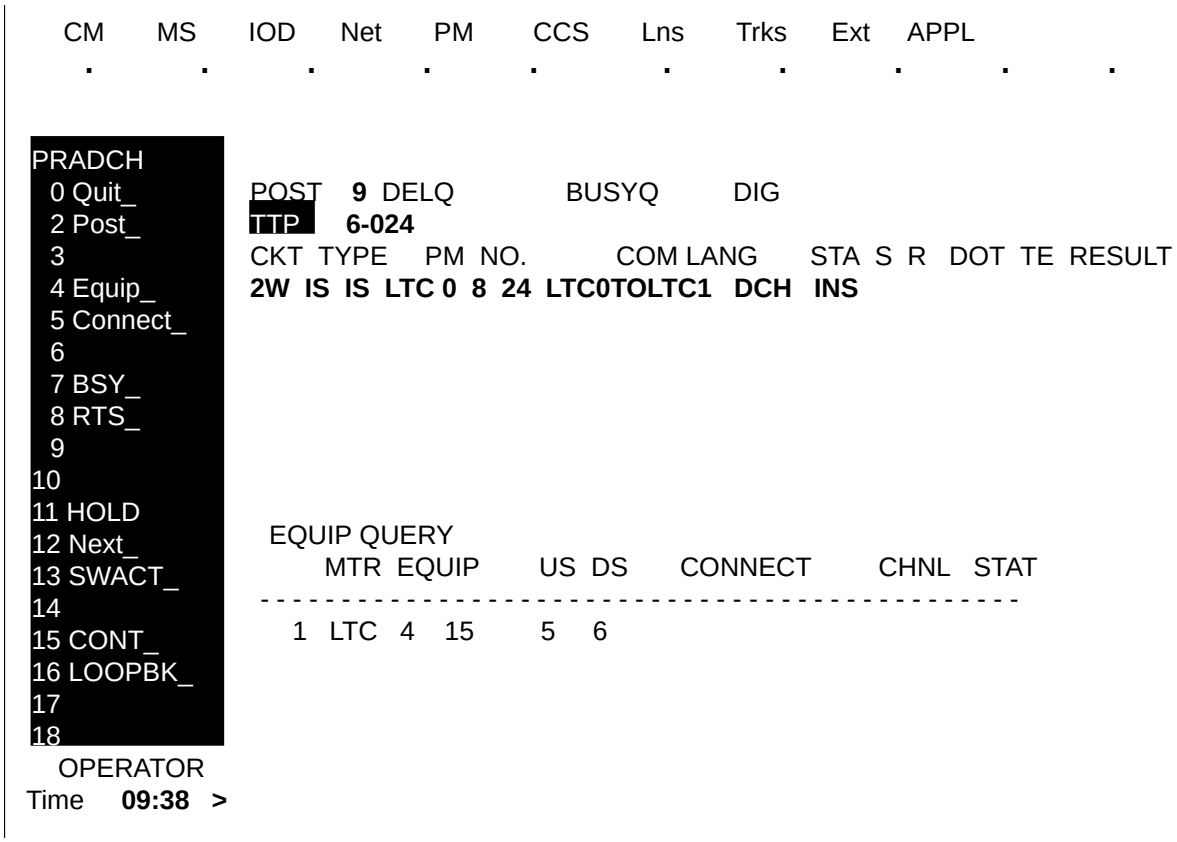
No change

Notes

Examples

The figure entitled “EQUIP QUERY ALL” on page 54 shows what is displayed at the PRADCH level after two DS-0 channels have been successfully reserved for DTA usage and the DTA connections are then queried. This example shows LTC 4 Port 15 channel 5 reserved as an upstream DTA monitor and LTC 4 Port 15 channel 6 reserved as a downstream DTA monitor.

Figure 5-1 EQUIP QUERY ALL



Alarms

Alarm name:

Conditions required to raise the alarm

NA

Duration of the alarm

NA

AG4880mm.aa04

Directories

There is 1 new command added to the CI directory and 1 new hidden command added to MAPCI IOC level.

Table of New/Modified Directories

Table 5-44 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	CHANGED		SuperNode	RES
IOCMDIR	CHANGED		SuperNode	RES

Accessing directory: PROGDIR

There is no change to the existing method of accessing the directory.

To access

Default directory - no command required.

To return to CI

No action required.

Accessing directory: IOCMDIR

There is no change to the existing method of accessing the directory.

To access

MAPCI;MTC;IOD;IOC x where x is the IOC number.

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-45 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QIOMALL	NEW		PROGDIR
UPGIOM	NEW		IOCMDIR

Command name: QIOMALL

Command type

This is a NON-MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This command displays the IOM ports datafill information.

Warning

None

Command syntax

Display all IOM datafilled inventory in the CC.
Parms: [<OPTIONS> {AVAIL, USED}]

Parameter definitions

Table 5-46 Parameter Definitions

PARAMETER	VALUE	DEFINITION
OPTIONS	AVAIL or USED	AVAIL will display all the empty ports only and USED will display all IOM datafilled ports.

Command name: UPGIOM

Command type

This is a NON-MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This command is only applicable to IOM and is restricted to NT personnel via TOOPSUP control. This command will download the complete IOM load file as specified in the parameter and provide options for reprogramming the Flash.

Warning

Warning:
This command will reprogram the on IOM board Flash memory.
Proceed with Caution.
The above warning will be displayed when command activated.

Command syntax

UPGIOM - This is a restricted command for field support personnel only.
It can be enabled via TOOLSUP.
This command forces downloading and reprograms the IOM.

Parms: <FILE NAME> STRING
[<RPGM_OPTION> {RPGM}]

Parameter definitions

Table 5-47 Parameter Definitions

PARAMETER	VALUE	DEFINITION
FILE NAME	STRING	Valid file name is eight characters long starting with IOMxxxxx where x is alpha-numeric value.
RPGM_OPTION	RPGM	Optional parameter to indicates whether reprogramming option is specified.

Responses

Responses to QIOMALL

Response:

1. Default response: QIOMALL

```
This command only reports IOM ports information.

*** IOC  0 NOT DISPLAYED ***

*** IOC  1 NOT DISPLAYED ***

*** IOC  2 NOT DISPLAYED ***

*** IOC  3 NOT DISPLAYED ***

IOC  PORT DEVICE   DEV_ID
---  ---- ------   ------
  5    0    -           -
  5    1    -           -
  5    2    -           -
  5    3    -           -
  5    4    -           -
  5    5    -           -
  5    6    -           -
  5    7    -           -
  5    8    -           -
  5    9    -           -
  5   10   CONS  IOMMAP
  5   11    -           -
  5   12    -           -
```

```
  5   13    -           -
  5   14    -           -
  5   15    -           -
  5   16   DDU          7
  5   17   MTD          7
```

2. AVAIL option response: QIOMALL AVAIL

```
This command only reports IOM ports information.

*** IOC  0 NOT DISPLAYED ***

*** IOC  1 NOT DISPLAYED ***

*** IOC  2 NOT DISPLAYED ***

*** IOC  3 NOT DISPLAYED ***

IOC  PORT DEVICE   DEV_ID
---  ---- ------   ------
  5    0    -           -
  5    1    -           -
  5    2    -           -
  5    3    -           -
  5    4    -           -
  5    5    -           -
  5    6    -           -
  5    7    -           -
  5    8    -           -
  5    9    -           -
  5   11    -           -
  5   12    -           -
  5   13    -           -
  5   14    -           -
  5   15    -           -
```

3. USED option response: QIOMALL USED

```
This command only reports IOM ports information.

*** IOC  0 NOT DISPLAYED ***

*** IOC  1 NOT DISPLAYED ***

*** IOC  2 NOT DISPLAYED ***

*** IOC  3 NOT DISPLAYED ***
```

```
IOC  PORT DEVICE   DEV_ID
  5   10   CONS  IOMMAP
  5   16   DDU          7
  5   17   MTD          7
```

Explanation:

Display IOM ports datafilled information. Please note that this command is only applicable to IOM and the old version of IOC (1x61) will not be displayed as shown in IOC 0-3 above.

System action:

No action

User action:

No action

Responses to UPGIOM

Response:

UPGIOM command is only applicable for IOM

Explanation:

This response occurs when an IOC (non-IOM type) is posted while executed UPGIOM command.

System action:

No action

User action:

No action

Response:

User count exceeded; UPGIOM in use by XXX or
UPGIOM access is restricted.

Explanation:

These responses occur when fail under TOOLSUP control.

System action:

No action

User action:

Wait till the other user finished reprogramming or
Enable the command via TOOLSUP.

Response:

Load file must be listed prior to command activation or
IOM must be Mbsy to download or
IOM is being downloaded, try again later!

Explanation:

These responses occur when the load file FID cannot be located or the IOM is not in the correct state to initiate download.

System action:

No action

User action:

List the load file and try again or
Mbsy the IOC or
Wait for the IOM downloading to be finished.

Response:

This IOC is executing the same load file IOMRAA01. or
This IOC is executing a different Base load IOMRAB01. or
This IOC is executing a different Application load IOMRAA02.
or
This IOC is executing a different load IOMHAA01.

Do you want to continue?

Explanation:

These responses occur after the standard warning message and will prompt the user to confirm downloading.

System action:

No action

User action:

Yes or No. Yes to proceed with downloading and No to return from the command.

Response:

Note: Reprogram option RPGM is not selected.
Download completed. Do you want to reprogram the IOM?

Explanation:

This response occurs when the user does not specify the rpgm option and downloading is completed.

System action:

No action

User action:

Yes or No. Yes to proceed with reprogramming and No to return from the command.

Response:

DO NOT REMOVE BOARD DURING REPROGRAMMING!

Explanation:

This response reminds the user do not move the IOM hardware during reprogramming.

System action:

No action

User action:

No action

Response:

Reprogramming xx%

Explanation:

This response occurs when reprogramming the IOM. Periodic display of percentage reprogrammed will show up on the user screen.

System action:

No action

User action:

No action

Response:

Reprogram IOC x successful or
Reprogram fail, check IOM hardware! or
Download fail

Explanation:

These responses are the possible results of the command execution.

System action:

No action

User action:

No action

Notes

None

Examples

1. Reprogram IOC 3 without RPGM option

```
> UPGIOM IOMRAA01

Warning:
This command will reprogram the IOM board Flash memory.
Proceed with Caution.
```

```
This IOC is executing the same load file IOMRAA01.
Do you want to continue?
Please confirm (“Yes”, “Y”, “No”, or “N”):

> Y

Note: Reprogram option RPGM is not selected.

DO YOU WANT TO REPROGRAM THE IOM AFTER FILE IS DOWNLOADED?
Please confirm (“Yes”, “Y”, “No”, or “N”):

> Y

DO NOT REMOVE BOARD DURING REPROGRAMMING!
REPROGRAMMING: 10%
...
REPROGRAMMING: 90%
REPROGRAM IOC 3 SUCCESSFUL.

> ....return prompt to the user.
```

2. Reprogram IOC 3 with RPGM option

```
> UPGIOM IOMRAA01 RPGM

Warning:
This command will reprogram the IOM board Flash memory.
Proceed with Caution.
This IOC is executing a different load file IOMHAA01.
Do you want to continue?
Please confirm (“Yes”, “Y”, “No”, or “N”):

> Y

DO NOT REMOVE BOARD DURING REPROGRAMMING!
REPROGRAMMING: 10%
...
REPROGRAMMING: 90%
REPROGRAM IOC 3 SUCCESSFUL.

> ....return prompt to the user.
```

Alarms

Not applicable

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG4884mm.aa07

Directories

Table of New/Modified Directories

Table 5-48 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
IOCMDIR	CHANGED		SUPERNODE	RES
TAPEMDIR	CHANGED		SUPERNODE	RES
TTYMDIR	CHANGED		SUPERNODE	RES
DISKMDIR	CHANGED		SUPERNODE	RES

Accessing directory:

IOCMDIR, TAPEMDIR, TTYMDIR, DISKMDIR

There is no change to the existing method of accessing the directory

To access

To access IOCMDIR:
> MAPCI;MTC;IOD;IOC x % where x is the IOC number

To access TAPEMDIR, TTYMDIR, DISKMDIR:
> MAPCI:MTC;IOD;IOC x;PORT y % where x is the IOC no.
% where y is the port no. for MTD,
% TC, or DDU.

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-49 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
REBOOTIOM	NEW		IOCMDIR
QIOM	CHANGED		IOCMDIR
BSY	CHANGED		IOCMDIR
RTS	CHANGED		IOMDIR
TST	CHANGED		IOMDIR
RTS	CHANGED		TAPEMDIR
TST	CHANGED		TAPEMDIR
RTS	CHANGED		TTYMDIR
TST	CHANGED		TTYMDIR
RTS	CHANGED		DISKMDIR‘
TST	CHANGED		DISKMDIR
START	CHANGED		DISKMDIR
STOP	CHANGED		DISKMDIR

Command name:

REBOOTIOM

Command type

This is a NON-MENU command.

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is a new command added to request the IOM to perform a firmware reboot restart from the Base load resided in RAM. If the optional FORCE parameter is used, it will request the IOM to force a firmware reboot restart from the Base load resided in Flash ROM memory.

Warning

Warning will be given to alert that I/O services under this IOM will be interrupted.

Command syntax

REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE}]

Parameter definitions

Table 5-50 Parameter Definitions

PARAMETER	VALUE	DEFINITION
BOOTTYPE	FORCE	An optional parameter to force an IOM firmware reboot restart from Flash ROM.

Command name:

QIOM

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to request information from the IOM board. Information provided includes board status, board state and downloaded file. New optional parameter, ROM, is added to the command to request and display the card configuration table stored in the IOM Flash ROM. Without the ROM parameter, regular board status information will be requested and displayed. This command is only applicable to IOM.

Warning

Not applicable

Command syntax

QIOM - Query IOM configuration and port status
Parms: [<OPTION> {ROM}]

Parameter definitions

Table 5-51 Parameter Definitions

PARAMETER	VALUE	DEFINITION
OPTION	ROM	An optional parameter to specify whether the card configuration table stored in IOM Flash ROM is displayed instead of the IOM board status information

Command name:

BSY

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to do a manual busy to the IOC. This feature only adds a new response to this command which is to prompt to the user to confirm if the given IOC undergoes downloading. This command is only applicable to IOM.

Warning

Warning will be returned when the IOC undergoes downloading and someone is trying to MANB the IOC.

Command syntax

Existing syntax for IOC (1X61):
BSY - man busy IOC or port
Parms: <Specify IOC or Port> {IOC,
PORT <Card #> {0 TO 8}
<Port on Card> {0 TO 3}}

Existing syntax for IOC (FX30):
BSY - man busy IOC or port
Parms: <Specify IOC or Port> {IOC,
PORT <port #> {0 TO 17}}

Parameter definitions

Table 5-52 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Specify IOC or Port	IOC or PORT	Specify if the action is on the IOC or port level
Port #	0 To 17	Optional parameter to specify which port for the MANB action

Command name:

RTS in IOCMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to return the IOC to service. This feature only adds new responses to this command. This command is only applicable to IOM. When the PEC code of the IOM is not datafilled correctly in table IOC, attempts to RTS the IOC will fail and an error message will be returned to indicate the RTS failure is due to IOM PEC code mismatch. Also, the card list display is modified by this feature for IOM when the RTS operation fails.

Warning

None

Command syntax

Existing syntax for IOC (1X61):
RTS - return to service IOC or port
Parms: <Specify IOC or Port> {IOC,
PORT <Card #> {0 TO 8}
<Port on Card> {0 TO 3}}

Existing syntax for IOC (FX30):
RTS - return to service IOC or port
Parms: <Specify IOC or Port> {IOC,
PORT <port #> {0 TO 17}}

Parameter definitions

Table 5-53 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Specify IOC or Port	IOC or PORT	Specify if the action is on the IOC or port level
Port #	0 To 17	Optional parameter to specify which port for the RTS action

Command name:

TST in IOCMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to test the IOC. This feature only adds new responses to this command. The card list display is modified by this feature for IOM when the TST operation fails. This command is only applicable to IOM.

Warning

None

Command syntax

Existing syntax for IOC (1X61):

```
    TST - test IOC or port
    Parms: <Specify IOC or Port> {IOC,
                                  PORT <Card #> {0 TO 8}
                                       <Port on Card> {0 TO 3}}
```

Existing syntax for IOC (FX30):

```
    TST - test IOC or port
    Parms: <Specify IOC or Port>   {IOC,
                                    PORT <port #> {0 TO 17}}
```

Parameter definitions

Table 5-54 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Specify IOC or Port	IOC or PORT	Specify if the action is on the IOC or port level
Port #	0 To 17	Optional parameter to specify which port for the TST action

Command name:

RTS in TAPEMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to RTS the MTD. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the RTS operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

Enter <RTS> to Return MTD card/port To Service -NO Parms Required

Parameter definitions

None

Table 5-55 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name:

TST in TAPEMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to test the MTD. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the TEST operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

Enter <TST> to TeST the MTD card/port -NO Parms Required

Parameter definitions

None

Table 5-56 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name:

RTS in TTYMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to RTS a TC device. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the RTS operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

Existing syntax for 1X67:
RTS a cons and optionally FORCE to bypass mtce process.
Parms: [<Force> {FORCE}]
<Circuit> {0 TO 3}

Existing syntax for FX30:
RTS a cons and optionally FORCE to bypass mtce process.
Parms: [<Force> {FORCE}]

Parameter definitions

Table 5-57 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Force	FORCE	Optional parameter to force a RTS no matter what
Circuit	0 to 3	Optional parameter to specify which circut in the 1x67 to RTS

Command name:

TST in TTYMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to test a TC device. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the TEST operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

Existing syntax for 1X67:
Perform the following actions : RTS,Bsy,Offl,Tst
Parms: <Circuit> {0 TO 3}

Existing syntax for FX30:
Perform the following actions : RTS,Bsy,Offl,Tst

Parameter definitions

Table 5-58 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Circuit	0 to 3	Optional parameter to specify which circut in the 1x67 to RTS

Command name:

RTS in DISKMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to RTS a DDU. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the RTS operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

RTS -- Performs out of service tests,
rebuilds VCB chain from disk,
and returns the disk controller to service

Parameter definitions

None

Table 5-59 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name:

TST in DISKMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to test a DDU. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the TST operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

TST -- Performs out of service and inservice tests

Parameter definitions

None

Table 5-60 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name:

START in DISKMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to spin up of the DDU. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the START operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

START -- Spins up the drive

Parameter definitions

None

Table 5-61 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name:

STOP in DISKMDIR

Command type

This is a MENU command

Command target

The command target is SUPERNODE only.

Command availability

This command is a RES command.

Command description

This is an existing command to spin down of the DDU. This feature only adds new responses to this command for the new IOM platform. When the IOM fails to configure the port during the STOP operation, the command will respond an appropriate message back to users to indicate the config port failure.

Warning

None

Command syntax

STOP -- Spins down the drive

Parameter definitions

None

Table 5-62 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

THE FOLLOWINGS ARE THE RESPONSES FOR THE REBOOTIOM COMMAND.

Response

REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE}]

Explanation:

This response occurs when querying the REBOOTIOM command.

System action:

No action

User action:

No action

Response

REBOOTIOM command is only applicable for IOM.

Explanation:

This response occurs when invoking the REBOOTIOM command on the non-IOM IOC hardware.

System action:

No action

User action:

No action

Response

OK

Explanation:

This response occurs when REBOOTIOM command is successfully completed.

System action:

No action

User action:

No action

Response

Failed

Explanation:

This response occurs when REBOOTIOM command has failed. It can be either a communication problem with the IOM or a firmware problem occurred in the IOM.

System action:

No action

User action:

Check IOD logs for the failure reasons. RESET the IOM, redownload the firmware, or replace the IOM hardware.

Response

Invalid
IOC <iocno> <ioc_state>

Explanation:

This response occurs when REBOOTIOM command fails due to a invalid IOC node. The IOC number and state will be displayed to reflect the invalid node.

System action:

No action

User action:

Check the correctness of the IOC number and retry

Response

May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):

Explanation:

This response occurs always to confirm on the action when REBOOTIOM command is invoked.

System action:

No action

User action:

No action

THE FOLLOWINGS ARE THE NEW/MODIFIED RESPONSES FOR THE QIOM COMMAND.

Response

QIOM - Query IOM configuration and port status
Parms: [<OPTION> {ROM}]

Explanation:

This response occurs when querying the QIOM command.

System action:

No action

User action:

No action

Response

QIOM command is only applicable for IOM.

Explanation:

This response occurs when invoking the QIOM command on the non-IOM IOC hardware.

System action:

No action

User action:

No action

Response

IOM must not be OFFL state.

Explanation:

This response occurs when invoking the QIOM command when the IOM is in OFFL state. QIOM command will not wok in OFFL state.

System action:

No action

User action:

No action

Response

```
Port IOC 0 Node_no: 6; status: MBSY; state: DNLDED;
Table IOC File: IOMR0001 on D00DV002
IOM load on board: IOMR0001; Auto-Load: ON
Site    Flr   Rpos  Bay_id   Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03  32    IOC          03    FX30AA
Port Info:(C-CON, M-MPC, D-DDU, T-MTD, s-SCSI, F-Fault, P-PBSY)
PORT  0  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17
      C  C  C  -  C  T  -  -  -  M  -   -   -   -   -   -   sD  sT
      .  P  P  P  .  .  .  F  .  .  .   .   .   .   .   .   .   .
```

Explanation:

This response occurs when the QIOM request is successfully done and the IOM board and port information is returned and displayed to the user. Note that a new field is added to the response. The Auto-Load field indicates whether the IOC can be automatically reloaded or not upon failures. It is based on the validity of the FID of the load file stored in table IOC. A new status, P is also added into the Port Info. It is used to indicate that a port is PBSY, meaning that the smart connector is missing.

System action:

No action

User action:

No action

Response

```
EqPEC: FX30AA; HWstream: 01;  HWissue: 01; Checksum: EF
BootName: BOOTAA01;  LoadName0: IOMRAA01;   LoadName1: IOMRAA01
Release Date: 19951031;  Release Time: 13:56
```

Explanation:

This response occurs when the QIOM ROM request is successfully done and the IOM card configurable table is returned and displayed to the user.

EqPEC is the PEC code of the IOM board. HWstream and HWissue are the release number of the IOM hardware. Checksum indicates the checksum of this table stored in flash. BootName reflects the bootstrap load manufactured. This bootstrap load contains the basic IOM boot-up functions and it cannot be reprogrammed. The LoadName0 and LoadName1 are the names of the base load programmed in region 0 and region 1 respectively. These load names will be changed according to the download-reprogram operation. Release Date and Release Time record the release date and time of the IOM board.

System action:

No action

User action:

No action

Response

Failed

Explanation:

This response occurs when QIOM or QIOM ROM command has failed. It can be either a communication problem with the IOM or a firmware problem occurred in the IOM.

System action:

No action

User action:

Check IOD logs for failure reasons. RESET the IOM, redownload the firmware, or replace the IOM hardware

Response

Invalid
IOC <iocno> <ioc_state>

Explanation:

This response occurs when QIOM or QIOM ROM command fails due to a invalid IOC node. The IOC number and state will be displayed to reflect the invalid node.

System action:

No action

User action:

Check the correctness of the IOC number and retry

THE FOLLOWING RESPONSES ARE FOR BOTH THE QIOM AND REBOOTIOM COMMANDS

Response

Try again, failed to send to mtc process

Explanation:

This response occurs when fails to send the QIOM / REBOOTIOM requests to the maintenance process.

System action:

No action

User action:

These are system resource errors. Capture logs for problem analysis and do a restart to clean up system resources.

Response

No reply message, MRC:xxxx

Explanation:

This response occurs when fails to receive a reply from the IOC maintenance process on the QIOM / REBOOTIOM commands.

System action:

No action

User action:

These are system resource errors. Capture logs for problem analysis and do a restart to clean up system resources.

Response

Bad Reply:xxxx

Explanation:

This response occurs when receiving a bad reply from the IOC maintenance process on the QIOM / REBOOTIOM commands.

System action:

No action

User action:

These are system resource errors. Capture logs for problem analysis and do a restart to clean up system resources.

THE FOLLOWING RESPONSE IS ADDED FOR THE BSY COMMAND IN THE IOCMDIR.

Response

Downloading is in progress.
Please confirm (“Yes”, “Y”, “No”, or “N”):

Explanation:

This response occurs when the BSY command is requested while the IOC is downloading. The user will then be prompted to confirm. If “No” is entered, the BSY command will be aborted. If the “Yes” is entered, downloading will be aborted and the IOC will be made MANB.

System action:

No action

User action:

No action

THE FOLLOWING RESPONSE IS ADDED FOR THE RTS COMMAND IN THE IOCMDIR.

Response

PEC mismatches with datafill.

Explanation:

This response occurs when the RTS operation fails due to an incorrect datafill of the IOM PEC code. The PEC code datafilled in table IOC is different from the one stored inside the IOM board.

System action:

No action

User action:

Fix up the IOM PEC code datafill in table IOC

THE FOLLOWING RESPONSES ARE ADDED FOR THE RTS AND TST COMMANDS IN THE IOCMDIR.

Response

OK
Smart connector not present

Explanation:

This response occurs when TST PORT operation succeeds even though the smart connector for the port being tested is not present. Since the smart connector for the port is not present, the TST PORT operation does not include the loopback test at the smart connector.

System action:

No action

User action:

No action

Response

```
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31
```

Explanation:

This response occurs when the RTS or TST operation fail and a card list is displayed.

System action:

No action

User action:

Check IOD logs for failure reasons. RESET the IOM, redownload the firmware, or replace the faulty hardware

Response

```
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31
```
Check also the smart connector for Port 1

```
OR
```

```
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31
HOST    01    A05   ISME 03   32    IOC          03    FX34AA
```

Explanation:

This response occurs when the RTS or TST operation fail due to a failure in the smart connector.

System action:

No action

User action:

Check IOD logs for failure reasons. RESET the IOM, redownload the firmware, or replace the faulty smart connector.

Response

Downloading is in progress.

Explanation:

This response occurs when the RTS/TST command is requested while the IOC (IOM) is downloading. The RTS/TST commands will fail due to the reason that RTS/TST operations are destructive to downloading operation. Downloading (upgrading the F/W) has higher priority than the RTS/TST operations.

System action:

No action

User action:

Wait until the downloading operation completes and retry the RTS/TST commands.

Response

```
DEVICE NOT OFFLINE
```

Explanation:

This response occurs when the TST PORT command is invoked in the IOCMDIR level and the device connected to the given port is not offlined.

System action:

No action

User action:

Offline the device connected to the given port and retry the TST PORT command.

Response

Port CFG fail

Explanation:

This response occurs when the RTS/TST command from the TTYMDIR or TAPEMDIR fails due to the IOM F/W fails to create the TC or MTD task in the IOM.

System action:

No action

User action:

Check IOD logs for failure reasons. Reboot the IOM, redownload the firmware, or replace the faulty hardware

Response

SmrtConn Fail FX34AA

Explanation:

This response occurs when the RTS/TST command from the TTYMDIR or TAPEMDIR fails due to the IOM F/W fails to configure the smart connector in the IOM. The “troubled” smart connector is also reported.

System action:

No action

User action:

Replace the faulty smart connector and retry the operation.

Response

IOM Config Port failed

Explanation:

This response occurs when the RTS/TST/START/STOP commands from the DISKMDIR fail due to the IOM F/W fails to configure the DDU task in the IOM.

System action:

No action

User action:

Replace the faulty smart connector and retry the operation.

Notes

REBOOTIOM and QIOM commands mentioned in this document are IOM specific commands. When used in IOC platform, both commands will fail with error messages. On the other hand, BSY and RTS commands are applicable to both IOM or non-IOM IOC platforms.

Examples

```
> Q REBOOTIOM
REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE} ]

> REBOOTIOM
REBOOTIOM command is only applicable for IOM.

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
OK

> REBOOTIOM FORCE
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
OK

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> N

> REBOOTIOM
May cause severe problems with IO devices.
```

```
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
Failed

> REBOOTIOM
May cause severe problems with IO devices.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
Invalid
IOC 1 OFFL

> Q QIOM
REBOOTIOM - Request an IOM firmware reboot restart
Parms: [<BOOTTYPE> {FORCE} ]

> QIOM
QIOM command is only applicable for IOM.

> QIOM
IOM must not be OFFL state.

> QIOM
Port IOC 0 Node_no: 6; status: MBSY; state: DNLDED;
Table IOC File: IOMR0001 on D00DV002
IOM load on board: IOMR0001; Auto-Load: ON
Site    Flr   Rpos  Bay_id   Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03  32    IOC          03    FX30AA
Port Info:(C-CON, M-MPC, D-DDU, T-MTD, s-SCSI, F-Fault, P-PBSY)
PORT  0  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17
      C  C  C  -  C  T  -  -  -  M  -   -   -   -   -   -   sD  sT
      .  P  P  .  .  .  .  F  .  .  .   .   .   .   .   .   .   .


> QIOM ROM
EqPEC: FX30AA; HWstream: 01;  HWissue: 01; Checksum: EF
BootName: IOMRAA01;  LoadName0: IOMRAA01; LoadName1: IOMRAA01
Manufacture Date: 10/31/1995;Manufacture Time: 13:56


> QIOM
Failed

> QIOM
Invalid
IOC 1 OFFL

> BSY IOC
Downloading is in progress.
Please confirm (“Yes”, “Y”, “No”, or “N”):
> Y
OK

IOCMDIR:
> RTS IOC
Failed
PEC mismatches with datafill.

IOCMDIR:
> RTS IOC
```

```
Failed
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31A

IOCMDIR:
> RTS IOC
Downloading is in progress.

IOCMDIR:
> TST IOC
Downloading is in progress.

IOCMDIR:
> TST PORT 3
Failed
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31
```
Check also the smart connector for Port 1

```
IOCMDIR:
> TST PORT 4
Failed
Site    Flr   Rpos  Bay_id    Shf   Description  Slot  EqPEC
HOST    01    A05   ISME 03   32    IOC          03    FX30AA
HOST    01    A05   ISME 03   32    IOC          03    FX31A
HOST    01    A05   ISME 03   32    IOC          03    FX34AA

IOCMDIR:
> TST PORT 2
OK
Smart connector not present

IOCMDIR:
> TST PORT 2
DEVICE NOT OFFLINE

TAPEMDIR:
> RTS
Failed
Port CFG fail

TAPEMDIR:
> TST
Failed
SmrtConn fail FX34AA

TTYMDIR:
> RTS
SmrtConn fail FX34AA
Failed

TTYMDIR:
> TST
Port CFG fail
Failed

DISKMDIR:
> START
```

```
IOM Config Port failed

DISKMDIR:
> STOP
IOM Config Port failed

DISKMDIR:
> RTS
RTS process may take up to 3 Minutes.
Failed
IOM Config Port failed

DISKMDIR:
> TST
Failed
IOM Config Port failed
```

Alarms

There is no new alarm added in this feature.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG5037mm.aa07

Directories

MAPCI

MTC	-	MTC Directory
PM	-	PM Directory
TTP	-	Trunk Test Position Directory

Table of New/Modified Directories

Table 5-63 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
TM DIR	CHANGED		BOTH	RES
TRK_TTP DIR	CHANGED		BOTH	RES

Accessing directory:

To access

MAPCI ; MTC ; PM ; POST <PM>

MAPCI ; MTC ; TRKS ; TTP ; POST <IT>

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-64 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
POST	CHANGED		TM
BSY, TST, RTS	CHANGED		TM
QUERYPM	CHANGED		TM
TRNSL P	CHANGED		TM
TRKQUERY TM <TMTYPE>	CHANGED		ANY LEVEL
CKTINFO	CHANGED		TRKS_TTP
CKTLOC	CHANGED		TRKS_TTP

Command name: POST <PM>

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

Posting an AIM based MTM will produce a banner consistent with that currently displayed for TM8 and MTM of PM types.

Posting an AIM based RMM will produce a banner similar to that currently displayed for ISM based MTM. Format “RMM(aim)” will be displayed for posting an AIM based RMM.

Warning

N/A

Command syntax

POST <PM>

Parameter definitions

None changed

Table 5-65 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: BSY-TST-RTS

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

The state transitions of the posted AIM based MTM and AIM based RMM will produce a banner consistent with that currently displayed for MTM and RMM of PM types.

Warning

The state transitions from OffL to ManB and from ManB or SysB to InSv will include the B_card audit. Commands BSY and RTS will fail if there is a mismatch or missing or misplaced the B_Card and an error message will display indicating the specific problem of the installation.

Command syntax

BSY or TST or RTS

Parameter definitions

N/A

Table 5-66 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: QUERYPM

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

Querying an AIM based MTM will produce the additional B_card information which is consistent with that of the current display for an MTM PM types. Information on Site, Flr, RPos, Bay_id, Shf, Description are the same for both A_card and B_card. Only the information on Slot and equipment PEC code will be updated for B_card accordingly *(Please refer to "Figure 4 QUERYPM of AIM" on page 22 of AG5037DD).*

Warning

Command QueryPM will produce a warning message if the configured B_card does not match its provisioning. The message will be ***"WARNING: Datafilled AIM B_Card does not match peripheral circuit packs. Check table TMINV and peripheral hardware."***

Command syntax

QUERYPM

Parameter definitions

N/A

Table 5-67 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: TRNSL P

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

Command TRNSL P of an AIM based MTM will build the display of circuits, card code, CLLI, extno and state of each emulated trunk.

Command TRNSL P of an AIM based RMM will be similar to the AIM based MTM clause . In the AIM based RMM (FX14AA) only circuits 26-29 are used for emulations and only these circuits will be displayed.

Warning

N/A

Command syntax

TRNSL P

Parameter definitions

N/A

Table 5-68 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: TRKQUERY

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

TRKQUERY command will be extended to AIM. For example, user will be able to display a list of trunks emulated by the AIM 1 by entering the TRKQUERY TM AIM 1 command from any level of the MAP.

Warning

N/A

Command syntax

TRKQUERY TM AIM <AIM NUMBER>

Parameter definitions

None changed

Table 5-69 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Table 5-69 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: CKTINFO

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

Command CKTINFO will result in displaying the name and status if the AIM based trunk circuit was posted *(Please refer to "Figure 7 CKTINFO For Posted AIM Based Trunk"on page 25 of AG5037DD).*

Warning

N/A

Command syntax

CKTINFO

Parameter definitions

N/A

Table 5-70 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command name: CKTLOC

Command type

MENU

Command target

BOTH

Command availability

RES

Command description

Command CKTLOC will result in displaying the information of the currently posted trunk circuit, its Site, Flr, RPos, Bay_id, Shf, Description for the AIM based MTM or the AIM based RMM. The convention of “*A*” or “*B*” will be displayed in the Slot field to indicate that the A_card or B_card emulation is in place. The detail message will be added to explain the functionality of the emulated circuit.

Warning

N/A

Command syntax

CKTLOC

Parameter definitions

N/A

Table 5-71 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

B_Card status information is verified by audit process. Response to commands BSY, TST, RTS or QUERYPM will result the warning message displayed in case of the B_card mismatch, missing or misplaced.

Explanation:

The warning message of B_card mismatch resulted from the provisioned B_card on the AIM PM hardware does not match the datafilled on TMINV table.

Another warning message will also result from the situations of B_Card missing or missplaced in the shelf.

System action:

The system action will fail the current user’s request on HMI operation.

User action:

User action should be to correct TMINV datafilled or hardware slot provisioning.

Notes

N/A

Examples

Alarms

N/A

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG5038mm.aa06

Directories

Table of New/Modified Directories

Table 5-72 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
TRK_TTP_DIR	Changed		Both	Res

Accessing directory: TRK_TTP_DIR

To access

(unchanged) - MAPCI;MTC;TRKS;TTP

To return to CI

(unchanged) - QUIT ALL

Commands

Table of New/Modified Commands

Table 5-73 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
AIMCKT	New		TRK_TTP_DIR

Command name: AIMCKT

Command type

Unlisted MENU.

Command target

Both SuperNode and BRISC.

Command availability

RES.

Command description

Command applies only to posted AIM based trunks. Use of AINCKT on non-AIM based trunks will give a warning message to this effect.

Figure 5-2 Command AIMCKT QUERY ALL

```
  CM     MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
CM Flt  MSpair  3DDUOS   2CBsy   1 FP   3   RS    .      41 GC   1 Maj    .
  M      *C*      M       M      *C*     *C*             *C*      M
TTP
 0 QUIT      POST     2  DELQ            BSYQ         DIG
 2 Post_     TTP  6-0000
 3 SEIZE     CKT TYPE     PM NO.          COM LANG     STA S R  DOT TE  RESULT
 4           OG       AIM    1 15   HSET            3  INB
 5 BSY
 6 RTS
 7 TST
 8
 9 CktInfo
10 CktLoc
11 Hold      aimckt query all
12 NEXT      TERM IMP   RxGAIN  TxGAIN    PBAL   LOOP         SIG
13 RLS        (OHMS)     (DB)    (DB)
14 Ckt_         900      0.00    0.00    2X77AA  SHORT   GROUND_START
15 TrnslVf_
16 StkSdr_
17 Pads
18 Level_
  OPERATOR
Time  10:35  >
```

AIMCKT is intended to permit the quuery of configuration information for trunks emulated by AIM based peripherals. Variations of the “query” functions of this command are as follows:

1. QUERY ALL

   Displays Balanced Network type, Signalling type, Termination Impdance, and Transmit and Receive Gain for the posted AIM or AIM based RMM trunk.

2. QUERY BAL

   Displays the Termination Impedance, Balanced Network Unit, and current values of the three B11 registers used by the AIM PM to synthesize the Balanced Network Impedance.

   The command also indicates if the B11 register values correspond to the DIAGDATA default BalNet for the Trunk Grouphave been manually overridden for this specific trunk.

3. QUERY SIG

   This option applies only tho 5X30AA/BA type trunks. It displays whether the posted trunk is set to Loop Start or Ground Start signalling.

AIMCKT also provides a limited ability to update the configuration information associated with BalNet impedance synthesis and Loop Signalling for specific trunk emulations. Variations of the “config” functions of this command are as follows:

1. CONFIG RESET

   Resets Balanced Network B11 registers and Signalling to their default values for the posted trunk as determined from table DIAGDATA for the Trunk Group.

   Use of CONFIG RESET clears the “BalNet B11 Registers Overridden” flag if it was set.

2. CONFIG BAL

   Permits the manual setting of the three B11 Balanced Network synthesis regiusters for the posted trunk. Three values, R1, R2, & R3, in the range 0-255 must be provided. Use of this command.

   Use of CONFIG RESET sets the “BalNet B11 Registers Overridden” flag.

   To effectivly use this command option, the TELCO must have previously contacted Nortel Field Support to discuss the required changes to the default Balnet synthesis register values. The register values are not intuitive and must be provided by Nortel; They cannot be generated by the TELCO alone.

3. CONFIG SIG

   This option applies only tho 5X30AA/BA type trunks. Either a “LOOP” or “GROUND” parameter is also required and is sets the corresponding signalling type for the posted trunk.

Warning

This command has no service affecting warnings.

Command syntax

The command structure for AIMCKT is:

```
AIMCKT -- QUERY ORR SET CONFIG INFO FOR AIM EMULATED TRUNK
Parms: <OPT>    {QUERY <HOW>     {ALL,
                                  BAL,
                                  SIG},
                 CONFIG <WHAT>   {RESET,
                                  BAL     <R1> {0 TO 255}
                                          <R2> {0 TO 255}
                                          <R3> {0 TO 255},
                                  SIG     <START> {LOOP,
                                                   GROUND}}}
```

Parameter definitions

Table 5-74 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Option	QUERY | CONFIG	QUERY is default
What	ALL | BAL | SIG	Applies to type of QUERY ALL is default
Info	BAL | SIG	Applies to CONFIG No default
R1	INT	Applies to CONFIG BAL.
R2	INT	Applies to CONFIG BAL.
R3	INT	Applies to CONFIG BAL.
SIG	LOOP | GROUND	Applies to CONFIG SIG.

Responses

Response

“TTP INACTIVE, PLEASE QUIT AND RE-ENTER”

Explanation:

There is a TTP resource problem.

System action:

None.

User action:

RE-entre the TTP and try again. In most cases this resource problem is temporary.

Response

“FAILED, NO CKT”

Explanation:

There is no POSTed trunk. AIMCKT requires that a trunk be posted at the TTP.

System action:

None.

User action:

Post a trunk and repeat the command.

Response

“FAILED, NOT AN EMULATED TRUNK CKT”

Explanation:

The POSTed trunk is not an emulated trunk circuit and is not hosted by an AIM or AIM based RMM peripheral. AIMCKT applies to only AIM based trunk emulations.

System action:

None.

User action:

None.

Response

“FAILED, BALANCE NETWORK DOES NOT APPLY.”

Explanation:

Balanced Network, (2X77), feature is not supported by the POSTed trunk type.

System action:

None.

User action:

None.

Response

“FAILED, SIGNALLING CONFIGURATION DOES NOT APPLY.”

Explanation:

Signalling type does not apply to POSTed trunk type. Loop_Start / Ground_Start only applies to 5X30AA/BA trunk emulations.

System action:

None.

User action:

None.

Response

“FAILED, BAD/INVALID PARAMATER DATA.”

Explanation:

Invalid data for the B11 register values was supplied by the operator as part of the “AIMCKT CONFIG BAL” command line.

System action:

None.

User action:

None.

Response

"REGISTER SETTINGS CHANGED FROM DEFAULT PBAL.
PBAL INFO FROM TABLE DIAGDATA IS MANUALLY OVERRIDDEN."
OR "NOTE: PBAL INFO FROM TABLE DIAGDATA IS MANUALLY OVERRIDDEN."

Explanation:

Balanced Network B11 synthesis registers for the posted trunk are set to override the default values. The registers were either manually overridden by recent commands or commands sometime in the past.

System action:

None.

User action:

None.

Response

"DEFAULT PBAL INFO IS TAKEN FROM TABLE DIAGDATA."

Explanation:

This response is part of the CONFIG RESET option. It confirms that the Bnalnced Network B11 synthesis registers have been reset to their default values as determined by the PBAL unit set in table DIAGDATA for the trunk group of the posted trunk. The registers are no longer manually overridden.

System action:

None.

User action:

None.

Notes

Command only applies to trunks emulated by AIM based TM peripherals.

Examples

See Figure 1.

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AG5151mm.aa04

Directories

Table of New/Modified Directories

Table 5-75 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
Progdir	changed		supernode brisc	res

Accessing directory:

Accessable at login.

To access

n/a

To return to CI

n/a

Commands

Table of New/Modified Commands

Table 5-76 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
Clliref	New		Progdir

Command name:

Clliref

Command type

Non-menu

Command target

Supernode,Brisc

Command availability

Resident

Command description

CLLIREF is an analysis tool for CLLIs and TRKGRPs.
It provides information about:
a) which CLLIs have a TRKGRP entry, but no TRKMEM entry or...
b) which tables reference a given CLLI.

Warning

There is no potential for loss of service when using this CI.

Command syntax

CLLIREF is an analysis tool for CLLIs and TRKGRPs.
It provides information about:
a) which CLLIs have a TRKGRP entry, but no TRKMEM entry or...

b) which tables reference a given CLLI.
Parms: <Subcommand>{
MEMBERLESS [<Device> STRING],
SEARCH <CLLI name> STRING
[<ALL or Table name> STRING]
[<Device> STRING]}

Parameter definitions

Table 5-77 Parameter Definitions

PARAMETER	VALUE	DEFINITION
MEMBERLESS	n/a	CLLIs have a TRKGRP entry, but no TRKMEM
SEARCH	n/a	Search tables for reference of a given CLLI
clli name	alphanumeric string	Common Language Location Identifier
ALL	n/a	Search all tables (default)
table name	alphanumeric string (any valid table name)	A name of a table to search
device	alphanumeric string (any valid table name)	Output device (optional)

Responses

Response

A list of CLLI's, tables, and/or tuples are displayed.

Explanation:

This feature (command) is required to look up CLLI information.

System action:

This command outputs CLLI information to a device.

User action:

None

Notes

None

Examples

a)

```
>clliref memberless
These TRKGRP CLLIs are not referenced by TABLE TRKMEM.
CAUTION:  Some CLLIs are needed without Trunk Members.
Memberless TRKGRP CLLIs
-----------------------
AOSSDANI
AOSSDONI
AOSSINT
AOSSOIC
AOSSINTNP
LNAOSSI
.
.
.
PTOPSMFWK
TOPSOPMFWK
=======================
Total of 217 memberless TRKGRPs.
```

b.1)

>clliref search ea3 all

```
CLLI “EA3” occurs in the following tuples:
Table     Key: Sub  Tuple
--------  -------> ----------------------------------------
CLLI                EA3 807 10 XXXX
ANNS                EA3 STND 25 30 14 1
ANNMEMS             EA3 1 AUDICHRON 2X88AA (0 TM8 2 22) $
ANNMEMS             EA3 2 AUDICHRON 2X88AA (0 TM8 2 23) $
TRKNAME             807 EA3
CLLIMTCE            EA3 EA3 5 10 15 NSS 0 0 N N (2)
OFRT                117 (S D EA3) (S D 120T0) $
====================
Total of            7
occurrences of EA3
```

b.2)

>clliref search mtrlpq0201t0 ofrt sfdev

```
MTRLPQ0201T0 occurs in 8 tuples in table OFRT
Tuple information on device SFDEV
                  in file   MTRLPQ0201T0$CLLIREF
```

Alarms

Alarm name:

No alarms

Conditions required to raise the alarm

n/a

Duration of the alarm

n/a

AN1660mm.aa09

This MM is a common MM for the following features:

- **(CM-AN1660)** CM Maintenance Communication Controller.
- **(XPM-AN1661)** XPM Maintenance Communication Controller.
- **(XPM-AN1662)** Inbound Data between LAPD and Stack.
- **(XPM-AN1663)** Outbound Data between Stack and LAPD.
- **(XPM-AN1664)** PPS Bellcore Compliancy.
- **(XPM-AN1665)** Maintenance Communication Controller Field Support Tools.

Because these features address the IDT Node Maintenance and the IDT Maintenance Connection in both the CM and the SMA, this MM covers the modifications to the user interfaces (MAPCI, User Commands and PMDEBUG). Three main areas are covered:

- •The MAPCI interface related to the IDT Node and PPS Path status information.
- •A new CI tool created to control the IDT Maintenance Connection in the CM.
- •The PMDEBUG tool modifications to monitor the IDT Maintenance Connection in the SMA.

Directories

This section shows the directories affected by these features. See Table 5-78, “Command Directories,” on page 156.

Table of New/Modified Directories

Table 5-78 Command Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
IDTDIR	CHANGED		SUPERNODE	RES
MCCMTCDIR	NEW		SUPERNODE	RES
PROGDIR	CHANGED		SUPERNODE	RES

The directories are modified as follows:

- IDTDIR: This directory contains all commands related to the MAPCI displays.

- MCCMTCDIR: This new directory contains all the commands to control the Maintenance Connection in the CM.
- PROGDIR: This directory contains the PMDEBUG command. PMDEBUG is enhanced with new commands related to the monitoring of the Maintenance Connection Controller in the SMA.

Accessing directory:

This section shows the commands used to access each directory, specified in Table 5-78, “Command Directories,” on page 156.

IDTDIR Accessing Directory

Information related to the IDT node state and PPS path state are accessible at the PM level of MAPCI.

To Access

To access this directory, the craftsperson enters the following command:

MAPCI;MTC;PM;POST IDT <idt_number>

To Return to CI

To return from this MAP level to the CI environment, the craftsperson enters the following command:

QUIT ALL

MCCMTCDIR Accessing Directory

This directory is an increment to the CI environment. It is used to control the IDT Maintenance Connection of the IDT’s in the CM.

To Access

To access this directory, the craftsperson enters the following command:

IDTMCC

To Return to CI

To return to the CI environment, the craftsperson enters the following command:

QUIT ALL

PROGDIR (PMDEBUG) Accessing Directory

To Access

To access this directory, the craftsperson enters the following commands:

PMDEBUG SMA <sma #> <unit #>

AIdebug

SCEPTER

MCC

To Return to CI

QUIT

IDTDIR Commands

This section covers the command related to the IDT Node state and PPS Path state. The following section assumes that the craftsperson has posted the IDT at the MAPCI level.

Table of New/Modified Commands

Table 5-79 IDTDIR Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
PPS Query	CHANGED		IDTDIR
QueryPM Flt	CHANGED		IDTDIR

Command name: PPS_QUERY and QUERYPM_FLT

The following sections are common to the “PPS QUERY” and “QUERYPM FLT” commands and, therefore are not duplicated.

Command type

Both commands are MENU. See "Examples" on page 162.

Command target

For both commands, the target is SUPERNODE.

Command availability

Both commands are RES.

Command description

PPS Query Command:

- A new state is added to the state of a path. This information can be obtained by the craftsperson on the MAPCI. With the IDT posted, the user enters the "PPS QUERY" command.

  Prior to this activity, the state of a path is either In-Service (INSV) or Out-Of-Service (OOS). A path is In-Service when both LAPD logical links (PPS and Data links) are Multi Frame Established (MFE). A path is Out-Of-service when at least one of the LAPD logical links (PPS or Data LAPD logical link) loses its MFE state.

  To satisfy the BellCore requirement R-1268, in case of a PPS failure, traffic activity (EOC or Call Processing) must be restored, if possible, on the last active path. Traffic activity can be restored when the data logical link is MFE regardless of the PPS logical link state. To provide accurate feedback information to the craftsperson, the path is set to In-Service-TrouBle (ISTB). With this new approach, a path is INSV when both LAPD logical links are MFE, ISTB when the data LAPD logical link is MFE but not the PPS LAPD logical link and OOS when at least the data logical link is not MFE.

QueryPM Flt Command:

- One new node In Service Trouble (ISTB) condition is created:

  A new ISTB condition is added at the IDT level to indicate that a path is in ISTB state (Data LAPD logical link is MFE but not the PPS LAPD logical link). The ISTB state indicates the path where the PPS logical link is not MFE but the data is MFE.

- The existing ISTB conditions are enhanced:

  The ISTB condition indicating that the Maintenance Connection is down is modified. The reason for the reject (i.e. transient or permanent) is added to the existing ISTB condition. The possible ISTB conditions are:

  — *MTC connection not established: No Active EOC Path*

— *MTC connection not established: SMA SwAct*

— *MTC connection not established: Aborted By RDT*

— *MTC connection not established: No CM-SMA Communications*

— *MTC connection not established: Requested By User*

— *MTC connection not established: Requested By Keep Alive*

— *MTC connection not established: Aborted by SMA Audit*

— *MTC connection not established: Object Model Incompatible*

— *MTC connection not established: Set-Up In Progress*

— *MTC connection not established: Request Time-out*

— *MTC connection not established: Stack Refusal*

Note that during an XPM Swact, the Maintenance Connection is taken down and restored. During the time the Maintenance Connection is not available the ISTB condition '*MTC connection not established: SMA SwAct'* is posted to the IDT.

Warning

Not Applicable. (No warning message issued).

Command syntax

The Command syntax remains unchanged.

Parameter Definitions

The parameters for the "QUERY PPS" and "QUERYPM FLT" remain unchanged by this activity.

Responses

PPS Query Response

The format of the display to users remains unchanged. The information contains the path state (either INS, OOS or ISTB), the activity status of a path (either Active or Standby) and whether the path is enabled or not. The modification brought by this feature is the additional state of a path: ISTB. Please refer to Please refer to "Figure 5-3 PPS Query Example" on page 163. for a graphical representation of the display.

Explanation:

The three possible states of a path are now:

INSVBoth LAPD logical links of the path are up (i.e. MFE).

OOSThe data LAPD logical link of the path is down (i.e. not MFE), regardless of the PPS LAPD logical link.

ISTBThe data LAPD logical link of the path is MFE but not the PPS LAPD logical link.

System action:

See above.

User action:

If the path is OOS, the data LAPD logical link is not MFE. The PPS LAPD logical link may or may not be MFE. Several reasons could cause a LAPD not to be MFE: DS1 Problem, Remote LAPD end point refuses to set up the connection, LAPD parameters incompatible between each end of the connection, etc.

If the path is ISTB, the data LAPD logical link is up but not the PPS LAPD logical link. In this case, the data LAPD logical link is MFE, therefore all reasons except the DS1 problem are applicable.

QueryPm Flt Response

The format of the display remains the same. However the indication of permanent reject or transient reject is removed.

Explanation: Notes

Table 5-80 Maintenance Connection ISTB

ISTB Seasons[a]	Explanation
No Active EOC Path	This indicates that the connection is down because there is no ACTIVE EOC path.
SMA SwAct	The SMA is doing a swact, either autonomous swact or cold/warm swact. The ISTB is cleared when the swact is completed.
Aborted By RDT	The connection has been aborted by the RDT, either during connection set up or when the connection was already up.
No CM-SMA Communications	The CM-SMA connection is not UP, therefore the MTC Connection cannot be up.

Table 5-80 Maintenance Connection ISTB

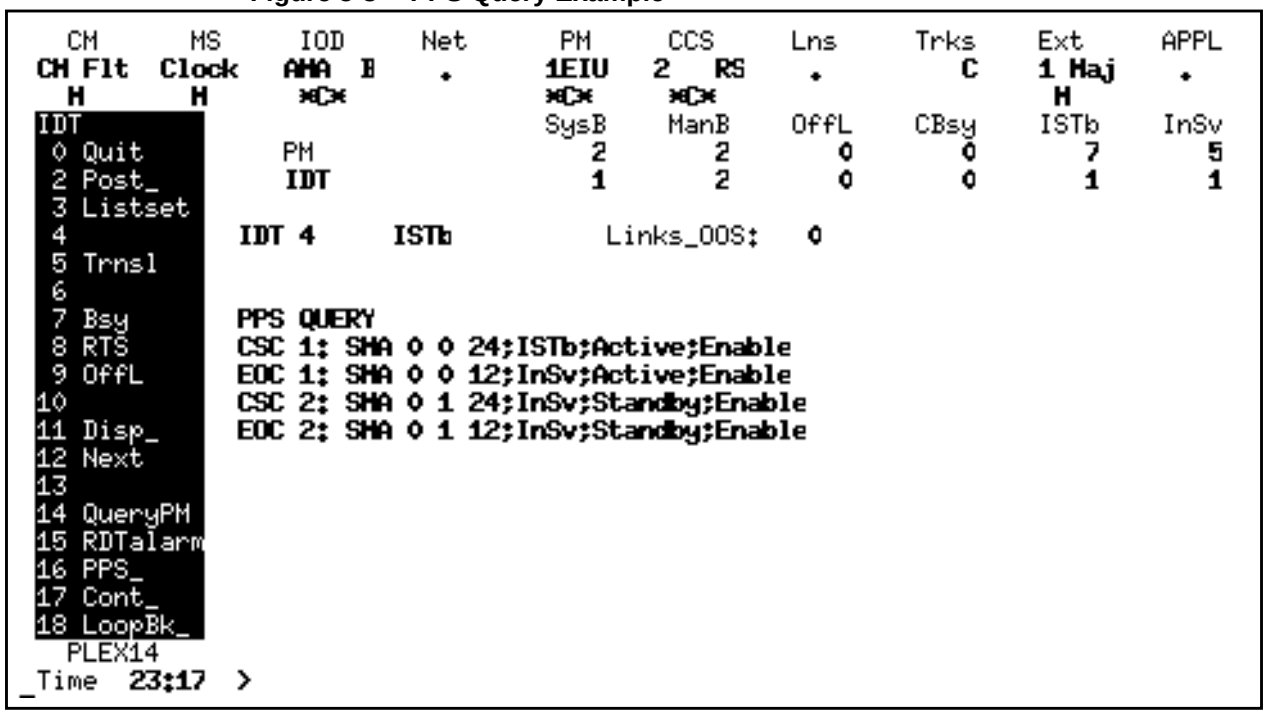
ISTB Seasons[a]	Explanation
Requested By User	The user has entered the 'RELEASE' command on this IDT.
Requested By Keep Alive	One Maintenance Connection sanity is performed by application messaging. This sanity consists in verifying that the connection state is the same between the RDT (i.e. AccessNode) and the CM.
Aborted by SMA Audit	The other Maintenance Connection sanity is performed between the CM and the SMA.
Object Model Incompatible	This is the results of Object Models incompatible between the CM/SMA and the AccessNode.
Set-Up In Progress	The Maintenance Connection set up is in progress. The CM is waiting for a reply.
Request Time-out	The Maintenance Connections set-up has times out.
Stack Refusal	The Maintenance Connection set up is refused by the TR-303 Stack in the SMA.

a. Note that the reader should read "MTC connection not established:" followed with the reasons listed in this column.

Examples

Please refer to "Figure 5-3 PPS Query Example" on page 163. is an example of the system response to the PPS QUERY where the CSC1 path is ISTB (this means that the PPS LAPD logical link is not MFE but the data LAPD logical link is MFE). Note that when one or more path is in ISTB state, the IDT node state is ISTB

Figure 5-3 PPS Query Example



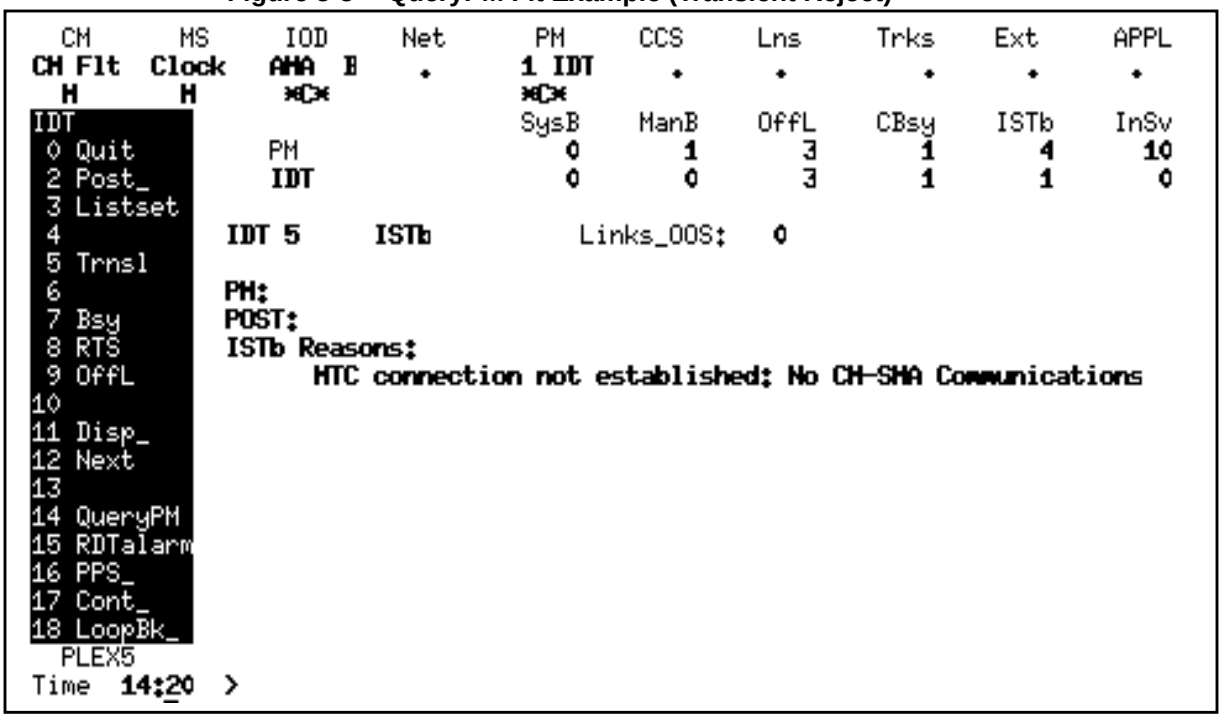
Please refer to “Figure 5-4 QueryPM Flt Example (Path ISTB)” on page 164. is an example of the new ISTB reason which is added at the IDT node state level. This screen can be reached from the screen displayed in Please refer to “Figure 5-3 PPS Query Example” on page 163., by entering the command “QueryPM Flt”. Note that the reason for the path to be ISTB is provided: the data LAPD logical link is IS while the PPS LAPD logical link is OOS.

Figure 5-4 QueryPM Flt Example (Path ISTB)

```
  CM       MS       IOD      Net       PM       CCS      Lns      Trks     Ext      APPL
CM Flt   Clock    AMA  B      *       1 IDT      *        *         C       *        *
  M        M       >C<                >C<
IDT                                   SysB     ManB     OffL     CBsy     ISTb     InSv
 0 Quit          PM                     0        1        1        1        7        9
 2 Post_         IDT                    0        0        1        1        3        0
 3 Listset
 4               IDT 4      ISTb            Links_OOS:    0
 5 Trnsl
 6               PM:
 7 Bsy           POST:
 8 RTS           ISTb Reasons:
 9 OffL                CSC 1 - IsTb  (Data Link is up, PPS Link is down)
10
11 Disp_
12 Next
13
14 QueryPM
15 RDTalarm
16 PPS_
17 Cont_
18 LoopBk_
  PLEX5
Time  14:55  >
```

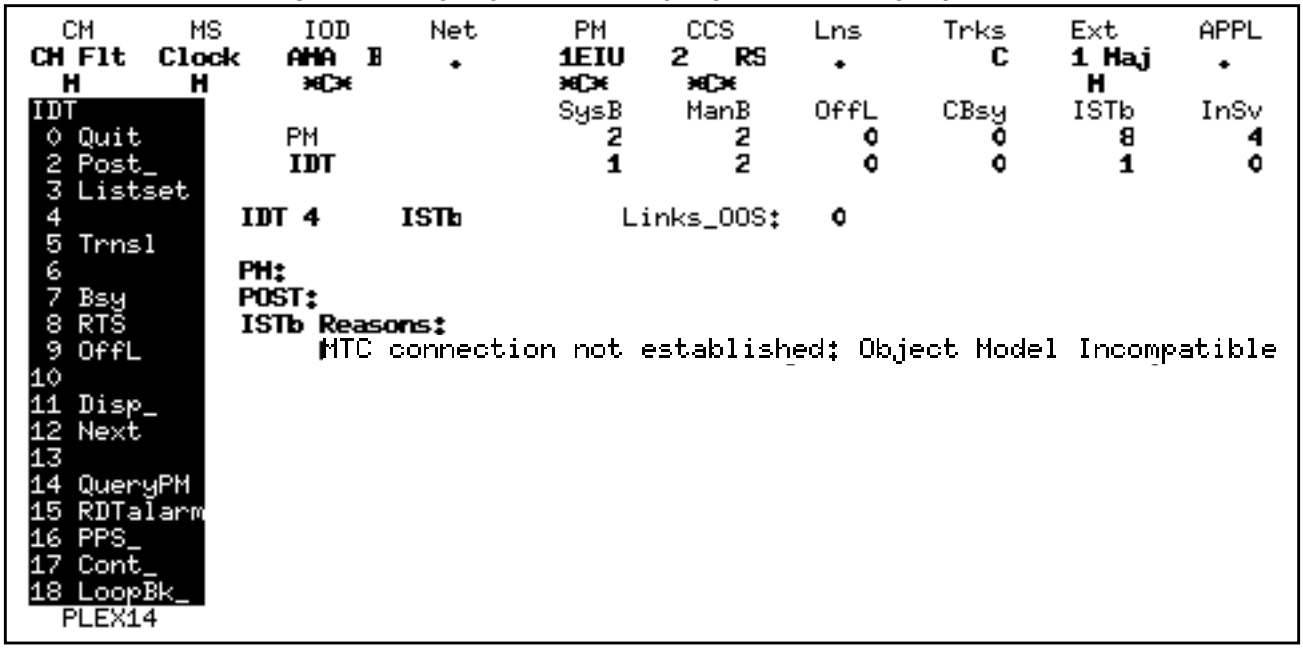
The ISTB reason indicating that the Maintenance Connection is down because of a transient reject is modified. The reason for the transient reject is added to the existing ISTB reason. Please refer to “Figure 5-5 QueryPM Flt Example (Transient Reject)” on page 165. provides an example of the new display when the Maintenance Connection is down because the CM-SMA IPC Connection is not up.

Figure 5-5 QueryPM Flt Example (Transient Reject)



The ISTB reason indicating that the Maintenance Connection is down because of a permanent reject is modified. The reason for the Permanent reject is added to the existing ISTB reason. The only reason for a permanent reject is “OM level incompatible” (OM: Object Model).

Figure 5-6 QueryPM Flt Example (Permanent Reject)



MCCMTCDIR Commands

There are fourteen new commands in the MCCMTCDIR directory listed as follows: Summary, Qconn, Display, Clear, Setup, SmaAudit, IdtAudit, Release, Queues, Stats, Simul, Mccipc, Help and Quit.

Table of New/Modified Commands

Table 5-81 MCCMTCDIR Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
Summary	NEW		MCCMTCDIR
Qconn	NEW		MCCMTCDIR
Display	NEW		MCCMTCDIR
Clear	NEW		MCCMTCDIR
Setup	NEW		MCCMTCDIR
SmaAudit	NEW		MCCMTCDIR
IdtAudit	NEW		MCCMTCDIR
Release	NEW		MCCMTCDIR
Queues	NEW		MCCMTCDIR
Stats	NEW		MCCMTCDIR
Simul	NEW		MCCMTCDIR
Mccipc	NEW		MCCMTCDIR
Help	NEW		MCCMTCDIR
Quit	NEW		MCCMTCDIR

Command name: Summary, Qconn, Display, Clear, Setup, SmaAudit, IdtAudit, Release, Queues, Stats, Simul, Mccipc, Help

Command type

All the commands of the MCCMTCDIR are NON-MENU.

Command target

All commands of MCCMTCDIR are targeted for SUPERNODE.

Command availability

All commands of MCCMTCDIR are RES.

Command description

The MCCMTCDIR commands description are:

SummaryThis lists all IDT's defined in RDTINV and provides the following:

- The IDT Number as defined in table RDTINV.
- The SMA Number of the IDT,
- The state of the Maintenance Connection,
- The RDT type and
- The state of the CM-SMA connection.

QconnThis lists two types of information: information on the IDT itself and information on the SMA the IDT is defined on:

Information on the IDT:

- The IDT maintenance State,
- The MCC Finite State Machine,
- The Current ISTB posted. It only addresses the ISTB generated by MCC,
- The reason why the connection was aborted or not brought up.
- The IDT type either AccessNode or Generic TR303 RDT.
- The state of the IPC CM-SMA communication state, either Up or Down.
- Information indicating whether a SMA swact is in progress or not.
- The connection setup number. This indicates how many time the MCC Connection was brought up.
- The Object Model information. The type can be either TR303 Object Model or FWP Object Model or SuperSet Object Model. Note that the last two one are only applicable when the RDT is an AccessNode. The information displayed also contains the Object model release, Subrelease and Version.

- The IDT Connection timer. It is the timer used when MCC issues a setup request.
- The IDT transient timer. It is used between two consecutive attempts to setup the connection.

Information on the SMA:

- The SMA Number,
- The SMA Audit state. The audit state is enable if the timer state is 'running' and disable if the timer state is not 'running'.
- The timer value. This timer value can be altered by using the command SMAAUDIT.
- Whether the IDT is audited by this SMA audit.

Display	This command displays the statistics related to the IDT.
Clear	This command clears the statistics related to the IDT.
Setup	This command requests a Maintenance Connection to be set-up for a specific IDT.
SmaAudit	This command allows to stop, start or query one SMA audit. The command's scope is either at IDT level (i.e. one IDT or all) or at SMA level (i.e. one SMA or all). This command also allows to modify the SMA audit timer. This timer is the frequency of the audit. Note there is one audit per SMA.
IdtAudit	This command allows to stop, start or query the IDT audit. There is only one audit, and the scope is all IDTs. this command also allows to modify the audit timer.
Release	This command requests a Maintenance Connection to be aborted for a specific IDT.
Queues	This command displays statistics related to MCC queues.
Stats	This command displays statistics related to all IDT (i.e. Global statistics).
Simul	This command allows to simulate IDT Maintenance actions, and to display ISTB reasons statistics.

Mccipc	This commands allows to alter or display the view of the IPC CM-SMA connection state. Note it does change the real state of the IPC CM-SMA connection but only the MCC view of it. Additionally the Maintenance Connection is neither dropped nor re-established. The ISTB reasons remains un-changed.
Help	This command provides help information on the previously listed commands.

Warning

A warning is issued when the RELEASE command is entered. The warning specifies that during the down time of the Maintenance Connection, no OAM&P operation can be performed with the RDT. The Maintenance Connection is restored either by the MCC IDT Audit, by the Setup command or on the transition from off-line to manual busy and there is an ACTIVE EOC path. Note that during the time the connection is down, the IDT is ISTB.

A warning is issued when the IDTAUDIT STOP command is entered. The warning indicates that the automatic Maintenance Connection setup recovery will be disable.

Command syntax

The Syntax of the MCCMTCDIR commands are:

```
IDTMCC

> QUIT

> HELP

> SUMMARY

> QCONN      <external_idt_num>

> DISPLAY    <external_idt_num>

> CLEAR      <external_idt_num>

> SETUP      <external_idt_num>

> SMAAUDIT   SMA <external_sma_num>/  STOP
                        /             START
                        /             QUERY
             SMA2 <external_sma_num>/ STOP
```

```
                              /              START
                              /              QUERY
                    IDT <external_idt_num>/  STOP
                              /              START
                              /              QUERY
                    TIMER <value>SMA <external_sma_num>
                                   SMA2 <external_sma_num>
                                   ALL

> IDTAUDIT  STATUS  /
            START   /
            STOP    /
            TIMER <value>

> RELEASE   <external_idt_num>

> QUEUES

> STATS     PRINT   /
            CLEAR

> SIMUL     <external_idt_num>/      ADD
                              /      REMOVE
                              /      ISTB

> MCCIPC    <external_idt_num>/      STATS / PRINT
                                          / CLEAR
                              /      STATUS
```

Note that the “external_idt_num” and “external_sma_num” are the IDT and SMA number as defined in the table RDTINV (DTNAME field). The following is an example of a table RDTINV entry:

TOP

RDTNAME ADNUM IDTNAME NENAME PRIMOPC BACKOPC VARTYPE CLAPDFLT MTSTACPT LINKTAB PROT POTSPADG EOC SDPOINTS RDTDN

RDT1 01 0 10 SMA 0 1 $ BRTPY451 $ RFT 1 7 1 96 Y (TBP MAPIF 14 TBPP N) $ (1 8) (2 10) (3 9) (4 11) $ N STDLN S $ (NETWORK_ID 1) (SYSTEM_ID 1) (NETWORKELEMENT_ID 10) (EQUIPMENT_ID 1) $

In the example, the field IDTNAME is ‘SMA 0 1’. The external_sma_num is 0, and the external_idt_num is 1.

Parameter Definitions

Table 5-82 MCCMTCDIR Commands Parameters

PARAMETER	VALUE	DEFINITION
external_idt_num	0 to 255 or ALL	The IDT number as defined in RDTINV table.
external_sma_num	0 to 255 or ALL	The SMA number as defined in RDTINV table. On the AUDIT command, if an SMA is specified, then the command applied to all IDT defined on this SMA.
Value (SmaAudit)	1 to 120 seconds or 1 to 120 minutes	This specifies the SMA audit frequency on a SMA basis. Note that all IDTs on the same SMA are audited at the same frequency.
Value (IdtAudit)	1 to 120 seconds or 1 to 120 minutes	This specifies the IDT audit frequency.

Responses

Response

- An example for the “SUMMARY” command is given in “SUMMARY Command Example:” on page 175.
- An example for the “QCONN” command is given in “QCONN Command Examples:” on page 175.
- The response for the “CLEAR” command is as follow:

  Are you sure you want to clear this IDT’s counters ?

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

  y

  Counters cleared for IDT xxx
- The response for the “SETUP” command is as follow:

  MCC Maintenance Connection to be Set up ?

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

  y

  Maintenance Connection Set-Up Request queued for IDT xxx

- The response for the “RELEASE” command is as follow:

  WARNING: This command will drop the Maintenance Connection
  All OAM&P activities are disable during downtime
  An ISTB is posted to the IDT during downtime

  MCC Maintenance Connection to be Aborted ?

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

  y

  MCC Maintenance Connection Abort request submitted for IDT xxx

- The responses for the “SMAAUDIT” command are as follow:

  > ***SMAAUDIT SMA yyy START***

  SMA Audit Started for IDT xxx on SMA yyy

  SMA Audit Started for IDT zzz on SMA yyy

  > ***SMAAUDIT SMA yyy STOP***

  SMA Audit Stopped for IDT xxx on SMA yyy

  SMA Audit Stopped for IDT zzz on SMA yyy

  > ***SMAAUDIT IDT xxx QUERY***

  SMA Audit Enable for IDT xxx on SMA yyy

Explanation:

The response to the command “SETUP” and “RELEASE” indicates that the command is sent to the SMA. Because these commands interact with the SMA/RDT, the user must enter the “SUMMARY” or “QCONN” commands to verify the completions.

System action:

When the “SMAAUDIT” command is entered, the system performs the following:

- An internal request is sent to the SMA for each IDT defined on the SMA.
- An individual reply is received from the SMA indicating the state of the connection and, if the connection is up the object model level information and the connection-id.

- The information received from the SMA is compared with that stored in the CM. The system actions are illustrated in Table 5-83, “SMA Audit System Action,” on page 174.

Table 5-83 SMA Audit System Action

CM Connection State	SMA Connection State	System Actions performed by CM
UP	**UP**	None.
UP	**SETUP-IP**	A connection set-up request is sent to the SMA. (The new state of the connection is set to SETUP-IP).
UP	**DOWN**	A connection set-up request is sent to the SMA. (The new state of the connection is set to SETUP-IP).
SETUP-IP	**UP**	Mark the connection state to UP and copy the Object Model information and the connection-id.
SETUP-IP	**SETUP-IP**	None. (A Connection Setup is in progress)
SETUP-IP	**DOWN**	None. (A connection request was sent by the CM, but has not reached the SMA yet).
DOWN	**UP**	Mark the connection state to UP and copy the Object Model information and the connection-id.
DOWN	**SETUP-IP**	A connection set-up request is sent to the SMA. (The new state of the connection is set to SETUP-IP).
DOWN	**DOWN**	A connection set-up request is sent to the SMA. (The new state of the connection is set to SETUP-IP).

It is assumed that, in Table 5-83, “SMA Audit System Action,” on page 174, criteria for setting up a Maintenance Connection (e.g. IDT not off-line, and one PPS Active path on the EOC) are verified.

User action:

Notes

None.

Examples

SUMMARY Command Example:

> Summary

MCC IDT Summary Display:

IDT	SMA	Connection	RDT Type	CM-SMA
1	SMA 0	Down	AccessNode	Down
3	SMA2 2	Up	AccessNode	Up
6	SMA 0	Setup_ip	Generic TMC	Up

QCONN Command Examples:

> Qconn 6

MCC IDT Detailed Information for IDT 6

--> IDT Related Information:
IDT Maintenance State: Manb
Finite State Machine State:Set_up_in_Progress
Current ISTB Reason Posted:Request Sent waiting for Reply
Last Abort Reason : No Active EOC Path
IDT Type : Generic TMC
IPC Communication Status:Control Channel is Up
PC Communication Status:Data Channel is Up
SMA State : Swact Not In Progress
Connection Setup Counter:0
Object Model Type : TR303 Object Model
Object Model Release : 666
Object Model Subrelease: 666
Object Model Version : NIL_V
IDT Connection Timer : 30 Seconds , State: Running
IDT Transient Timer : 2 Minutes , State: Expired

--> SMA Related Information:
SMA Number : SMA 0
SMA Audit State : Timer Running
SMA Audit Timer Value: 5 Minutes
IDT Audited by SMA audit:Enable

> Qconn 3

MCC IDT Detailed Information for IDT 3

--> IDT Related Information:
IDT Maintenance State: Insv
Finite State Machine State:Set_up
Current ISTB Reason Posted:No Reason Posted
Last Abort Reason : No Reason Posted

IDT Type : AccessNode
IPC Communication Status:Control Channel is Up
PC Communication Status:Data Channel is Up
SMA State : Swact Not In Progress
Connection Setup Counter:1
Object Model Type : FWP Object Model
Object Model Release : 12
Object Model Subrelease: 3
Object Model Version : OM02.1
IDT Connection Timer : 30 Seconds , State: Stopped
IDT Transient Timer : 2 Minutes , State: Stopped

--> SMA Related Information:
SMA Number : SMA2 2
SMA Audit State : Timer Running
SMA Audit Timer Value: 5 Minutes
IDT Audited by SMA audit:Enable

DISPLAY Command Example:

>Display 6

MCC IDT Detailed Information for IDT 6

--> IDT Finite State Machine Statistics:
FSM Evt: IDT Maintenance Criteria Removed,Value: 0
FSM Evt: IDT Maintenance Criteria Added,Value: 1
FSM Evt: Connection Confirmation Received,Value: 0
FSM Evt: Transient Reject Timer Expired,value: 3
FSM Evt: Maintenance Cleanup, Value: 0
FSM Evt: Connection Setup Requested by CM,value: 0
FSM Evt: Connection Setup Timer Expired,value: 0
FSM Evt: Connection Aborted by Invalid OM,value: 0
FSM Evt: Connection Aborted by SMA or RDT,value: 0
FSM Evt: Connection Aborted by Stack Error,Value: 0
FSM Evt: Connection Aborted by XPM Swact,value: 0
FSM Evt: Connection Aborted by Application,Value: 0
FSM Evt: Connection Aborted by CI Tool,Value: 0
FSM Evt: Connection Aborted by SMA Audit,Value: 0
FSM Evt: Connection Aborted by Lost SMA Com.,Value: 0

Action : Nil Event , Value: 12
Action: Errors (Should Not Occur), Value: 0
Action : Remove IDT from SMA Audit,Value: 0
Action : Add IDT to SMA Audit, Value: 0
Action : Abort Request Submitted, Value: 0
Action : Setup Request Submitted , Value: 0
Action : Transient Timer Stop, Value: 0

Action : Transient Timer Start, value: 0
Action : Connection Timer Stop, Value, 0
Action : Connection Timer Start, Value: 0
Action: Application Informed Connection Up,value: 0
Action: Application Informed Connection Down,value: 0
Action : Setup Ignored (FSM State Not for Setup), Value: 2

--> ***IDT CM-SMA Communications (IPC) Statistics***
Notification of CM-SMA Communication Up,value: 0
Notification of CM-SMA Communication Down,Value: 0

--> ***Maintenance Connection Setup Criteria:***
Request Analyzed by Finite State Machine:
Denied : FSM State Not for Setup , Value: 0
Denied : IDT Not Equipped, Value: 0
Denied : No Active EOC Path , value: 0
Denied : No Ctrl CM-SMA Communication,Value: 0
Denied : No Data CM-SMA Communication,Value: 0
Granted: All Criteria Met, value: 0

Request Generated from MCC process:
Denied : FSM State Not for Setup , Value: 0
Denied : IDT Not Equipped, Value: 0
Denied : No Active EOC Path , value: 0
Denied : No Ctrl CM-SMA Communication,Value: 0
Denied : No Data CM-SMA Communication,Value: 0
Granted: All Criteria Met, value: 0

Request Generated from SMA-CM IPC:
Denied : FSM State Not for Setup , Value: 0
denied : IDT Not Equipped, Value: 0
Denied : No Active EOC Path , value: 0
Denied : No Ctrl CM-SMA Communication,Value: 0
Denied : No Data CM-SMA Communication,Value: 0
Granted: All Criteria Met, value: 0

Request Generated from IDT Audit:
Denied : FSM State Not for Setup , Value: 0
denied : IDT Not Equipped, Value: 0
Denied : No Active EOC Path , value: 0
Denied : No Ctrl CM-SMA Communication,Value: 0
Denied : No Data CM-SMA Communication,Value: 0
Granted: All Criteria Met, value: 0

Request Generated from SMA Audit:
Denied : FSM State Not for Setup , Value: 0
denied : IDT Not Equipped, Value: 0
Denied : No Active EOC Path , value: 0
Denied : No Ctrl CM-SMA Communication,Value: 0
Denied : No Data CM-SMA Communication,Value: 0
Granted: All Criteria Met, value: 0

STATS PRINT Command Example:

> stats print:

MCC Global Statistics:

--> MCC Process Statistics:
NIL (Errors) :0
SMA Audit Timer Expired :2
IDT Audit Timer Expired :0
SMA Message Received :0
Abort Connection :0
Set Up Connection :0
IDT Maintenance Request :2
No CM SMA Communication:0
Connection or Transient Timer expired:0

--> MCC FSM Statistics:
IDT Maintenance Criteria Removed:0
IDT Maintenance Criteria Added:0
Connection Confirmation Received:0
Transient Reject Timer Expired:0
Maintenance Cleanup 0
Connection Setup Requested by CM:0
Connection Setup Timer Expired:0
Connection Aborted by Invalid OM:0
Connection Aborted by SMA or RDT:0
Connection Aborted by Stack Error:0
Connection Aborted by XPM Swact:0
Connection Aborted by Application:0
Connection Aborted by CI Tool:0
Connection Aborted by SMA Audit:0
Connection Aborted by Lost SMA Com.:0

PMDEBUG Commands

The commands described in this section are located in a sub-directory under the new `AIDEBUG/SCEPTER` directory in UP PMDEBUG. The sub-directory is called `MCC`. *Note: the `SCEPTER` directory is present only in the SMA/SMA2 XPM.*

Table of New/Modified Commands

Table 5-84 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SUMMARY	NEW		MCC
QCONN	NEW		MCC
RCONN	NEW		MCC

Command name: SUMMARY

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The following pieces of information are presented for all eight connection objects when the **SUMMARY** command is entered:

- Normalized Route Instance
- IDT Number (as defined in table RDTINV)
- Connection Number
- RDT Type
- Finite State Machine (FSM) State

Warning

Not Applicable.

Command syntax

"SUMMARY"

Parameter Definitions

There are no parameters on the SUMMARY command.

Responses

Response

```
Route    IDT       Conn
Instance  Number   Number   RDT Type    FSM State
=============================================
   0       ###       ##      <type>     <state>
   1       ###       ##      <type>     <state>
   2       ###       ##      <type>     <state>
   3       ###       ##      <type>     <state>
   4       ###       ##      <type>     <state>
   5       ###       ##      <type>     <state>
   6       ###       ##      <type>     <state>
   7       ###       ##      <type>     <state>

An ‘n/a’ response indicates ‘info not available’.
```

Explanation:

IDT #:Range **0 - 255** or "**n/a**" (not available)
This is the same IDT number from table RDTINV.

Connection #:Range **1 - 23** or "**n/a**" (not available)
This is the TEI used by the protocol stack.

RDT Type:Either **RFT**, **GENTMC, GENCSC,** or **Unassigned**
This is the same as the ***VARTYPE*** field from table RDTINV.

State:Either **Up, Down,** or **Setup IP**

Response is visible on: SUPERNODE.

System action:

None.

User action:

If the data shown for a particular IDT is not what it should be, the user should use the `QCONN` command to get more detailed information on that specific IDT's maintenance connection. The *Route Instance* shown by this command is the parameter to the `QCONN` command.

If all the data shown is what it should be, there is no required user action.

Notes

None.

Example

```
/AIDEBUG/SCEPTER/MCC> summary

Route      IDT       Conn
Instance   Number    Number    RDT Type     FSM State
================================================
   0        3          1      RFT          Up
   11      03         17      RFT          Down
   21      07         23      GENTMC       Setup IP
   3       n/a       n/a      Unassigned   Down
   4       n/a       n/a      Unassigned   Down
   5        44         5      RFT          Up
```

```
   6       n/a       n/a       Unassigned   Down
   7       n/a       n/a       Unassigned   Down

An ‘n/a’ response indicates ‘info not available’.

/AIDEBUG/SCEPTER/MCC>
```

Command name: QCONN

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The `QCONN` command displays detailed connection information for a specific IDT. The *Route Instance* for the particular IDT is a required parameter; it can be obtained from the `SUMMARY` command. The information provided by the `QCONN` command is divided into three sets: general information, context negotiation information, and counters.

General Information:

- Route Instance
- IDT Number
- Connection Number
- RDT Type
- FSM State
- CM Compatible

Context Negotiation Information:

- Negotiated Object Model
- Supported Object Models

Counters:

- Set-up request received
- Connection established
- Incompatible CM level abort
- RDT reject
- RDT reject reason none
- Calling AP Title not supported
- Invalid Calling AE Qualifier
- Invalid Called AP Title
- Invalid Called AE Qualifier
- Failed to parse response
- Unable to format transaction
- Stack error
- XPM SWACT aborts
- RDT aborts
- CM Abort
- Object Model Mismatches
- XPM SWACT Completed
- Connection Already Up
- CM audits
- Application Context Name not supported
- Invalid Calling AP Invoke ID
- Invalid Calling AE Invoke ID
- Invalid Called AP Invoke ID
- Invalid Called AE Invoke ID
- Unable to get transaction
- Transaction Format OK

Warning

Not Applicable.

Command syntax

“QCONN <Route Instance>”

Parameter Definitions

Table 5-85 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Route Instance	0 - 7	The normalized Route Instance identifying the particular connection. Can be obtained from the SUMMARY command.

Response

Route Instance: ### FSM State: <state>
IDT Number: ### RDT Type: <type>
Connection #: ### CM Compatible: <True | False>

Context Negotiation Information:
==========
- Negotiated Object Model: rel = ## subrel = ## ver = <string>
- Supported Object Models:
  1) Subset OID = {##, ##, ##, ##, ##, ##, ##, ##, ##}
     rel = ## subrel = ## ver = <string>
     rel = ## subrel = ## ver = <string>
  2) Subset OID = {##, ##, ##, ##, ##, ##, ##, ##, ##}
     rel = ## subrel = ## ver = <string>
     rel = ## subrel = ## ver = <string>
     rel = ## subrel = ## ver = <string>

An ‘n/a’ response indicates ‘info not avaliable’.

```
Counters:
=========
setup_request_rcvd         = #####  conn_already_up             = #####
conn_established           = #####  om_mismatches               = #####
rdt_rejects                = #####  stack_errors                = #####
rdt_aborts                 = #####  cm_aborts                   = #####
xpm_swact_aborts           = #####  incomptble_cm_aborts        = #####
cm_audits                  = #####  xpm_swact_completed         = #####
rdt_reject_reason_none     = #####  appl_ctxt_name_not_su       = #####
calling_ap_tle_not_sup     = #####  invld_calling_ap_invoc_id   = #####
invld_calling_ae_qualifier = #####  invld_calling_ae_invoc_id   = #####
invld_called_ap_title      = #####  invld_called_ap_invoc_id    = #####
invld_called_ae_qualifier  = #####  invld_called_ae_invoc_id    = #####
failed_to_parse_resp       = #####  unable_to_get_trans         = #####
unable_to_format_trann     = #####  trans_format_ok             = #####
```

Explanation:

Route Instance:Range **0 - 7**
This is the same number entered in the command.

IDT #:Range **0 - 255** or "**n/a**" (not available)
This is the same IDT number from table RDTINV.

Connection #:Range **1 - 23** or "**n/a**" (not available)
This is the TEI used by the protocol stack.

RDT Type:Either **RFT**, **GENTMC, GENCSC,** or **Unassigned**
RFT = TR-303 Preferred; **GENTMC** = TR-303 Only

State:Either **Up, Down,** or **Setup IP**

CM Compatible:Boolean, either **True**, **False**, or **n/a** (not available)

Negotiated OM:Specifies the version of the Object Model being used.

Supported OMs:Lists all the supported Object Models, first by *subset* (giving its OID) and then by each *release* within the subset

Counters:Range **0 - 65536**

Response is visible on: SUPERNODE.

System action:

None.

User action:

If the data shown for the particular IDT is not what it should be, the user should take appropriate action based upon the information presented.

If all the data shown is what it should be, there is no required user action.

Notes

None.

Example

```
/AIDEBUG/SCEPTER/MCC> qconn 0

Route Instance:   0            FSM State: Setup
    IDT Number:   3             RDT Type: RFT
  Connection #: 107        CM Compatible: True
```

```
Context Negotiation Information:
================================
  - Negotiated Object Model: rel = 12  subrel = 3  ver = OM02.1
  - Supported Object Models:
    1) Subset OID = {1, 2, 124, 113527, 1, 1, 13, 6, -1}
          rel = 12  subrel = 3  ver = OM02.1

An 'n/a' response indicates 'info not avaliable'.

Counters:
=========
setup_request_rcvd         =     1     conn_already_up            =     0
conn_established           =     1     om_mismatches              =     0
rdt_rejects                =     0     stack_errors               =     0
rdt_aborts                 =     0     cm_aborts                  =     0
xpm_swact_aborts           =     0     incomptble_cm_aborts       =     0
cm_audits                  = 65536     xpm_swact_completed        =     0
rdt_reject_reason_none     =     0     appl_ctxt_name_not_sup     =     0
calling_ap_tle_not_sup     =     0     invld_calling_ap_invoc_id  =     0
invld_calling_ae_qualifier =     0     invld_calling_ae_invoc_id  =     0
invld_called_ap_title      =     0     invld_called_ap_invoc_id   =     0
invld_called_ae_qualifier  =     0     invld_called_ae_invoc_id   =     0
failed_to_parse_resp       =     0     unable_to_get_trans        =     0
unable_to_format_trans     =     0     trans_format_ok            =     2


/AIDEBUG/SCEPTER/MCC>
```

Command name: RCONN

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command sets all the counters for the specified connection to zero (**0**). The connection is specified by its *Route Instance*.

Warning

Not Applicable.

Command syntax

“RCONN <Route Instance>”

Parameter Definitions

Table 5-86 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Route Instance	0 - 7	The normalized Route Instance identifying the particular connection. Can be obtained from the SUMMARY command.

Response

“The MCC connection counters have been reset for Route Instance: #”

Explanation:

A simple text message is printed to the screen indicating what has just occurred.

#: Range **0-7**
This is the same number entered in the command.

Response is visible on: SUPERNODE.

System action:

None.

User action:

None.

Notes

None.

Example

```
/AIDEBUG/SCEPTER/MCC> RCONN 1


The MCC connection counters have been reset for Route Instance:
1

/AIDEBUG/SCEPTER/MCC>
```

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1718mm.aa17

This MM addresses the Man Machine Interface for the following Activity:

- AN1718-SCEPTER: APPLICATIONS INTERFACE AND TRANSACTION DEFINITION

Directories

This activity will create two new directories:

- AI: a directory accessible from the CI.
- KandyIPC: a directory accessible from the CI for debugging the Interprocessor Communication component.

Figure 5-7 Applications Interface Command Tree Structure

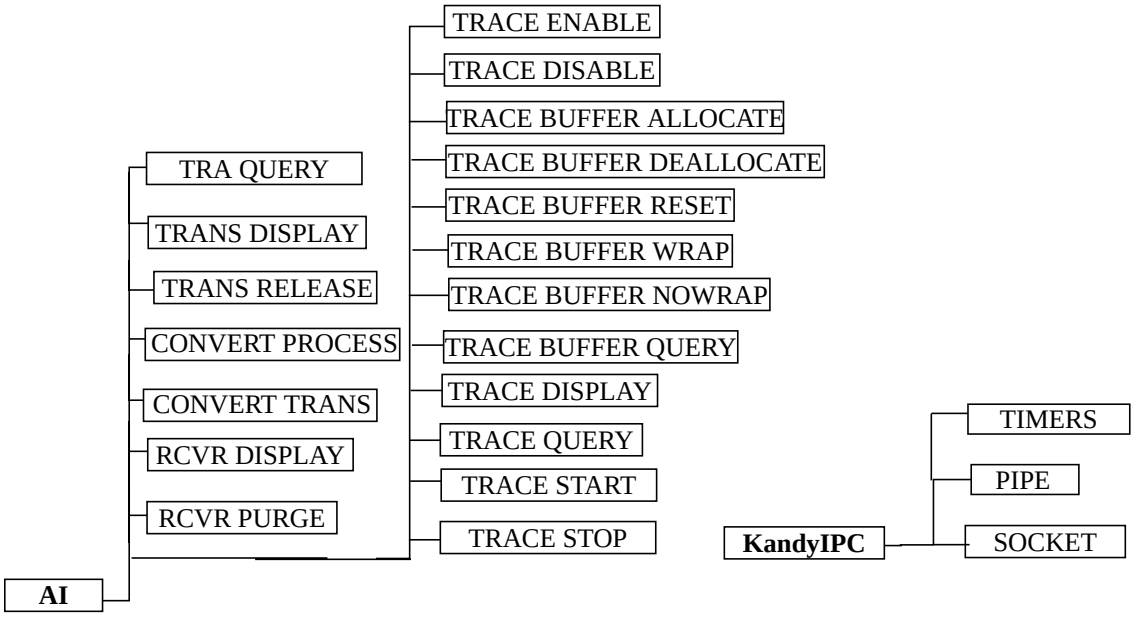


Table of New/Modified Directories

Table 5-87 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
AI	new		supernode	res
KandyIPC	new		supernode	res

Accessing directory:AI

AI is is an increment from the CI prompt.

To access

From the CI prompt enter:

AI

To return to CI

QUIT

Accessing directory:KandyIPC

KandyIPC is an increment from the CI prompt..

To access

From the CI prompt enter:

KandyIPC

To return to CI

QUIT

Commands

Router Debugging

Directory Path: AI

TRA Commands *(Transaction Resource Allocator Commands)*

TRA QUERY - Display the Status of the Transaction Resource Allocator.

TRANS Commands *(Transaction Commands)*

TRANS DISPLAY ALL - Display All Allocated Transactions

TRANS DISPLAY ADDR <Address of transaction> - Display Transaction

TRANS DISPLAY TYPE <Route Class> - Display Transactions of Specified Route Class (Transaction Type)

TRANS RELEASE ALL - Release all transactions currently allocated.

TRANS RELEASE ADDR <Address of transaction> - Release Transaction

CONVERT Commands *(Conversion commands)*

CONVERT TRANS TYPE <Transaction type meaning> - Convert the transaction type meaning to the transaction type value.

CONVERT TRANS VAL <Transaction type value> - Convert the transaction type value to the transaction type meaning.

CONVERT PROCESS <process id> - Convert the process id to a process name.

RCVR Commands *(Receiver Commands)*

RCVR DISPLAY <Address of Receiver> - Display Contents of Receiver

RCVR PURGE <Address of Receiver> - Purge receiver; free Contents of Receiver

TRACE Commands

TRACE ENABLE ALL - Enable tracing of all events.

TRACE ENABLE SUBSYSTEM <subsystem> - Enable tracing of events associated with the given subsystem

TRACE ENABLE TRANS <transaction type> - Enable tracing for a specific transaction.

TRACE DISABLE ALL - The command disables tracing of all events.

TRACE DISABLE SUBSYSTEM <subsystem> - Disable tracing of a specific subsystem

TRACE DISABLE TRANS <transaction type> -Disable tracing of a specific transaction event.

TRACE BUFFER ALLOCATE <buffer size> - Allocate a trace buffer for tracing.

TRACE BUFFER DEALLOCATE - Deallocate the trace buffer.

TRACE BUFFER RESET - Empty the trace buffer and reset the characteristics of the trace buffer to the default state.

TRACE BUFFER WRAP - Set the trace buffer to wrap enabled .

TRACE BUFFER NOWRAP - Set the trace buffer to wrap disabled.

TRACE BUFFER QUERY - Display the number of trace buffers allocated.

TRACE DISPLAY - Display the contents of the trace buffer.

TRACE QUERY - Display the events enabled for the trace buffer and whether wrapping is enabled or disabled.

TRACE START - Start tracing events.

TRACE STOP - Stop tracing events.

KandyIPC Debugging

Directory Path: KandyIPC

PIPE - Display or reset a pipe.

SOCKET - Show information on an open socket

TIMERS - Configure pipe and socket timers

Table of New/Modified Commands

Table 5-88 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRA QUERY	new		AI
TRANS DISPLAY ALL	new		AI
TRANS DISPLAY ADDR	new		AI
TRANS DISPLAY TYPE	new		AI
TRANS RELEASE ADDR	new		AI
TRANS RELEASE ALL	new		AI
RCVR DISPLAY ALL	new		AI
RCVR DISPLAY ADDR	new		AI
RCVR PURGE	new		AI
CONVERT TRANS TYPE	new		AI
CONVERT TRANS VAL	new		AI
CONVERT PROCESS	new		AI
TRACE ENABLE ALL	new		AI
TRACE ENABLE SUBSYSTEM	new		AI
TRACE ENABLE TRANS	new		AI
TRACE DISABLE ALL	new		AI
TRACE DISABLE SUBSYSTEM	new		AI
TRACE DISABLE TRANS	new		AI
TRACE BUFFER ALLOCATE	new		AI
TRACE BUFFER DEALLOCATE	new		AI
TRACE BUFFER RESET	new		AI
TRACE BUFFER WRAP	new		AI
TRACE BUFFER NOWRAP	new		AI
TRACE BUFFER QUERY	new		AI
TRACE DISPLAY	new		AI
TRACE QUERY	new		AI
TRACE START	new		AI
TRACE STOP	new		AI

Table 5-88 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
PIPE <parameters>DISPLAY	new		KandyIPC
PIPE <parameters> RESET	new		KandyIPC
PIPE <parameters> ZEROCNT	new		KandyIPC
SOCKET	new		KandyIPC
TIMERS PIPE	new		KandyIPC
TIMERS RSOCK	new		KandyIPC
TIMERS USOCK	new		KandyIPC
TIMERS DISPLAY	new		KandyIPC

Command name: TRA QUERY

From AI Directory

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command displays the current status of TRA.

State: Enabled/Empty/Exhausted

Enabled - The TRA is initialized and ok to use.

Exhausted - Normal allocations suspended in TRA, only priority allocations allowed

Empty - No more transactions in TRA

Number of Free Transactions.

Number of Allocated (InUse) Transactions.

Number of Stale Transactions.

Number of Users using TRA

Warning

Not Applicable

Command syntax

TRA QUERY

Parameter Definitions

None.

Responses

There is one response:

Response

State: Enabled
Free = <free count>, Allocated = <allocated count>, Stale = <stale count>
Number of Users:<number of users>

Explanation:

State: The current state of TRA (Enabled/Exhausted/Empty)

Free Transactions: The transactions that are free (not currently in use).

Allocated Transactions: The transactions that are in use.

Stale: The number of Stale Transactions (transactions may still be in use, but are 2-4 minutes older than transactions which are listed as allocated)

Number of Users: Number of Users using TRA

System action:

None.

User action:

If the state is exhausted or empty, the user should query receivers to determine where the transactions are allocated.

Notes

None.

Examples

Command: TRA QUERY

Response: State: Enabled
Free = 200, Allocated = 0, Stale = 0
Number of Users:0

Command: TRA QUERY

Response: State: Exhuasted
Free = 32, Allocated = 168, Stale = 0
Number of Users:0

Command: TRA QUERY

Response: State: Empty
Free = 0, Allocated = 168, Stale = 32
Number of Users:0

Command name: TRANS DISPLAY

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command displays transactions. This information is valid at the time of command invocation; however, because the Transaction Pool is constantly used, the status of individual transactions may change.

Warning

Not Applicable

Command syntax

TRANS DISPLAY {ALL | ADDR <address in hex>
| TYPE <transaction type value> }

Parameter Definitions

ALL - This key word indicated you wish to display all transactions.

TYPE <transaction type value> - The transaction type for the transactions you wish to display.
This can be obtained from the TRANS DISPLAY ALL or the TRANS DISPLAY ADDRESS command.

ADDRESS <address in hex> - The address in hex of the transaction that you wish to display.
This address can be obtained from the TRANS DISPLAY ALL or TRANS DISPLAY TYPE command.

TRANS DISPLAY ALL

Responses

There is one response:

Response

```
Allocated Transactions: <##>
Address       Route Class                        Correlator   Route   Staleness
         Value             Meaning                    Id      Instance     Id
=============================================================================
<#######> <##>       <meaning>                      <#>       <###>       <#>

<#######> <##>       <meaning>                      <#>       <###>       <#>

<#######> <##>       <meaning>                      <#>       <###>       <#>
```

Explanation:

Allocated Transactions: The number of transactions that are inuse or stale (not free).

Address: The memory address of the transaction object (in hex)

Route Class Value: The transaction type of request

Route Class Meaning: The corresponding meaning of the transaction type.

Correlator Id: The invoke id of the transaction

Route Instance: The internal idt number associated with the transaction

Staleness Id: A number assigned to the transaction to ensure the user of the transaction is the owner of the transaction.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TRANS DISPLAY ALL

Response:

Address	Route Class Value	Route Class Meaning	Correlator Id	Route Instance	Staleness Id
04B97B10	32	GET_VTN_ID_RSP	0	177	1
04B97B90	30	DELETE_ACCESS_CHANNEL_REQ	1	178	1
04B97C10	25	MODIFY_ANALOG_LINE_REQ	2	179	1
04B97C90	5	EVENT_DISCRIMINATOR_FAILED_IND	3	180	1
04B97D10	32	GET_VTN_ID_RSP	0	181	1

TRANS DISPLAY TYPE <transaction type

Responses

There is one response

Response

```
Allocated Transactions: <##>
Address       Route Class                        Correlator   Route   Staleness
         Value             Meaning                    Id      Instance     Id
=============================================================================
<#######> <##>       <meaning>                       <#>       <###>       <#>

<#######> <##>       <meaning>                       <#>       <###>       <#>

<#######> <##>       <meaning>                       <#>       <###>       <#>
```

Explanation:

Allocated Transactions: The number of transactions which are in use or stale (not free).

Address: The memory address of the transaction object (in hex)

Route Class Value: The transaction type of request

Route Class Meaning: The corresponding meaning of the transaction type.

Correlator Id: The invoke id of the transaction

Route Instance: The internal idt number associated with the transaction

Staleness Id: A number assigned to the transaction to ensure the user of the transaction is the owner of the transaction.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TRANS DISPLAY TYPE 32

Response:

```
Total Allocated Transactions: 8
Address       Route Class                      Correlator   Route   Staleness
         Value             Meaning                    Id      Instance     Id
=============================================================================
=====
 04B97D10    32       GET_VTN_ID_RSP                 0          181        1

 04B97F90    32       GET_VTN_ID_RSP                 1          186        1
```

Command: TRANS DISPLAY TYPE 20

Response:

```
Total Allocated Transactions: 7
Address       Route Class                      Correlator   Route   Staleness
         Value             Meaning                    Id      Instance     Id
=============================================================================
=====
 04B97E90    20       CREATE_ISDN_LINE_REQ           3          184        1

 04B98010    20       CREATE_ISDN_LINE_REQ           1          187        1
```

Command: TRANS DISPLAY ADDR <address of transaction>

Responses

There are two responses.

Response 1

```
Route Class:                    <string>
Correlator Id:                  <number>
Route Instance:                 <number>
StaleNess Id:                   <number>
Size:                           <size>
```

```
============================================================
Attribute:                          <attribute>
------------------------------------------------------------
```

Explanation:

Route Class: The transaction type meaning

Correlator Id: The invoke id of the transaction .

Route Instance: The internal idt number associated with the transaction.

Staleness Id: A number assigned to the transaction to ensure the user of the transaction is the owner of the transaction. (If staleness id = -1, then the transaction is free).

Size: The size of the transaction.

Attributes: A list of AVA's stored with the transaction.

System action:

None.

User action:

None.

Response 2

Not a Transaction

Explanation:

The address specified was not the address of a transaction.

System action:

None.

User action:

Select a valid transaction (using the TRANS DISPLAY ALL command) and re-execute the command.

Notes

None.

Examples

Command:TRANS DISPLAY ADDR 04B82610

Response:

```
Route Class:                    GET_VTN_ID_RSP
Correlator Id:                  190
Route Instance:                 3
StaleNess Id:                   1
Size:                           10


============================================================
Attribute:                      SHORT_CIRCUIT_FUNCTION
------------------------------------------------------------
Short Circuit Function:         apply

============================================================
Attribute:                      TEST_RESPONSE_CIRCUIT_ID
------------------------------------------------------------
                                1

============================================================
Attribute:                      TAFFI_OBJECT_INSTANCE
------------------------------------------------------------
Object Instance Type:           nil instance
                                generic::               0
```

Command:TRANS DISPLAY ADDR 04BE4416

Response:

```
        Not a Transaction
```

Command name: TRANS RELEASE ALL

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command releases the transactions.

Warning

WARNING: This command releases transactions. SWERRs may occur.
Ensure all IDTs are off-lined before continuing.
Please confirm (“YES”, “Y”, “NO”, or “N”):

Command syntax

TRANS RELEASE ALL

Parameter Definitions

None

Responses

There is one response.

Response

(Nothing is printed to the screen)

Explanation:

The transaction(s) have been released

System action:

None

User action:

None

Notes

None

Examples

Command: TRANS RELEASE ALL

Response:

>WARNING: This command releases transactions. SWERRs may occur.
Ensure all IDTs are off-lined before continuing.
Please confirm (“YES”, “Y”, “NO”, or “N”):
>Yes

Command name: TRANS RELEASE ADDR

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command releases the transaction.

Warning

None

Command syntax

TRANS RELEASE ADDR

Parameter Definitions

None

Responses

There are two responses.

Response 1

Transaction Released

Explanation:

The transaction has been released

System action:

None

User action:

None

Response 2

Not a Transaction.

Explanation:

The address specified was not the address of a transaction.

System action:

None

User action:

Select a valid transaction (using the TRANS DISPLAY ALL command) and re-execute the command.None

Notes

None

Examples

Command: TRANS RELEASE ADDR 04B82390

Response:

Transaction Released

Command: TRANS RELEASE ADDR 04BE4416

Response:

Not a Transaction.

Command name: CONVERT TRANS

From the AI Directory

Command type

Non-MENU

Command target

SUPERNODE

Command availablility

RES

Command description

This command
displays the transaction type numerical value corresponding to the transaction type meaning given, or
displays the transaction type meaning when given the transaction type value.

Warning

Not Applicable.

Command syntax

CONVERT TRANS {TYPE <Transaction type meaning> |

VAL <Transaction type value> }

Parameter Definitions

TYPE <Transaction type meaning> - A character string representing the transaction type (route class); this character string may be obtained from the TRANS DISPLAY command.

VAL <Transaction type value> - The numerical value of the transaction type (route class value) in decimal. This may be obtained from the TRANS DISPLAY comand.

CONVERT TRANS TYPE

Responses

There two responses.

Response 1

<Transaction type meaning> = <Transaction type value>

Explanation:

The specified transaction type value corresponds to the transaction type meaning.

System action:

None.

User action:

None.

Response 2

Unknown Transaction Type = <Transaction type meaning>

Explanation:

The specified transaction type meaning was not a known valid transaction type.

System action:

None.

User action:

Use the CONVERT HELP command to identify the correct transaction type meaning, and re-execute the command.

Notes

None.

Examples

Command: **convert trans type action_monitor_rtu_stop_ind**
Response: ACTION_MONITOR_RTU_STOP_IND = HEX 0074
Command: **convert trans type whatever**
Response: Unknown Transaction Type = WHATEVER

CONVERT TRANS VAL

Responses

There is one response.

Response 1

<Transaction type value>=<Transaction type meaning>

Explanation:

The specified transaction type meaning corresponds to the transaction type value.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: **convert trans val 115**

Response: HEX 0073 = ACTION_MONITOR_RTU_START_IND

Command name: CONVERT PROCESS

From the AI Directory

Command type

Non-MENU

Command target

SUPERNODE

Command availablility

RES

Command description

This command converts a process id to a process name.

Warning

Not Applicable.

Command syntax

CONVERT PROCESS <process id>

Parameter Definitions

<process id> - the id of the process, made up of two numbers, id1 and id2.

Responses

There is one response:

Response

Process Id = <process id>: <process name>

Explanation:

The process name is the name corresponding to the process given. If the process name is dead, then the process is not being used.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: CONVERT PROCESS #2508 #2010
Response: Process Id = #2508 #2010: AIPIPE
Command: CONVERT PROCESS #2507 #2011

Response: Process Id = #2508 #2010: dead

Command name: RCVR DISPLAY

From the AI Directory

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command displays the contents of a receiver.

Warning

Not Applicable

Command syntax

RCVR DISPLAY {ADDR <address> |
ALL}

Parameter Definitions

ALL - keyword indicating to display all receivers.

ADDR <address> - the address of the receiver.

RCVR DISPLAY ADDR <address>

Responses

There are two responses.

Response 1

<Type of Receiver>, Owner =<address of owner>
Address of Receiver <address of receiver>
Transactions = <trans_count>

Explanation:

Type of Receiver- indicates whether receiver is a call processing process (CallP) or a non-call processing process (Non-CallP). It indicates whether the process has a notification procedure (switched) or not (non-switched). In addition, it indicates whether receiver is registered in the router (in router).

Owner - the address of the receiver's owner (in hex).

Address of Receiver - The address of the receiver (in hex).

Transactions: The number of transactions in the receiver

System action:

None.

User action:

None.

Response 2

Not a Reciever

Explanation:

The specified address was not the address of a receiver.

System action:

None.

User action:

Select a valid address and re-execute the command.

Notes

None.

Examples

Command: RCVR DISPLAY ADDR 04BE42FC

Response:

Non-CallP Non-Switched Receiver, In Router. Owner = 2515 409E
Address of Receiver 04BE458E
Transactions = 0

Command: RCVR DISPLAY ADDR 04be4417

Response:

Not a Receiver

RCVR DISPLAY ALL

Responses

There is one response.

Response 1

```
==========================================================================

Count in Free Pool = <free_count>, Count in Allocated Pool = <allocated_count>

==========================================================================
<Type of Receiver>, Owner =<address of owner>
Address of Receiver <address of receiver>
Transactions = <trans_count>

<Type of Receiver>, Owner =<address of owner>
Address of Receiver <address of receiver>
Transactions = <trans_count>
.
.
```

Explanation:

Count in Free Pool: The number of receivers which are free.

Count in Allocated Pool: The number of receivers which have been allocated.

List of Receivers containing:

Type of Receiver- indicates whether receiver is a call processing process (CallP) or a non-call processing process (Non-CallP). It indicates whether the process has a notification procedure (switched) or not (non-switched). In addition, it indicates whether receiver is registered in the router (in router).

Owner - the address of the receiver's owner (in hex).

Address of Receiver - the address of the receiver (in hex).

Transactions: The number of transactions in the receiver

System action:

None.

User action:

None.

Notes

None.

Examples

Command: RCVR DISPLAY ALL

Response:

```
==========================================================================

Count in Free Pool = 184, Count in Allocated Pool = 16

==========================================================================


Non-CallP Non-Switched Receiver, In Router. Owner = 2508 7012
Address of Receiver 04BE400C
Transactions = 0

Non-CallP Switched Receiver, In Router. Owner = 28BC 0000
Address of Receiver 04BE429E
Transactions = 10

Non-CallP Switched Receiver, In Router. Owner = 2515 509D
Address of Receiver 04BE46A8
Transactions = 3
```

Command name: RCVR PURGE

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command purges all the transactions from the receiver.

Warning

None

Command syntax

RCVR PURGE <address of receiver>

Parameter Definitions

<address of reciever> - the address of the receiver you wish to purge.

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The receiver is purged; all transactions in the receiver are released.

System action:

None.

User action:

None.

Response 1

Not a Receiver

Explanation:

The address specified was not the address of a receiver..

System action:

None.

User action:

Select a valid address and re-execute the command.

Notes

None.

Examples

Command: RCVR PURGE 04be46a8
Response:
Command: RCVR PURGE 04B82790
Response: Not a Receiver

Command name: TRACE ENABLE ALL

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command enables tracing of all events.

Warning

None

Command syntax

TRACE ENABLE ALL

Parameter Definitions

N/A

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The tracing of all events is enabled.

System action:

None.

User action:

None.

Response 2

Unable to Enable All Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

There is no trace buffer allocated; therefore, you not able to enable tracing..

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Notes

None.

Examples

Command: TRACE ENABLE ALL
Response:

Command: TRACE ENABLE ALL
Response: Unable to Enable All Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Command name: TRACE ENABLE SUBSYSTEM

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command enables tracing of events associated with the given subsystem.

Warning

None

Command syntax

TRACE ENABLE SUBSYSTEM <subsystem>

Parameter Definitions

subsystem : AI, MCC, LT, LM, LP, LA, EH

The following are a list of events that will be traced for each subsystem:

AI = AI Events
- All events which are *not* associated with a transaction.

MCC = Transactions used by Maintenance and Connection Control:
- action_mcc_setup_initiate_ind
- action_mcc_setup_success_ind
- action_mcc_cm_abort_ind
- action_mcc_audit_initiate_ind
- action_mcc_audit_information_ind
- action_mcc_xpm_abort_ind
- action_mcc_xpm_abort_all_ind
- action_mcc_swact_completed_ind

LT = Transactions used by Line Test:
- std_success_rsp
- std_err_rsp
- get_line_req
- get_isdn_line_rsp
- get_isdn_fpt_req
- get_isdn_fpt_rsp
- get_circuit_pack_req
- get_circuit_pack_rsp
- action_ebs_run_integrity_test_req
- action_ebs_run_integrity_test_rsp
- action_operate_isdn_loopback_req
- action_release_isdn_loopback_req
- action_start_corrupted_crc_test_req
- action_connect_looparound_req
- action_connect_looparound_rsp
- action_mta_connect_req
- action_mta_change_configuration_req
- action_mta_change_termination_req
- action_mta_disconnect_req
- action_mta_reset_timer_req
- get_mtapt_req
- get_mtapt_rsp
- action_change_cutoff_relay_req

- action_rtu_connect_req
- action_rtu_connect_rsp
- action_rtu_emulate_mtu_req
- action_rtu_emulate_mtu_rsp
- action_rtu_emulate_drtu_req
- action_rtu_generate_tone_req
- action_rtu_monitor_talk_path_req
- action_rtu_short_circuit_req
- action_rtu_disconnect_req
- action_rtu_reset_timer_req
- action_connect_test_response_circuit_req
- action_connect_test_response_circuit_rsp
- action_release_test_response_circuit_req
- action_operate_test_response_circuit_req
- action_offhook_detection_test_req
- action_offhook_detection_test_rsp
- event_rtu_emulate_mtu_ind
- action_stop_corrupted_crc_test_req
- action_mta_reset_timer_initiate_ind
- event_mta_reset_timer_failure_ind
- action_rtu_reset_timer_initiate_ind
- event_rtu_reset_timer_failure_ind
- create_isdn_per_system_profile_req
- action_initialize_isdn_pm_attributes_req
- action_initialize_isdn_pm_history_req
- action_monitor_mtapt_start_ind
- action_monitor_mtapt_stop_ind
- action_monitor_rtu_start_ind
- action_monitor_rtu_stop_ind

LM = Transactions used by Line Maintenance:

- std_success_rsp
- std_err_rsp
- action_change_line_primary_state_req
- get_line_req
- get_analog_line_rsp
- get_ebs_line_rsp
- get_isdn_line_rsp
- get_isdn_fpt_req
- get_isdn_fpt_rsp
- get_circuit_pack_req
- get_circuit_pack_rsp

LP = Transactions used by Line Provisioning:

- std_success_rsp
- std_err_rsp
- event_new_isdn_line_ind

- create_analog_line_req
- create_ebs_line_req
- create_ilc_line_req
- create_isdn_line_req
- create_isdn_fpt_req
- create_access_channel_req
- create_line_rsp
- modify_analog_line_req
- modify_isdn_fpt_req
- action_change_line_primary_state_req
- delete_line_req
- delete_access_channel_req
- get_vtn_id_req
- get_vtn_id_rsp
- get_ds0_path_id_req
- get_ds0_path_id_rsp
- create_transport_channel_req
- create_cross_connection_req
- create_cross_connection_rsp
- delete_transport_channel_req
- delete_cross_connection_req

LA = Transactions used by Line Audit:

- std_err_rsp
- get_line_req
- get_analog_line_rsp
- get_ebs_line_rsp
- get_ilc_line_rsp
- get_isdn_line_rsp
- get_isdn_fpt_req
- get_isdn_fpt_rsp
- get_access_channel_req
- get_vtn_port_number_req
- get_vtn_port_number_rsp
- get_transport_channel_req
- get_cross_connection_req
- get_cross_connection_rsp
- get_circuit_pack_req
- get_circuit_pack_rsp

EH = Transactions used by Event Handler:

- std_success_rsp
- std_err_rsp
- event_new_isdn_line_ind
- create_discriminator_req
- event_discriminator_failed_ind
- action_reg_alch_req

- action_reg_nen_req
- action_reg_isdn_req
- action_acr_req
- get_alch_req
- get_alch_rsp
- event_alch_ind
- get_nen_req
- get_nen_rsp
- event_nen_ind
- event_alarm_ind
- event_isdn_secondary_state_change_ind
- event_isdn_ntoh_state_change_ind
- get_discriminator_req
- get_discriminator_rsp
- modify_discriminator_req

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The tracing of all events within the subsystem specified is enabled.

System action:

None.

User action:

None.

Response 2

Unable to Enable Subsystem Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

A trace buffer is not allocated; therefore, you are not able to enable tracing.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Notes

None.

Notes

Examples

Command: TRACE ENABLE SUBSYTEM AI
Command: TRACE ENABLE SUBSYSTEM LP

Command name: TRACE ENABLE TRANS

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command enables tracing for a specific transaction.

Warning

None.

Command syntax

TRACE ENABLE TRANS <route class>

Parameter Definitions

route class: The type of transaction to trace.

- nil_transaction IS #0000[1]
- std_success_rsp IS #0001
- std_err_rsp IS #0002
- event_new_isdn_line_ind IS #0003
- create_discriminator_req IS #0004
- event_discriminator_failed_indIS #0005
- action_reg_alch_req IS #0006
- action_reg_nen_req IS #0007
- action_reg_isdn_req IS #0008
- action_acr_req IS #0009
- get_alch_req IS #000a
- get_alch_rsp IS #000b
- event_alch_ind IS #000c
- get_nen_req IS #000d
- get_nen_rsp IS #000e
- event_nen_ind IS #000f
- event_alarm_ind IS #0010
- create_analog_line_req IS #0011
- create_ebs_line_req IS #0012
- create_ilc_line_req IS #0013
- create_isdn_line_req IS #0014
- create_isdn_fpt_req IS #0015
- create_access_channel_req IS #0016
- create_line_rsp IS #0017
- std_line_err_rsp IS #0018
- modify_analog_line_req IS #0019
- modify_ilc_line_req IS #001a
- modify_isdn_fpt_req IS #001b
- action_change_line_primary_state_req IS #001c
- delete_line_req IS #001d
- delete_access_channel_req IS #001e
- get_vtn_id_req IS #001f
- get_vtn_id_rsp IS #0020
- get_ds0_path_id_req IS #0021
- get_ds0_path_id_rsp IS #0022
- create_transport_channel_req IS #0023
- create_cross_connection_req IS #0024
- create_cross_connection_rsp IS #0025
- delete_transport_channel_req IS #0026
- delete_cross_connection_req IS #0027
- get_line_req IS #0028
- get_analog_line_rsp IS #0029

[1]Enabling the nil_transaction also enables the AI Subsystem.

- get_ebs_line_rsp IS #002a
- get_ilc_line_rsp IS #002b
- get_isdn_line_rsp IS #002c
- get_isdn_fpt_req IS #002d
- get_isdn_fpt_rsp IS #002e
- get_access_channel_req IS #002f
- get_vtn_port_number_req IS #0030
- get_vtn_port_number_rsp IS #0031
- get_transport_channel_req IS #0032
- get_cross_connection_req IS #0033
- get_cross_connection_rsp IS #0034
- get_circuit_pack_req IS #0035
- get_circuit_pack_rsp IS #0036
- action_ebs_run_integrity_test_req IS #0037
- action_ebs_run_integrity_test_rsp IS #0038
- action_operate_isdn_loopback_req IS #0039
- action_release_isdn_loopback_req IS #003a
- action_start_corrupted_crc_test_req IS #003b
- action_connect_looparound_req IS #003c
- action_connect_looparound_rsp IS #003d
- action_mta_connect_req IS #003e
- action_mta_change_configuration_req IS #003f
- action_mta_change_termination_req IS #0040
- action_mta_disconnect_req IS #0041
- action_mta_reset_timer_req IS #0042
- get_mtapt_req IS #0043
- get_mtapt_rsp IS #0044
- action_change_cutoff_relay_req IS #0045
- action_rtu_connect_req IS #0046
- action_rtu_connect_rsp IS #0047
- action_rtu_emulate_mtu_req IS #0048
- action_rtu_emulate_mtu_rsp IS #0049
- action_rtu_emulate_drtu_req IS #004a
- action_rtu_generate_tone_req IS #004b
- action_rtu_monitor_talk_path_req IS #004c
- action_rtu_short_circuit_req IS #004d
- action_rtu_disconnect_req IS #004e
- action_rtu_reset_timer_req IS #004f
- action_connect_test_response_circuit_req IS #0050
- action_connect_test_response_circuit_rsp IS #0051
- action_release_test_response_circuit_req IS #0052
- action_operate_test_response_circuit_req IS #0053
- action_offhook_detection_test_req IS #0054
- action_offhook_detection_test_rsp IS #0055
- action_trc_test_req IS #0056
- action_isdn_restore_req IS #0057
- event_isdn_secondary_state_change_ind IS #0058

- event_isdn_ntoh_state_change_ind IS #0059
- action_reg_alch_rsp IS #005a
- action_reg_nen_rsp IS #005b
- action_reg_isdn_rsp IS #005c
- event_rtu_emulate_mtu_ind IS #005d
- action_mcc_setup_initiate_ind IS #005e
- action_mcc_setup_success_ind IS #005f
- action_mcc_cm_abort_ind IS #0060
- action_mcc_audit_initiate_ind IS #0061
- action_mcc_audit_information_ind IS #0062
- action_mcc_xpm_abort_ind IS #0063
- action_mcc_xpm_abort_all_ind IS #0064
- action_mcc_swact_completed_ind IS #0065
- action_stop_corrupted_crc_test_req IS #0066
- get_discriminator_req IS #0067
- get_discriminator_rsp IS #0068
- modify_discriminator_req IS #0069
- action_mta_reset_timer_initiate_ind IS #006a
- event_mta_reset_timer_failure_ind IS #006b
- action_rtu_reset_timer_initiate_ind IS #006c
- event_rtu_reset_timer_failure_ind IS #006d
- create_isdn_per_system_profile_req IS #006e
- action_initialize_isdn_pm_attributes_req IS #006f
- action_initialize_isdn_pm_history_req IS #0070
- action_monitor_mtapt_start_ind IS #0071
- action_monitor_mtapt_stop_ind IS #0072
- action_monitor_rtu_start_ind IS #0073
- action_monitor_rtu_stop_ind IS #0074

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The tracing of the specified transaction is enabled.

System action:

None.

User action:

None.

Response 2

Unable to Enable Event Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

A trace buffer is not allocated; therefore, tracing can not be enabled.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Notes

None.

Examples

Command: TRACE ENABLE TRANS 1
Command: TRACE ENABLE TRANS 26

Command name: TRACE DISABLE ALL

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command disables tracing of all events.

Warning

None.

Command syntax

TRACE DISABLE ALL

Parameter Definitions

N/A

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The tracing of all events is disabled.

System action:

None.

User action:

None.

Response 2

Unable to Disable All Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

A trace buffer is not allocated; therefore, tracing can not be disabled.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Examples

Command: TRACE DISABLE ALL

Command name: TRACE DISABLE SUBSYSTEM

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command disables tracing of a specific subsystem.

Warning

None.

Command syntax

TRACE DISABLE SUBSYSTEM <subsystem name>

Parameter Definitions

Subsystem Name: Defined previously.

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The tracing for the specified subsystem is disabled.

System action:

None.

User action:

None.

Response 2

Unable to Disable Subsystem Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

A trace buffer is not allocated; therefore, tracing cannot be disabled.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Notes

When transaction events overlap between subsystems, the events are disabled based on the command and the subsystem. Checks are not made for overlap.

Examples

Command: TRACE DISABLE SUBSYSTEM MCC
Command: TRACE DISABLE SUBSYSTEM EH

Command name: TRACE DISABLE TRANS

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command disables tracing of a specific transaction event.

Warning

None.

Command syntax

TRACE DISABLE TRANS <route class>

Parameter Definitions

route class: The type of transaction to trace.

Responses

There are two responses.

Response 1

(Nothing is printed to the screen)

Explanation:

The tracing of the specified transaction is disabled.

System action:

None.

User action:

None.

Response 2

Unable to Disable Event Tracing
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

A trace buffer is not allocated; therefore, tracing cannot be disabled.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Notes

A transaction event may be enabled by a subsystem; however,the command makes no check for overlap.

Examples

Command: TRACE DISABLE TRANS #33

Command: TRACE DISABLE TRANS 14

Command name: TRACE BUFFER ALLOCATE

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command allocates a trace buffer for tracing.

Warning

None.

Command syntax

TRACE BUFFER ALLOCATE <buffer size>

Parameter Definitions

Buffer Size: The number of trace events to record.

Responses

None.

Notes

The maximum trace buffer size is 2000 events. The buffer is set to wrapping enabled with no events enabled as its default.

Examples

Command: TRACE BUFFER ALLOCATE 2000
Command: TRACE BUFFER ALLOCATE 100

Command name: TRACE BUFFER DEALLOCATE

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command deallocates the trace buffer.

Warning

None.

Command syntax

TRACE BUFFER DEALLOCATE

Parameter Definitions

None.

Responses

There are two reponses.

Response 1

(Nothing is printed to the screen)

Explanation:

The trace buffer has been deallocated.

System action:

None.

User action:

None.

Response 2

Unable to Deallocate Trace Buffer
No Trace Buffer Allocated

Explanation:

A trace buffer is not allocated; therefore, there is not a trace buffer to deallocate.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Notes

None

Examples

Command: TRACE BUFFER DEALLOCATE
Response: Unable to Deallocate Trace Buffer
No Trace Buffer Allocated
Command: TRACE BUFFER DEALLOCATE
Response:

Command name: TRACE BUFFER RESET

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command empties the trace buffer and resets the characteristics of the trace buffer to the default state. The default state is wrapped with all trace events disabled.

Warning

None.

Command syntax

TRACE BUFFER RESET

Parameter Definitions

None.

Responses

None.

Notes

The default state of the trace buffer is wrap enabled with all trace events disabled.

Examples

Command: TRACE BUFFER RESET

Command name: TRACE BUFFER WRAP

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The trace buffer can be in two modes: wrap enabled and wrap disabled. In wrap enabled, the most recent events are recorded discarding older events to record the newer events. The number of events in the trace buffer is equal to the size of the trace buffer.

The command sets the state of the trace buffer to wrap enabled.

Warning

None.

Command syntax

TRACE BUFFER WRAP

Parameter Definitions

None.

Responses

There are two responses.

Response 1

Unable to Enable Wrap
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

The trace buffer cannot be set to wrap enabled since a trace buffer has not been allocated.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Response 2

Trace Is Wrapping.

Explanation:

The trace buffer has been set to wrap enabled.

System action:

None.

User action:

None.

Notes

Wrap enabled is the default state of the trace buffer.

Examples

Command: TRACE BUFFER WRAP
Response: Trace Is Wrapping

Command name: TRACE BUFFER NOWRAP

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The trace buffer can be in two modes: wrap enabled and wrap disabled. In wrap enabled, the most recent events are recorded discarding older events to record the newer events. The number of events in the trace buffer is equal to the size of the trace buffer.

The command sets the state of the trace buffer to wrap disabled.

Warning

None.

Command syntax

TRACE BUFFER NOWRAP

Parameter Definitions

None.

Responses

There are two responses:

Response 1

Unable to Disable Wrap
No Trace Buffer Allocated
Allocate Trace Buffer First

Explanation:

The trace buffer cannot be set to wrap disabled since a trace buffer has not been allocated.

System action:

None.

User action:

Allocate a trace buffer using the TRACE BUFFER ALLOCATE command.

Response 2

Trace Is NOT Wrapping.

Explanation:

The trace buffer has been set to wrap disabled.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TRACE BUFFER NOWRAP
Response: Trace Is NOT Wrapping

Command name: TRACE BUFFER QUERY

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

Each CI can allocate a trace buffer up to a maximum of 10 CIs. The command displays the number of trace buffers allocated.

Warning

None.

Command syntax

TRACE BUFFER QUERY

Parameter Definitions

None.

Responses

There is one response.

Response 1

There are <n> Trace Buffers Allocated.

Explanation:

<n> The number of trace buffers allocated.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TRACE BUFFER QUERY
Response: There are 1 Trace Buffers Allocated

Command name: TRACE DISPLAY

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command displays the contents of the trace buffer.

Warning

None.

Command syntax

TRACE DISPLAY

Parameter Definitions

None.

Responses

There is one response.

Response 1

Figure 5-8 Response 1

Time Secs	MSecs	Process Id	Route Class	Trans Addr	Activity	Receiver Addr
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>
<xxxx>	<xxxx>	<xxxxxxxx>	<xx>	<xxxxxxxx>	<xxxxxxxxxxxxxxxxxxxxxxx>	<xxxxxxxx>

Explanation:

Time: The time the event occured.

Process Id: The process running when the event occured.

Route Class: The transaction type of the event.

Trans Addr: The address of the transaction.

Activity: A textual description of the event. One of the following:

- ROUTER Register
- ROUTER Register Error
- ROUTER Deregister
- ROUTER Deregister Error
- ROUTER Register Default
- ROUTER Default Error

— ROUTER Retrieve Route
— ROUTER Flush Receiver
— RECEIVER receive
— RECEIVER Purge
— RECEIVER Get/Wait
— RECEIVER Get/No Wait
— RECEIVER Timeout
— RECEIVER Empty
— RECEIVER Rcv Fault
— RECEIVER Return Trans
— RECEIVER Post to Front
— RECEIVER Post
— RECEIVER Bad Trans
— RECEIVER Bad Process
— RECEIVER Remove Trans
— RECEIVER Post MBX
— RECEIVER Post CP MBX
— RECEIVER Callout
— ALLOCATE Switched Rcvr
— ALLOCATE Non-Switched
— ALLOCATE Fast CP Rcvr
— DEALLOCATE Rcvr
— TRANS Route Conf Req
— TRANS Route Req
— TRANS Route Conf
— TRANS Route L-Rply
— TRANS Route
— TRANS Bad PARM
— TRANS Fault
— TRANS Route Not-Found
— TRA Get
— TRA Get Fail
— TRA Get XL
— TRA Get Priority
— TRA Release
— TRA Release Fail
— TRA Purge
— TRA Audit
— TRA Audit Enable
— TRA Audit Disable
— HASH Get Invoke ID
— HASH Set Invoke ID
— HASH Match Invoked ID
— HASH Find Invoke ID
— HASH Release Invoke ID
— HASH Flush Rcvr
— HASH Audit

Receiver: The address of the receiver associated with the event.

System action:

None.

User action:

None.

Notes

Not all events are associated with transactions.

Not all events are associated with receivers.

Examples

Command: TRACE DISPLAY

Command name: TRACE QUERY

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

Command description

The command displays the events enabled for the trace buffer and whether wrapping is enabled or disabled.

Warning

None.

Command syntax

TRACE QUERY

Parameter Definitions

None.

Responses

There are two responses.

Response 1

Trace Is NOT Wrapping.

Explanation:

The trace buffer has been set to wrap disabled.

System action:

None.

User action:

None.

Response 1

Figure 5-9 Response 1

```
Table of Enabled Transaction Events
---------------------------------------------------
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x> <x>
<x> <x> <x> <x> <x>
Buffer Wrap = <x>
```

Explanation:

The output is a list of enabled transaction events with the events enabled marked (Y). The table is indexed by transaction type, starting in the top-left hand corner.

The wrap enabled field is set (Y/N) for wrap enabled/disabled.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TRACE QUERY

Command name: TRACE START

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command starts tracing of events.

Warning

None.

Command syntax

TRACE START

Parameter Definitions

None.

Responses

None.

Notes

None.

Examples

Command: TRACE START

Command name: TRACE STOP

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command stops tracing.

Warning

None.

Command syntax

TRACE STOP

Parameter Definitions

None.

Responses

None.

Notes

None.

Examples

Command: TRACE STOP

Command name: TRACE HELP

From the AI Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command displays help for the trace utility.

Warning

None.

Command syntax

TRACE HELP

Parameter Definitions

None.

Responses

There is one response.

Response 1

Figure 5-10 TRACE HELP

```
Command TRACE : Trace activities within the AI Router
Format:
Parms:      <choice>  {  ENABLE    {  ALL,
                                      SUBSYSTEM  <subsystem>  STRING,
                                      TRANS      <route class> INT },
                         DISABLE   {  ALL,
                                      SUBSYSTEM  <subsystem>  STRING,
                                      TRANS      <route class> INT },
                         BUFFER    {  ALLOCATE  <entries>    {1 TO 2000},
                                      RESET,
                                      WRAP,
                                      NOWRAP,
                                      QUERY },
                         DISPLAY,
                         QUERY,
                         START,
                         STOP,
                         HELP }
```

Explanation:

The command displays the various options within the trace command.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TRACE HELP

Command name: PIPE <parameters> DISPLAY

From the KandyIPC Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command displays a pipe

Warning

Not Applicable

Command syntax

PIPE <Domain><Subdomain><Locality><Port><Direction> DISPLAY

Parameter Definitions

Table 5-89 Parameter Definitions

PARAMETER	Value Range	Definition or CM Value
Domain	0 - 15	Always 8 for CM
Subdomain	0 to 4095	Internal IDT number
Locality	0 to 255	Always 0 for CM
port	0 to 31	0 for reliable pipe, 1 for unreliable
direction	IN or OUT	IN - Inbound or OUT- Outbound.

Responses

There are two responses.

Response 1

```
Pipe at memory location ########
From ##.####.###.## to ##.####.###.##
Destination {has | has not} asserted congestion
Source believes pipe {is | is not} not in congestion
Pipe {is | is not} throwing away packets
Next expected packet:          #
Packets received:              #   |   Packets sent:             #
Packets lost:                  #   |   Out of sequence           #
Timeouts:                      #   |   NAKs:                     #
```

Explanation:

Pipe at memory location: The logical address of the pipe (in hex)

From ##.####.###.## to #.####.###.##: The IPC address for the two ends of the connection.

Destination {has | has not} asserted congestion: whether the remote is in congestion

Source believes pipe {is | is not} not in congestion: whether the local is in congestion

Pipe {is | is not} throwing away packets: whether the pipe is discarding packets.

Next expected packet: sequence number (in hex) of the next expected packet

Packets received: count of received packets

Packets sent: count of sent packets

Packets lost: count of packets discarded

Out of sequence: number of packets received out of sequence.

Timeouts: number of timeouts.

NAKS: Number of negative acknowledgements

System action:

None.

User action:

None.

Response 2

Not a Pipe.

Explanation:

No pipe was found with the specified parameters.

System action:

None.

User action:

Select a valid pipe.

Notes

None.

Examples

Command: pipe 9 9 9 9 in display

Response: Not a Pipe

Command: pipe 8 5 0 0 in display

Response:

```
Pipe at memory location 05672F64
From 04.0005.074.01 to 08.0005.000.00
Destination has not asserted congestion
Source believes pipe is not in congestion
Pipe is not throwing away packets
Next expected packet:          6
Packets received:              6   |   Packets sent:            6
Packets lost:                  0   |   Out of sequence          0
Timeouts:                      0   |   NAKs:                    0
```

Command name: PIPE <parameters>RESET

From the KandyIPC Directory

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command resets a pipe to a closed state

Warning

Not Applicable

Command syntax

PIPE <Domain><Subdomain><Locality><Port><Direction> RESET

Parameter Definitions

Table 5-90 Parameter Definitions

PARAMETER	Value Range	Definition or CM Value
Domain	0 - 15	Always 8 for CM
Subdomain	0 to 4095	Internal IDT number
Locality	0 to 255	Always 0 for CM
port	0 to 31	0 for reliable pipe, 1 for unreliable
direction	IN or OUT	IN - Inbound or OUT- Outbound.

Responses

There are two responses.

Response 1

Not a Pipe

Explanation:

The specified address was not a pipe.

System action:

None.

User action:

Select an appropriate pipe and retry.

Response 2

Done.

Explanation:

The pipe was reset.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: PIPE 8 5 0 0 IN RESET
Response:

Command: PIPE 9 9 9 9 IN RESET
Response: Not a Pipe

Command name: PIPE <parameters> ZEROCNT

From the KandyIPC Directory

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command resets the operational measurement counters

Warning

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

Command syntax

PIPE <Domain><Subdomain><Locality><Port><Direction> ZEROCNT

Parameter Definitions

Table 5-91 Parameter Definitions

PARAMETER	Value Range	Definition or CM Value
Domain	0 - 15	Always 8 for CM
Subdomain	0 to 4095	Internal IDT number
Locality	0 to 255	Always 0 for CM
port	0 to 31	0 for reliable pipe, 1 for unreliable
direction	IN or OUT	IN - Inbound or OUT- Outbound.

Responses

There are two responses.

Response 1

(nothing is printed to the screen)

Explanation:

The command was successful.

System action:

None.

User action:

None.

Response 2

Not a Pipe

Explanation:

The specified address was not a pipe.

System action:

None.

User action:

Select an appropriate pipe and retry.

Notes

None.

Examples

Command: **PIPE 8 1 0 0 in ZEROCNT**
Response: Please confirm (“YES”, “Y”, “NO”, or “N”):
y
Command: **PIPE 4 0 74 10 IN ZEROCNT**
Response: Please confirm (“YES”, “Y”, “NO”, or “N”):
y
Not a pipe.

Command name: SOCKET

From the KandyIPC Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

The command displays the state of a socket.

Warning

Not Applicable

Command syntax

SOCKET <external idt number>

Parameter Definitions

Table 5-92 Parameter Definitions

PARAMETER	VALUE	DEFINITION
external idt number	0 - 255	The external idt number of the socket.

Responses

There are two responses.

Response 1

```
Reliable socket:
  Socket address: XX.XXXX.XXX.XX
  Peer address: XX.XXXX.XXX.XX
  *** Connection is UP.
  Socket (use object) state map:
       1         0
```

```
  5432109876543210
  0000000000000001
Unreliable socket:
  Socket address: XX.XXXX.XXX.XX
  Peer address: XX.XXXX.XXX.XX
  *** Connection is UP.
  Socket (use object) state map:
       1         0
  5432109876543210
  0000000000000001
```

Explanation:

The status of the reliable and unreliable sockets for a given IDT.

This includes:

Socket address- the Kandy address of the socket associated with this IDT.

Peer Address - the address of the socket in the CM that is connected to the socket associated with this IDT.

Connection is UP/DOWN: Tells whether the connection between the CM and the SMA sockets is up or down.

Socket (use object) state map: A bitmap of the internal state of the socket.

System action:

None.

User action:

None.

Response 2

```
IDT 111 is not equipped.
```

Explanation:

The idt is not equipped.

System action:

None.

User action:

Choose a idt that is equipped, and re-execute the command.

Notes

None.

Examples

Command: socket 9

Response:

```
Reliable socket:
  Socket address: 08.0005.000.00
  Peer address: 04.0005.074.01
  *** Connection is UP.
  Socket (use object) state map:
       1         0
  5432109876543210
  0000000000000001
Unreliable socket:
  Socket address: 08.0005.000.01
  Peer address: 04.0005.074.02
  *** Connection is UP.
  Socket (use object) state map:
       1         0
  5432109876543210
  0000000000000001
```

Command: socket 111

Response:

```
IDT 111 is not equipped.
```

Command: socket 101

Response:

```
Reliable socket:
  No socket connected.
  *** Connection is DOWN.
Unreliable socket:
  No socket connected.
  *** Connection is DOWN.
```

Command name: TIMERS

From the KandyIPC Directory.

Command type

Non-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command configures or displays pipe and socket timeout values.

Warning

Not Applicable

Command syntax

TIMER <timer type> <timer value>

Parameter Definitions

<timer type> - the type of timer you wish to configure or display. {**PIPE** | **RSOCK** | **USOCK** | **DISPLAY**}, where RSOCK = reliable socket and USOCK = unreliable socket.

<timer value>- the number of seconds you wish to set the timer for. The valid values are 0 to 255 seconds.

Responses

There is one response.

Response

Message roundtrip timeout values:
Pipe: <##> s
Reliable socket connection manager: <##> s
Unreliable socket connection manager: <##> s

Explanation:

Message roundrip timeout values: the number of seconds before the pipe, unreliable socket connection manager, and reliable socket connection manager times out.

System action:

None.

User action:

None.

Notes

None.

Examples

Command: TIMERS DISPLAY

Response: Message roundtrip timeout values:

Pipe:	3 s
Reliable socket connection manager:	15 s
Unreliable socket connection manager:	5 s

Command: TIMERS USOCK 10

Response: Message roundtrip timeout values:

Pipe:	3 s
Reliable socket connection manager:	15 s
Unreliable socket connection manager:	10 s

Command: TIMERS RSOCK 30

Response: Message roundtrip timeout values:

Pipe:	3 s
Reliable socket connection manager:	30 s
Unreliable socket connection manager:	10 s

Command: TIMERS PIPE 13

Response: Message roundtrip timeout values:

Pipe:	13 s
Reliable socket connection manager:	30 s
Unreliable socket connection manager:	10 s

Alarms

None.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1719mm.aa08

This activity is described by activity AN1716.

Directories

Table of New/Modified Directories

Table 5-93 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Table of New/Modified Commands

Table 5-94 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

Command name:

Command type

Command target

Command availability

Command description

Warning

Command syntax

Parameter Definitions

Table 5-95 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

Explanation:

System action:

User action:

Notes

Examples

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1721mm.aa16

Directories

None.

Table of New/Modified Directories

Table 5-96 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

ADD or CHANGE command in table RDTINV

ADD or CHANGE command in table LNINV

Table of New/Modified Commands

Table 5-97 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ADD or CHANGE in table RDTINV	changed		table
ADD or CHANGE in table LNINV	changed		table

Command name:

NA (see section “ Responses”)

Command type

Command target

Command availability

Command description

Warning

Command syntax

Parameter Definitions

Table 5-98 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

In table RDTINV, when the ADD or CHANGE command is used to provision an IRTU in field MTSTACPT the following message will no longer be displayed:

‘RDT does not have the feature to support ILC’

In table LNINV, when the ADD or CHANGE command is used to provision a card type of RDTILC, the following message will no longer be displayed.

‘Error: RDT load x does not support test head user y.’
where:
x = AN07 or Pre_AN07
y = NTTIF or BOTH or MAPIF

Explanation:

These messages have been deleted because they are no longer a backwards compatibliy issue.

System action:

User action:

Notes

Examples

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1722mm.aa18

Directories

None

Table of New/Modified Directories

N/A

Accessing directory:

To access

To return to CI

Commands

TSTRING

LTA

SUSTATE

Table of New/Modified Commands

Table 5-99 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TSTRING	CHANGED		LTPMAN
LTA	CHANGED		LTPLTA
SUSTATE	CHANGED		LTPMAN / LTPISDN / LTPDATA

Command name: TSTRING

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The TSTRING command tests the ringing voltage at the TIP and RING of the line in the control position. This command requires split-in metallic access which is not supported for TR-303 lines in DMS releases prior to NA006. In the NA005 and previous DMS releases, the following message is given when the TSTRING command is attempted on a TR-303 line:

"TSTRING operation not valid on TR303 RDT lines"

Split-in metallic access is supported for TR-303 lines in NA006 when the line is accessed through an MTAU with a split access capability of nonsimFullSplit. In the NA006 release, the behavior of the TSTRING command for TR-303 lines depends on the split access capability of the MTAU used to access the line in the control position.

Table 5-100, "TR-303 TSTRING Support in NA006," on page 268 contains detailed information on the behavior of the TSTRING command for TR-303 lines in NA006. This table lists the split access capabilities defined in TR-TSY-000303 and the TSTRING behavior that is supported for each split access capability.

Table 5-100 TR-303 TSTRING Support in NA006

Split Access Capability of MTAU	Supported TSTRING Behavior
simFullSplit	When the TSTRING command is attempted on a TR-303 line that has been accessed through an MTAU with a split access capability of simFullSplit, the following message is given: "TSTRING requires split-in metallic access" "which is not supported by this RDT."
nonsimFullSplit	When the TSTRING command is attempted on a TR-303 line that has been accessed through an MTAU with a split access capability of nonsimFullSplit, the TSTRING command is performed.
splitOutOnly	When the TSTRING command is attempted on a TR-303 line that has been accessed through an MTAU with a split access capability of splitOutOnly, the following message is given: "TSTRING requires split-in metallic access" "which is not supported by this RDT."

Warning

None

Command syntax

No changes.

Parameter Definitions

N/A

Responses

The existing TSTRING response for TR-303 lines is removed. A new response is added to indicate the TSTRING command is not supported for a TR-303 line when the line can not be accessed in a split-in configuration.

Response

“TSTRING requires split-in metallic access”
“which is not supported by this RDT.”

Explanation:

This indicates that the RDT does not support the split-in metallic configuration, and therefore the TSTRING command is not valid for the RDT.

System action:

None

User action:

None

Notes

None

Examples

None

Command name: LTA

Command type

MENU

Command target

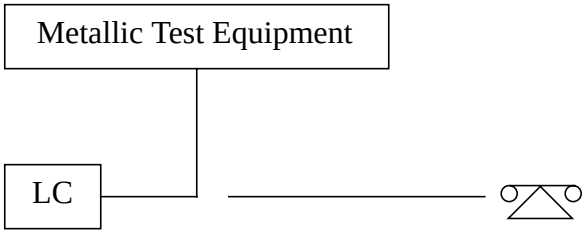
SUPERNODE

Command availability

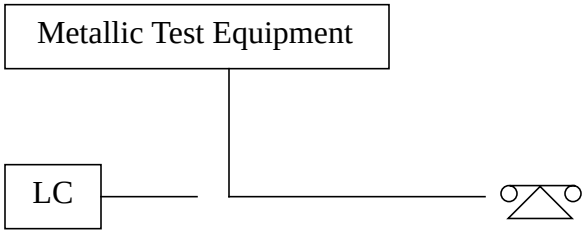
RES

Command description

The LTA command is used to change the metallic configuration of the line in the control position. It has one optional parameter which indicates the desired configuration (IN, OUT, RLS). When no parameter is given with the LTA command, it toggles the metallic configuration for the line in the control position between the test-in and test-out configuration.



Test In : Split-In Metallic Access for RDT lines



Test Out : Split-Out Metallic Access for RDT lines

Full support of the LTA command for RDT lines requires split-in metallic access which is not supported for TR-303 lines in the DMS releases prior to NA006. In the NA005 and previous DMS releases, the following message is given when the LTA command attempts to change the metallic configuration of a TR-303 line to split-in.

"LTA IN command is not valid on this RDT"

Split-in metallic access is supported for TR-303 lines in NA006 when the line is accessed through an MTAU with a split access capability of nonsimFullSplit. The behavior of the LTA command is enhanced in the NA006 release to take advantage of the split-in support for TR-303 lines.

Only the portions of the LTA command that attempt to change the metallic configuration to test-in are affected by this activity. The LTA command is not affected when the OUT or RLS parameter is used.

The behavior of the LTA command when attempting to change the metallic configuration of a TR-303 line to test-in depends on the split access capabilities supported by the RDT. Table 5-101, "TR-303 LTA (IN) Support in NA006," on page 271 contains detailed information on the behavior of the LTA command for TR-303 lines in NA006. This table lists the split access capabilities defined in TR-TSY-000303 and the LTA (IN) behavior that is supported for each split access capability. Note, the unaffected portions of the LTA command are not included in Table 5-101, "TR-303 LTA (IN) Support in NA006," on page 271

Table 5-101 TR-303 LTA (IN) Support in NA006

Split Access Capability	Supported LTA (IN) Behavior
simFullSplit	When the LTA IN command, or LTA toggle to test-in, is attempted on a TR-303 line that has been accessed through an MTAU with a split access capability of simFullSplit, the following message is given: "LTA IN requires split-in metallic access" "which is not supported by this RDT."
nonsimFullSplit	When the LTA IN command, or LTA toggle to test-in, is attempted on a TR-303 line that has been accessed through an MTAU with a split access capability of nonsimFullSplit, the LTA command is performed.
splitOutOnly	When the LTA IN command, or LTA toggle to test-in, is attempted on a TR-303 line that has been accessed through an MTAU with a split access capability of splitOutOnly, the following message is given: "LTA IN requires split-in metallic access" "which is not supported by this RDT."

Warning

None

Command syntax

No changes.

Parameter Definitions

N/A

Responses

The existing LTA IN response for TR-303 lines is replaced with a new LTA IN response.

Response

LTA IN response being removed:

"LTA IN command is not valid on this RDT"

LTA IN response being added:

"LTA IN requires split-in metallic access"
"which is not supported by this RDT."

Explanation:

The new LTA IN response indicates the line in the control position can not be accessed in a test-in configuration due to the metallic test capabilities of the RDT.

System action:

None

User action:

None.

Notes

None

Examples

None

Command name: SUSTATE

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The SUSTATE command displays the state of the linecard and subscriber equipment that corresponds to the line in the control position. Two changes are made to the information displayed by the SUSTATE command for RDT ISDN lines.

The linecard information displayed for RDT ISDN lines appears as follows in DMS releases prior to NA006:

CO	TA	LC_Lpbk	◄— displayed heading
CutOff Relay Status	*Test Access Status*	*Loopback Status*	◄— information displayed under heading

In releases prior to NA006, the CO field and TA field are not supported and are always marked with a dash.

In the NA006 release, the linecard information displayed for RDT ISDN lines appears as follows:

TA	LC_Lpbk	◄— displayed heading
Test Access Status	*Loopback Status*	◄— information displayed under heading

The CO field is removed because RDT lines do not support a CutOff relay.

The information displayed under the TA heading corresponds to the metallic test configuration of the line in the control position. The metallic configurations that are supported for RDT lines and the corresponding TA displays are shown in Table 5-102, “Test Access Information for RDT lines,” on page 274

Table 5-102 Test Access Information for RDT lines

Metallic Configuration	TA Display
No metallic access	dash (-)
Split-Full	FULL
Split-In	IN
Split-Out	OUT
Bridged	BRDG
Monitor	MNTR
Ready	RDY

Warning

None

Command syntax

No changes.

Parameter Definitions

N/A

Responses

The information displayed by the SUSTATE command for RDT ISDN lines is modified. The CO field is removed and the TA information is provided.

Response

The linecard information for RDT ISDN lines will appear as follows:

TA	LC_Lpbk	← displayed heading
Test Access Status	*Loopback Status*	← information displayed under heading

The Test Access information that can be displayed is shown in Table 5-102, “Test Access Information for RDT lines,” on page 274

Explanation:

The SUSTATE display is enhanced to match the data available for RDT ISDN lines.

System action:

None

User action:

None

Notes

None

Examples

None

Alarms

Alarm name:

N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AN1724mm.aa10

This feature adds a new message tobe displayed at the LTP level of the DMS MAP. For a complete functionality and man-machine interface description please refer to featrure AF5960, RDT Line Status Display.

Directories

LN_LTP_DIR

Table of New/Modified Directories

Table 5-103 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
LTP	Changed	N/A	S/DMS	RES

Accessing directory:

LN_LTP_DIR

To access

MAPCI;MTC;LNS;LTP

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-104 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
POST	Changed	N/A	LTP

Command name:

Post

Command type

Menu

Command target

SuperNode

Command availability

RES

Command description

This feature adds a new message to be displayed at the LTP MAP when an RDT line is posted on the DMS MAP.

Warning

Not applicable

Command syntax

Unchanged

(Example: POST L <LEN>)

Parameter Definitions

Table 5-105 Parameter Definitions

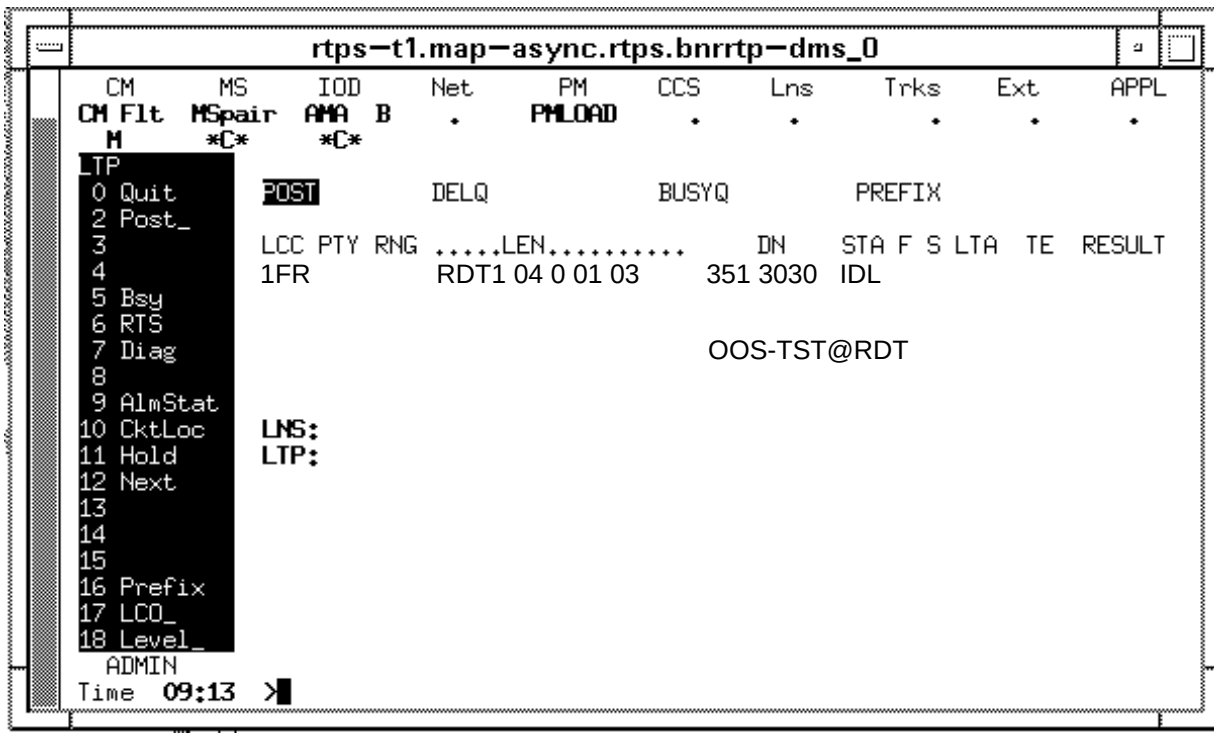
PARAMETER	VALUE	DEFINITION
Unchanged		

Responses

Whenever a line is posted at the LTP level, which is undergoing testing at the RDT, *OOS-TST@RDT* (Out-of-service test at RDT) is displayed in the remote line status field.

Response

The LTP level of the MAP at the time of performing testing at the RDT from the DMS looks as follows:



Explanation:

The remote line status field displays *OOS-TST@RDT* at the time of running a test, informing the craftsperson of the state of the line termination object at the RDT.

System action:

After completion of the test, the line status display application replaces *OOS-TST@RDT* message with the current state of the line termination object at the RDT.

User action:

None

Notes

None

Examples

POST L <LEN>

POST DN <DN>

Alarms

Not Applicable.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1726mm.aa12

Directories

Table of New/Modified Directories

Table 5-106 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
RDTLNAUD	NEW		SUPERNODE	RES

Accessing directory:

To access

RDTLNAUD

To return to CI

QUIT

Commands

- HELP
- STARTRDT <RDT Name>
- STARTLEN {<start LEN[1]> <stop LEN>}
- STOP <RDT Name>
- QUERY
- HISTORY <RDT Name>

[1]Line Equipment Number.

Table of New/Modified Commands

Table 5-107 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
HELP	NEW		RDTLNAUD
STARTLEN	NEW		RDTLNAUD
STARTRDT	NEW		RDTLNAUD
STOP	NEW		RDTLNAUD
QUERY	NEW		RDTLNAUD
HISTORY	NEW		RDTLNAUD

Command name: HELP

Command type

CI

Command target

SUPERNODE

Command availability

RES

Command description

The HELP command in RDTLNAUD directory is used to display the commands in this directory.

Warning

None

Command syntax

HELP

Parameter Definitions

Table 5-108 Parameter Definitions

PARAMETER	VALUE	DEFINITION
None		

Responses

The following is displayed:

```
RDT Manual Audit Command Interface (RDTLNACI)
Commands:

  HELP     - Display this summary
  STARTLEN - Start the audit for the specified LEN range
  STARTRDT - Start the audit for the specified RDT
  STOP     - Stop the audit for the specified IDT
  QUERY    - Query the status of the RDT line audit
  HISTORY  - Display the audit history for this IDT
  QUIT     - To return to CI
```

Command name: STARTRDT

Command type

CI

Command target

SUPERNODE

Command availability

RES

Command description

The STARTRDT command in RDTLNAUD directory is used to start manual RDT line audit for a specified RDT.

Warning

None

Command syntax

STARTRDT {<RDT Name>}

Parameter Definitions

Table 5-109 Parameter Definitions

PARAMETER	VALUE	DEFINITION
RDT Name	RDT Name	The name of the RDT to be audited.

Responses

This command starts manual audit for the RDT, specified by the parameter <RDT Name>. This command starts audit for all line termination objects for TR303 and FWP AN RDT's, and RDTLINKs[1] for FWP AN RDT's. The following message is displayed if the command is executed successfuly:

- "The manual audit is started."

If the audit can not be started an error response is displayed depending on the error type. The error messages are:

- "Only three manual audits permitted."
- "Invalid RDT Name"
- "Unequipped Frame or Bay."
- "Invalid site name for the RDT"
- "No LENs provisioned for this RDT"
- "Communication is not established to this RDT."
- "This RDT is not equipped"
- "The audit is already in progress for this RDT"

Command name: STARTLEN

Command type

CI

Command target

SUPERNODE

Command availability

RES

[1] RDTLINKs (auto create objects) are only audited for RDTs using the FWP (FiberWorld Products) object model.

Command description

The STARTLEN command in RDTLNAUD directory is used to start manual RDT line audit for a specified LEN range.

Warning

None

Command syntax

STARTLEN {<start LEN[1]> <stop LEN>}

Parameter Definitions

Table 5-110 Parameter Definitions

PARAMETER	VALUE	DEFINITION
startLEN	LEN	Start the manual audit from specified start LEN.
stopLEN	LEN	Stop the manual audit at specified stop LEN.

Responses

This command starts manual audit for all line termination objects from the specified <start LEN> to <stop LEN>. Both LEN's should be on the same RDT, the start LEN should precede the stop LEN. Note that if both LEN's are the same, only one line specified by the LEN is audited. The following message is displayed if the command is executed successfuly:

- "The manual audit is started."

If the audit can not be started an error response is displayed depending on the error type. The error messages are:

- "Only three manual audits permitted."
- "Invalid LEN"
- "The line must be an RDT line for the START command"
- "The start LEN must precede the stop LEN"
- "The start LEN and the stop LEN must be on the same RDT"
- "No LENs provisioned for this RDT in specified LEN range"
- "Communication is not established to this RDT"

[1]Line Equipment Number.

- "This RDT is not equipped"
- "Unequipped Frame or Bay."
- "Invalid site name for the RDT"
- "The audit is already in progress for this RDT"

Command name: STOP

Command type

CI

Command target

SUPERNODE

Command availability

RES

Command description

The STOP command in RDTLNAUD directory is used to stop all manual RDT line audit running on an RDT.

Warning

None

Command syntax

STOP <RDT Name>

Parameter Definitions

Table 5-111 Parameter Definitions

PARAMETER	VALUE	DEFINITION
RDT Name	RDT Name	The RDT Name of the RDT being audited.

Responses

This command stops the manual audits in progress for a given RDT. The following message is displayed if the stop command is successful:

- "The manual audit for <RDT_name> have been stopped"

If the audit can not be stopped an error response is displayed depending on the error type. The possible error messages are:

- “RDT is not being audited.”
- “Invalid RDT Name.”
- "Unequipped Frame or Bay."
- "Invalid site name for the RDT"
- “Only manual audits can be stopped”

Command name: QUERY

Command type

CI

Command target

SUPERNODE

Command availability

RES

Command description

The QUERY command in RDTLNAUD directory is used to query the status of the manual and system RDT line audit processes.

Warning

None

Command syntax

QUERY

Parameter Definitions

Table 5-112 Parameter Definitions

PARAMETER	VALUE	DEFINITION
None.		

Responses

This command displays the status of RDT's being audited. There can be up to seven RDT's audited by the system, and up to 3 RDT's manually being audited. The table can contain 0 to 10 entries at any given time. If the query is successful the following table of information is displayed:

Type[1]	RDT Name	Status[2]
System1	<RDT Name>	{LEN:<LEN>}{RDTLINK:<RDTLINK>}
.	.	.
.	.	.
System7	.	.
Man1	.	.
.	.	.
Man3	.	.

Command name: HISTORY

Command type

CI

Command target

SUPERNODE

Command availability

RES

[1]Manual or System audit.
[2]The current LEN or the RDTLINK being audited.

Command description

The HISTORY command in RDTLNAUD directory is used to display the time of the last audit that has been run on the given RDT and the status. The status indicates whether the audit was completed successfully, or it is in progress, or awaiting to be audited, or not completed (IDT suspended) due to an error condition.

Warning

None

Command syntax

HISTORY <RDT Name >

Parameter Definitions

Table 5-113 Parameter Definitions

PARAMETER	VALUE	DEFINITION
RDT Name	RDT Name	The RDT Name of the RDT being audited.

Responses

The following table of information is displayed if the command is successful:

Last Audit:[1] MM/DD/YY HH:MM:SS.MS

Status: {nil[2]}{awaiting[3]}{suspended[4]}{inprogress[5]}{done[6]}

Possible error messages are:

- “Invalid RDT Name”
- "Unequipped Frame or Bay."
- "Invalid site name for the RDT"

[1]The start time of the last audit for this RDT.
[2]The audit has never been started for this RDT.
[3]The audit can be started for this RDT.
[4]The communication is down to this RDT, the audit is suspended for this RDT.
[5]The audit is in progress for this RDT.
[6]The audit has been successfuly completed for this RDT.

Alarms

Alarm name:

N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AN1728mm.aa11

Directories

Table of New/Modified Directories

Table 5-114 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
EOCTST	DELETED		S-NODE	NONRES
EOCDBCI	NEW		S-NODE	RES
VTNTST	NEW		S-NODE	NONRES

Accessing directory: EOCDBCI

To access

```
EOCDBCI
```

To return to CI

```
QUIT
```

Accessing directory: VTNTST

To access

```
VTNTST
```

To return to CI

```
QUIT
```

Commands

Table of New/Modified Commands

Table 5-115 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
EOCDB	DELETED		EOCTST
FILL	DELETED		EOCTST
CORRUPT	DELETED		EOCTST
LODOK	DELETED		EOCTST
DBQUERY	NEW		EOCDBCI
DBSYNC	NEW		EOCDBCI
MODE	NEW		VTNTST
TESTSYNC	NEW		VTNTST
ERRORS	NEW		VTNTST

Command name: DBQUERY

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command description

This command prints the status of the VTn path termination database for a given IDT, or a summary of the database statuses for all datafilled IDTs. The VTn path termination database maps RDT logical port numbers to VTn path termination IDs; this information is essential for RDT ISDN line provisioning on an S/DMS AccessNode. If the database is not synchronized for a given IDT, line provisioning may not complete successfully for lines on the corresponding RDT.

Warning

None

Command syntax

```
DBQUERY <External IDT Number or ALL> {0 TO 255,
                                      ALL}}
```

Parameter Definitions

Table 5-116 Parameter Definitions

PARAMETER	VALUE	DEFINITION
External IDT Number or ALL	0 to 255, or ALL	The external IDT number that is to be queried, or “all” for a summary of all datafilled IDTs

Responses

Response

```
IDT <External IDT Number> is not equipped.
```

Explanation:

The database could not be queried for the specified IDT because the IDT does not exist in table RDTINV.

System action:

None.

User action:

None.

Response

```
EOC Database Information for IDT <External IDT Number>
-----------------------------------
  Database status:           Synchronization not required
  Internal database index:   <index>
```

Explanation:

The EOC database is only required for IDTs that use “FiberWorld proprietary” messaging to an S/DMS AccessNode. A generic TR-303 RDT, or an S/DMS AccessNode that uses “SuperSet Object Model” messaging (refer to feature AF6228), does not require the EOC database.

- “Internal database index” is the internal database entry number for this IDT. This is an integer with values ranging from 0 to 255.

System action:

None.

User action:

None.

Response

```
EOC Database Information for IDT <External IDT Number>
-----------------------------------
  Database status:           Not synchronized
  Internal database index:   <index>
  Database sync task status: Synchronization not yet started
  Database last updated:     <Date/Time>
```

Explanation:

The system has not yet started synchronization of the database for this IDT; generally this is due to the fact that the maintenance connection to the RDT has not been established.

- “Internal database index” is the internal database entry number for this IDT. This is an integer with values ranging from 0 to 255.
- “Database last updated” indicates the time and date at which the database sync task last wrote to this database entry.

System action:

The system will begin database synchronization once conditions are valid (i.e. when the maintenance connection has been established, and resources are available for synchronization.)

User action:

If:

- the database sync task remains in the “Synchronization not yet started” state for longer than twenty minutes, *and*
- the IDT is otherwise in-service with the maintenance connection established, *and*
- synchronization is not in progress for any other IDTs in the system,

contact the next level of support.

Response

```
EOC Database Information for IDT <External IDT Number>
-----------------------------------
  Database status:           Not synchronized
  Internal database index:   <index>
  Database sync task status: Synchronization in progress
  Database last updated:     <Date/Time>
```

Explanation:

The database entry is present, but is not fully synchronized with the RDT.

- “Internal database index” is the internal database entry number for this IDT. This is an integer with values ranging from 0 to 255.
- “Database last updated” indicates the time and date at which the database sync task last wrote to this database entry.

System action:

The system will continue synchronizing the database until it has completed, or until an error is encountered.

User action:

If the database sync task remains in the “Synchronization in progress” state for longer than twenty minutes without any apparent system activity, the user should contact the next level of support.

Response

```
EOC Database Information for IDT <External IDT Number>
-----------------------------------
  Database status:           Not synchronized
  Internal database index:   <index>
  Database sync task status: Synchronization aborted
  Database last updated:     <Date/Time>
  Abort reason:              <reason>
  Abort error code:          <code>
```

Explanation:

The database is present, but the last attempt to synchronize the database was abnormally terminated.

- "Internal database index" is the internal database entry number for this IDT. This is an integer with values ranging from 0 to 255.
- "Database last updated" indicates the time and date at which the database sync task last wrote to this database entry.
- "Abort reason" indicates the reason the software aborted database synchronization; possible values are:
  - — "No reason recorded" - The software was unable to determine the cause of synchronization failure.
  - — "Messaging timeout occurred" - The RDT failed to respond to the synchronization request messages.
  - — "Unexpected error response from the RDT" - The database synchronization software detected an error message from the RDT for which no automatic recovery is possible.
  - — "The IDT was deleted from RDTINV" - This may appear transiently if the database is queried as the IDT is being deleted from table RDTINV.
  - — "System or user action" - The system is about to restart synchronization, or a non-resident tool was used to abort synchronization.
  - — "Messaging to the RDT was blocked" - The database synchronization process detected a maintenance connection failure or a flow control condition to the RDT.
  - — "Software error; check SWERR logs" - An internal software error occurred.
- "Abort error code" is shown if the abort reason is "Unexpected error response from the RDT"; it is an integer representing the error code.

System action:

The system will automatically attempt to synchronize the database periodically if the IDT is datafilled and the maintenance connection to the RDT is established.

User action:

The user may manually trigger database synchronization using the DBSYNC command. If repeated attempts to synchronize the database fail, the user should note the response from the DBQUERY command and contact the next level of support.

Response

```
EOC Database Information for IDT <External IDT Number>
-----------------------------------
  Database status:           Not synchronized
  Internal database index:   <index>
  Database sync task status: Synchronization process idle
  Database last updated:     <Date/Time>

  Information for the following links has been retrieved
  from the RDT:
  [(<RDT link> <XPM link>) <VTn ID>] ...

  The following links in RDTINV do not exist at the RDT:
  (<RDT link> <XPM link>) ...
```

Explanation:

The database was partially synchronized, but a mismatch was detected between the link configuration in table RDTINV and the facility assignments at the S/DMS AccessNode.

- "Internal database index" is the internal database entry number for this IDT. This is an integer with values ranging from 0 to 255.
- "Database last updated" indicates the time and date at which the database sync task last wrote to this database entry.
- A list of links for which synchronization was successful is presented. Each entry in the list contains:
  - — RDT link - The RDT C-Side link number, also known as the RDT logical port number, for the link.
  - — XPM link - The XPM P-Side link number for the link.
  - — VTn ID - The VTn path termination ID for the link, as retrieved from the S/DMS AccessNode.
- A list of links for which synchronization failed is presented. Each entry in the list contains:

— RDT link - The RDT C-Side link number, also known as the RDT logical port number, for the link.

— XPM link - The XPM P-Side link number for the link.

System action:

The system will periodically attempt to resynchronize the database; however, it is likely that synchronization will continue to fail if manual intervention is not performed.

User action:

The user should compare the link assignments in the LINKTAB field of RDTINV against the facility assignments at the S/DMS AccessNode.

Response

```
EOC Database Information for IDT <External IDT Number>
-----------------------------------
  Database status:           Synchronized
  Internal database index:   <index>
  Database sync task status: Synchronization process idle
  Database last updated:     <Date/Time>

  Information for the following links has been retrieved
  from the RDT:
  [(<RDT link> <XPM link>) <VTn ID>] ...
```

Explanation:

The database was successfully synchronized with data at the S/DMS AccessNode.

- "Internal database index" is the internal database entry number for this IDT. This is an integer with values ranging from 0 to 255.
- "Database last updated" indicates the time and date at which the database sync task last wrote to this database entry.
- A list of links for which synchronization was successful is presented. Each entry in the list contains:
  — RDT link - The RDT C-Side link number, also known as the RDT logical port number, for the link.
  — XPM link - The XPM P-Side link number for the link.
  — VTn ID - The VTn path termination ID for the link, as retrieved from the S/DMS AccessNode.

System action:

None.

User action:

None.

Response

```
EOC Database Information Summary
--------------------------------

Idx  IDT  DB Status  Task Status
---  ---  ---------  -----------
...
```

Explanation:

This response is generated when the “ALL” option is used with the DBQUERY command. A list is presented containing a brief summary of the database statuses for each datafilled IDT.

- “Idx” is the internal database entry number for the IDT. This is an integer with values ranging from 0 to 255, and corresponds to the “Internal database index” field in the long-form response.
- “IDT” is the external IDT number for the IDT.
- “DB Status” indicates whether the database is synchronized or not synchronized; it corresponds to the “Database status” field in the long-form response. If the field contains “N/A”, it indicates that the EOC database is not used for the IDT.
- “Task Status” indicates the current status of the database synchronization task; it corresponds to the “Database sync task status” field in the long-form response. If the field contains “N/A”, it indicates that the EOC database is not used for the IDT.

System action:

None.

User action:

Use DBQUERY with an individual IDT for more details on the database status.

Command name: DBSYNC

Command type

Non-menu

Command target

SuperNode

Command availability

Res

Command description

This command forces the VTn path termination database to be re-synchronized against data in the S/DMS AccessNode. Re-synchronization is automatically performed by system software (*without* use of this command) if the link configuration in table RDTINV is changed; however, if facility assignments change at the S/DMS AccessNode and a database mismatch is created, re-synchronization is *not* automatically triggered, until an audit detects the mismatch (refer to feature AN1726 for a description of the audit). **Therefore, it is recommended that this command be invoked whenever facility assignments are changed at the S/DMS AccessNode.**

Warning

- If this command is *not* performed following a facility assignment change at the S/DMS AccessNode, it is possible that RDT ISDN line provisioning will fail or cause line data mismatches between the DMS-100 and the S/DMS AccessNode. This could result in call processing failures which remain unresolved until the RDT Line Provisioning Audit executes (refer to feature AN1726).
- When this command is invoked, foreground processing of RDT line provisioning requests may be temporarily disallowed. RDT line provisioning requests will be submitted for background processing until the database is re-synchronized. If the system fails to re-synchronize the database, RDT line provisioning requests will not be processed, resulting in possible service order processing and call processing failures.

Command syntax

```
DBSYNC <External IDT Number> {0 TO 255}
```

Parameter Definitions

Table 5-117 Parameter Definitions

PARAMETER	VALUE	DEFINITION
External IDT Number	0 to 255	The external IDT number for which the database is to be resynchronized

Responses

Response

```
IDT <External IDT Number> is not equipped.
```

Explanation:

The database could not be synchronized for the specified IDT because the IDT does not exist in table RDTINV.

System action:

None.

User action:

None.

Response

```
Request submitted.
```

Explanation:

A request was submitted to the database synchronization task to re-synchronize the database for this IDT.

System action:

None.

User action:

Use the DBQUERY command to check the progress of the re-synchronization attempt.

Command name: MODE

Command type

Non-menu

Command target

SuperNode

Command availability

Non-Res

Command description

This command alters the execution of the VTn path termination database synchronization process. Two parameters may be altered:

- The user may select to operate the process in “loopback” mode, where synchronization messages are sent to a local test responder instead of to the RDT.
- The user may select to trigger the synchronization process manually (using the TESTSYNC command) rather than having the process triggered automatically upon maintenance connection setup.

This command should only be available in a lab environment.

Warning

While the test responder tool is set to generate VTn path termination IDs in a similar manner to most S/DMS AccessNodes, it is not guaranteed to generate the correct IDs in every instance. Since ISDN line provisioning for S/DMS AccessNodes is dependent on this information, **use of loopback mode may cause failures if attempts are made to provision actual ISDN lines on an RDT**. This tool should only be used for testing the functionality of the database synchronization process.

Command syntax

```
MODE <Loop mode> {NORMAL <Trigger mode> {AUTO,
                                         MANUAL},
                 LOOP <Trigger mode> {AUTO,
                                      MANUAL},
                 QUERY}
```

Parameter Definitions

Table 5-118 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Loop mode	NORMAL	Turns off loopback mode so that normal messaging to the RDT is performed.
	LOOP	Turns on loopback mode so that messages are sent to a local test responder tool instead of to the RDT.
	QUERY	Queries the current mode.
Trigger mode	AUTO	Synchronization is triggered automatically as needed when the maintenance connection is established.
	MANUAL	Synchronization must be triggered using the TESTSYNC command.

Responses

Response

```
Loop mode <enabled | disabled>.
Sync process < requires manual triggering |
               automatically triggered >.
```

Explanation:

The response from the command indicates whether loopback test mode is enabled or disabled, and whether the database synchronization process must be manually triggered (using the TESTSYNC command) or whether it is automatically triggered when the maintenance connection is established.

System action:

None.

User action:

None.

Command name: TESTSYNC

Command type

Non-menu

Command target

SuperNode

Command availability

Non-Res

Command description

This command triggers VTn path termination database synchronization when "manual" trigger mode is enabled (refer to the MODE command description). Synchronization is triggered regardless of the state of the maintenance connection; note, however, if loopback mode is not enabled, synchronization will be aborted if the maintenance connection is down, since synchronization request messages cannot be transmitted to the RDT.

Warning

None.

Command syntax

```
TESTSYNC <External IDT Number> {0 TO 255},
         [<Mode> {UP,
                  DOWN}]
```

Parameter Definitions

Table 5-119 Parameter Definitions

PARAMETER	VALUE	DEFINITION
External IDT Number	0 to 255	The external IDT number for which the database synchronization is to be triggered
Mode	UP (default)	Used when database synchronization is to be started
	DOWN	Used when database synchronization is to be aborted

Responses

Response

```
IDT <External IDT Number> is not equipped.
```

Explanation:

The database could not be synchronized for the specified IDT because the IDT does not exist in table RDTINV.

System action:

None.

User action:

None.

Response

```
Request invalid when manual trigger mode is not enabled.
```

Explanation:

The TESTSYNC command could not be used because database synchronization is automatically triggered when the maintenance connection is established. Use the MODE command to switch to manual synchronization triggering.

System action:

None.

User action:

None.

Response

```
Request submitted.
```

Explanation:

A request was submitted to the database synchronization task to re-synchronize the database for this IDT, or to abort synchronization of the database for this IDT.

System action:

None.

User action:

Use the DBQUERY command to check the progress of the re-synchronization attempt.

Command name: ERRORS

Command type

Non-menu

Command target

SuperNode

Command availability

Non-Res

Command description

This command allows the user to force errors to be returned to the VTn path termination database synchronization request messages, when loopback mode is enabled. This may be used to test the error recovery mechanisms in the database synchronization task.

A list of pending responses is created by using the ADD option of this command. Each request message that arrives at the loopback test responder generates a response that corresponds to the next element in the response list. The element is then removed from the list. If the response list is empty, success responses are returned by default for subsequent request messages.

Warning

None.

Command syntax

```
ERRORS <Operation> {ADD <Type> {SUCCESS,
                                TIMEOUT,
                                PARTTMO,
                                PARTERR,
                                NOLINK,
                                MSGERR},
                   CLEAR,
                   QUERY}
```

Parameter Definitions

Table 5-120 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Operation	ADD	The specified response TYPE is to be added to the list of pending responses.
	CLEAR	The list of pending responses is to be cleared; success responses will be returned to subsequent request messages.
	QUERY	Print the list of pending responses.
Type	SUCCESS	Causes a successful response to be returned for a request message.
	TIMEOUT	Causes no response to be returned for a request message.
	PARTTMO	Causes a partial response to be returned for a request message, with no response after it.
	PARTERR	Causes a partial response to be returned for a request message, with an error response after it.
	NOLINK	Causes an empty response (indicating that the requested link does not exist) to be returned for a request message.
	MSGERR	Causes an unexpected error response to be returned for a request message.

Responses

Response

```
Ok.
```

Explanation:

The requested operation was processed successfully.

System action:

None.

User action:

None.

Response

```
Error: List is full.
```

Explanation:

The ADD operation could not be processed because the list of pending responses is full.

System action:

None.

User action:

Generate request messages so that pending responses are sent and removed from the list, or CLEAR the list.

Response

```
No errors scheduled; success responses will be returned.
```

Explanation:

This response to the QUERY operation indicates that the list of pending responses is empty. Subsequent request messages will cause the generate of successful responses.

System action:

None.

User action:

None.

Response

```
Scheduled responses:
--------------------
<Timeout (No Response)>
<No Link (Empty Response)>
<Partial (Response + Timeout)>
<Partial (Response + Error)>
<Error   (Error Response)>
```

```
<Ok      (Success Response)>
```

Explanation:

This response to the QUERY operation shows the contents of the list of pending responses, in order of when they will be returned.

- Timeout - No response will be returned.
- No Link - An empty response will be returned.
- Partial - A partial response will be returned, followed by either no response or an error
- Error - An unexpected error response will be returned.
- Ok - A successful response will to be returned.

System action:

None.

User action:

None.

Notes

Examples

AN1735mm.ab03

Directories

The level of directories to be added will be subdirectories under the Pmdebug level “SCEPTER” .

[PMDEBUG]
[AIDEBUG]
[SCEPTER]
[COMM]
[MMGR] <------> [STACK]

Table of New/Modified Directories

Table 5-121 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
COMM	NEW		SuperNode	RES
MMGR	NEW		SuperNode	RES
STACK	NEW		SuperNode	RES

The directories are as follows:

- COMM: This directory contains sub-directories to access the [MMGR} and [STACK] levels .
- MMGR: This new directory contains the commands to display the Memory Management status.
- STACK: This new directory contains the commands to display the Protocol Stack Status.

Accessing directory: MMGR

To access

To access this directory, the craftsperson enters the following commands:

CI:>PMDEBUG SMA <sma #> <unit #>

LTCUP:>AIDEBUG

PMDEBUG/AIDEBUG/>SCEPTER

PMDEBUG/AIDEBUG/SCEPTER>COMM

PMDEBUG/AIDEBUG/SCEPTER/COMM>

[dir]MMGR - Memory Management

[dir]STACK - TR303 Stack

PMDEBUG/AIDEBUG/SCEPTER/COMM>MMGR

PMDEBUG/AIDEBUG/SCEPTER/COMM/MMGR>

To return to CI

PMDEBUG/AIDEBUG/SCEPTER/COMM/MMGR>Quit

Accessing directory: STACK

To access

To access this directory, the craftsperson enters the following commands:

CI:>PMDEBUG SMA <sma #> <unit #>

LTCUP:>AIDEBUG

PMDEBUG/AIDEBUG/>SCEPTER

PMDEBUG/AIDEBUG/SCEPTER>COMM

PMDEBUG/AIDEBUG/SCEPTER/COMM>

[dir]MMGR - Memory Management

[dir]STACK - TR303 Stack

PMDEBUG/AIDEBUG/SCEPTER/COMM>STACK

PMDEBUG/AIDEBUG/SCEPTER/COMM/STACK>

To return to CI

PMDEBUG/AIDEBUG/SCEPTER/COMM/STACK>Quit

Commands: For Dir [MMGR]

The commands described in this section are located in a sub-directory under the new SCEPTER and COMM directory in UP PMDEBUG. This COMM PMDEBUG directory is present only in the SMA/SMA2 XPM.

Memory Manager Interface:

PS :Print partitioned segments in wksp.
PB :Print partition block data.
QBS :Query a block size.
QSI :Query segment info.
QSIZE :Query size of structure.
DERR :Displays MMGR error counts.
CERR :Clears MMGR error counts.
SU :Shows user counts for memory usage.

Table of New/Modified Commands

Table 5-122 MMGR Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
PS	NEW		MMGR
PB	NEW		MMGR
QBS	NEW		MMGR
QSI	NEW		MMGR
QSIZE	NEW		MMGR
DERR	NEW		MMGR
CERR	NEW		MMGR
SU	NEW		MMGR

Command name: PS

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The PS (Print segment) will list all segments (memory pages) which exist in the TR303 protocol stack work space.

Warning

Not Applicable.

Command syntax

>***PS***

Parameter Definitions

No parameters required for this command.

Responses

Response

USED SEGMENTS
==========

id	seg size	block size	num_blocks	num_free	used_map	start_addr
xx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xx	xxxxxxxx
xx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xx	xxxxxxxx
xx	xxxxxx	xxxxxx	xxxxxx	xxxxx	xx	xxxxxxxx

FREE SEGMENTS
==========

id	seg size	start_addr
xx	xxxxxx	xxxxxxxx
xx	xxxxxx	xxxxxxxx

Explanation:

USED SEGMENTS/FREE SEGMENTS
==========

Segments are pages of memory containing blocks of identical sizes. Segments are created by the memory manager as needed and placed in the “used segment” list. When all blocks within a segment are freed, the segment is placed in the “free segment” list.

id: The segment identifier, valid values range from 0 - INT_MAX.

seg size: The size of the segment, values range from 0 - INT_MAX.

block size: The block size allocated out of the given segment, valid values are (0 - INT_MAX).

num_blocks: Number of blocks within a given segment, valid values range from (1 - 8).

num_free: Number of free blocks within a given segment, valid values range from (1 - MAX_BLOCKS_IN_SEG).

used_map: 8-bit map whch marks relative position of used blocks within a segment. Valid values range from 00-FF.

start_addr: The address of the first byte of the segment, valid values are any memory address within the MMGR workspace.

System action:

None

User action:

None

Notes

None

Examples

```
PMDEBUG/AIDEBUG/SCEPTER/COMM/MMGR> PS
    USED SEGMENTS
    ==============
    id   seg size   block size   num_blocks  num_free   used_map  start_addr
     1      256          32           8          0        FF       50D6A04
     3      256          32           8          0        FF       50D6B7C
    FREE SEGMENTS
    ==============
    id   seg size   start_addr
```

```
0   261456    50D6C98
2       64    50D6B20
```

Command name: PB (Print Block data)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The PB command will list memory information ordered by block size.

Warning

Not Applicable.

Command syntax

>pb

Parameter Definitions

No parameters required for this command.

Responses

Response

Block size	Blocks Used	Total Memory
xx	xx	xxx
xx	xxxx	xxxxx

```
          Allocated memory:        xxxxx
          Internal Overhead:        xxxx
==================================
          Total memory usage:      xxxxx
          Highest total so far:     xxxxx
```

MMGR requests to system heap total between x and x bytes. **OR**
MMGR requests to system heap total x bytes.

Explanation:

Block size: The block size, valid values range from 0-INTMAX.

Blocks used: Number of blocks of given size used, valid values range from 0-INTMAX.

Total Memory: Block size X Blocks Used

Allocated Memory: Total of “Total Memory” column.

Overhead: Overhead used by the Memory Manager, which uses same workspace area for record-keeping as it does for memory allocation. This sum includes the space used for records and unused blocks within a used page.

Total Memory Usage: Allocated Memory + Overhead.

Highest total so far: The highest “Total Memory Usage” value reached since the last XPM initialization.

System heap usage: When the Memory Manager cannot satisfy an allocation request by reserving local workspace memory, it goes to the system heap. Unless all system heap allocations were of the same size, an exact amount of heap memory allocated by Memory Manager cannot be calculated, but a range can. Either format can be output, depending on allocation history.

System action:

None

User action:

None

Notes

None

Examples

Block size	Blocks Used	Total Memory
16	24	384
32	2290	73280

```
          Allocated memory:        73604
          Internal Overhead:        5000
==================================
          Total memory usage:      78604
          Highest total so far:    78604
```

MMGR requests to system heap total 0 bytes.

Command name: QBS(Query Block Size)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

QBS (block size): Returns information about the given block size.

Warning

Not Applicable.

Command syntax

>*qbs* <*block size*>

Parameter Definitions

Responses

Table 5-123 Parameter Definitions

PARAMETER	VALUE	DEFINITION
block size	0-int_max	A block size

Response

Please enter block size: *{user inputs a block size and carriage return}*

BLOCK SIZE xx
Segment list: x x x x x .....
Total block count: xx
Free blocks : xx
Used blocks : xx

Explanation:

Segment list: Segment id's of the segments with given block size
Total block count: Total blocks defined within the segment list.
Free blocks: Free blocks in the total block count.
Used blocks: Used blocks in the total block count.

System action:

None

User action:

None

Notes

None

Examples

Please enter block size: *{user inputs a block size and carriage return}*

BLOCK SIZE 16
Segment list: 2 48 56
Total block count: 24
Free blocks : 0

Used blocks : 24

Command name: QSI(Query Segment Info)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

QSI (seg id): Returns information about the given segment.

Warning

Not Applicable.

Command syntax

>*qsi <seg id>*

Parameter Definitions

Table 5-124 Parameter Definitions

PARAMETER	VALUE	DEFINITION
seg id	0-int_max	A segment identifier

Responses

Response

Please enter segment id: *{user inputs a segment id and carriage return}*

SEGMENT xx is {used/free}

id	seg size	block size	num_blocks	num_free	used_map	start_addr
xx	xxx	xx	xx	xx	xx	xxxxxxxx

Explanation:

Used/free status of segment is stated. The remaining fields are the same as those explained in Please refer to Section " Response" on page 312.

System action:

None

User action:

None

Notes

None

Examples

Please enter segment id: *1*

SEGMENT 1 is used.

id	seg size	block size	num_blocks	num_free	used_map	start_addr
1	256	32	8	0	FF	50D6A04

Command name: QSIZE(Query Size)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

QSI (*block_pointer*): Returns size of block pointed to by *block_pointer.*

Warning

Not Applicable.

Command syntax

>qsize <block_pointer>

Parameter Definitions

Table 5-125 Parameter Definitions

PARAMETER	VALUE	DEFINITION
block_pointer	memory address	a pointer to a block of memory

Responses

Response

Please enter pointer to memory: *{user inputs a pointer and carriage return}*

Block size is xx bytes. **OR**
Block with this pointer not found.

Block size may have been rounded up from original request.

Explanation:

block_pointer: A memory address.
If the given address is on a valid block boundary within a segment, the segment's "block_size" value is returned; otherwise the second statement is printed. Sometimes allocation requests will receive a bigger block than asked for, which is why the disclaimer is printed.

System action:

None

User action:

None

Notes

None

Examples

Please enter pointer to memory: *50AB88C*

Block size is 80 bytes.
Block size may have been rounded up from original request.

Command name: DERR(Display MMGR Error Counts)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

DERR: Prints error counts.

Warning

Not Applicable.

Command syntax

```
>DERR  {takes no parameters}
```

Parameter Definitions

No parameters.

Responses

Response

ERROR

```
COUNTS: zero_block bad_search gb_badsrec  gb_nofree rb_invaddr rb_badsrec   misc
        ========= ======== ========  =======  ======== ========  ====
             xx       xx        xx        xx       xx        xx       xx
```

Explanation:

The meaning of each error counter is shown below:
zero_block: An allocation was requested of size <= 0;
bad_search: Invalid parameter values encountered during block search;
gb_badsrec: A corrupt segment record encountered during gblock;
gb_nofree: A segment which was supposed to have free blocks, didn't.
rb_invaddr: Invalid seg record or block pointer encountered during rblock;
rb_badsrec: A corrupt segment record encountered during rblock;
misc: Any errors not covered above;

System action:

None

User action:

None

Notes

None

Examples

```
ERROR
COUNTS: zero_block bad_search gb_badsrec  gb_nofree rb_invaddr rb_badsrec   misc
        ========= ======== ========  =======  ======== ========  ====
             0        0         0         0        0         0        0
```

Command name: CERR(Clear MMGR Error Counts)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

CERR: Clears error counts.

Warning

Not Applicable.

Command syntax

```
>CERR  {takes no parameters}
```

Parameter Definitions

No parameters.

Responses

No responses. The error counts displayed using the DERR command are set to zero.

Notes

None

Examples

CERR

Command name: SU(Show Users)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

SU (user id): Returns currently allocated bytes for the given user id (or all user id's).

Warning

Not Applicable.

Command syntax

>su <user id>

Parameter Definitions

Table 5-126 Parameter Definitions

PARAMETER	VALUE	DEFINITION
user id	0-675	0-674=a user id, 675=all user id's

Responses

Response

Please enter id (0-674 or 675 for all users):
Please enter: user_id > *{enter id + carriage return}*

```
 id   Net Allocs       Bytes
==  ========      ====
xx    xx              xxxx
...
xx    xx              xxxx
```

Explanation:

This tool was introduced to track down individual users of MMGR store. Each user of this utility ideitifies himself before allocating memory. The tool then keeps a tally of used/free memory against that user.

id: the memory user's id (0-674);
Net allocs: Number of unfreed allocations currently held by given user;
Bytes: The total byte size of the unfreed allocations;

System action:

None

User action:

None

Notes

None

Examples

Please enter id (0-674 or 675 for all users):
Please enter: user_id > *675*

id	Net Allocs	Bytes
==	========	====
0	2453	110612
1	2293	73624

Commands: For dir [STACK]

The commands described in this section are located in a sub-directory under the new SCEPTER and COMM directory in UP PMDEBUG. This COMM PMDEBUG directory is present only in the SMA/SMA2 XPM.

Table of New/Modified Commands

Table 5-127 STACK Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
STATUS	NEW		STACK
CLEAR	NEW		STACK
VIEW	NEW		STACK

Command name: STATUS

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The STATUS command will display the current stack error count of the protocol functional areas specified at the command line.

Warning

Not Applicable.

Command syntax

>STATUS <AREA>

Parameter Definitions

Table 5-128 AREA Parameters

PARAMETER	VALUE	DEFINITION
ACSE	None	ACSE Protocol Actvity
ROSE	None	ROSE Protocol Activity
DECO	None	Decoding ASN.1 Messages.
CONF	None	Convergence Function Activity

Responses: STATUS <ACSE>

Response

ACSE STATUS

	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
aarq:	____	____	____	____	____	____	____	____
rlrq	____	____	____	____	____	____	____	____
rlre:	____	____	____	____	____	____	____	____

upar:	____	____	____	____	____	____	____	___
pser:	____	____	____	____	____	____	____	___
	____	____	____	____	____	____	____	___

Explanation:

For configured RDTs the ACSE status will indicate the number of times each event ocurred. The event count range is 0-255.

Int Node : Internal Node number derived from tei number.

AARQ: Number of times an AARQ PDU received from the RDT.
RLRQ: Number of times an RLRQ PDU received from the RDT.
RLRE: Number of times an RLRE PDU received from the RDT.
UNPAR: Number of times an unparseable ACSE PDU received from the
PSER: Number of times an Protocol Stack error occured

System action:

None

User action:

None

Notes

None

Examples

>STATUS ACSE

ACSE STATUS

Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
| 2	|	| 4	| 5	|	| 7	|	| 9
aarq: __3_	____	____	____	____	____	____	___
rlrq ____	____	____	____	____	____	____	__2
rlre: ____	____	_13_	____	____	__4_	____	___
upar: ____	____	____	____	____	____	____	___
pser: ____	____	____	__1_	____	____	____	___
____	____	____	____	____	____	____	___

Responses: STATUS <ROSE>

Response

ROSE STATUS

	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
gp_pdut:	____	____	____	____	____	____	____	____
gp_pdub:	____	____	____	____	____	____	____	____
gp_encb:	____	____	____	____	____	____	____	____
gp_invo:	____	____	____	____	____	____	____	____
gp_lkbd:	____	____	____	____	____	____	____	____
rr_ivoc:	____	____	____	____	____	____	____	____
re_ivoc:	_____	_____	_____	_____	_____	_____	_____	____

Explanation:

For explanation of ROSE problems please reference CCITT documents X.219/X229. The display will indicate the number of times each ROSE problem occurred.The error count range is 0-255.

Int Node :	Internal Node number derived from tei number.
	General Problem
gp_pdut:	Bad Type ID in PDU
gp_pdub:	Bad PDU Structure
gp_encb:	Bad Encoding of PDU
gp_invo:	OP type is Invalid for The Invoker
gp_lkbd:	Bad Linked Invoker Handler (ivH)
	Return Result Problem
rr_ivoc:	Unrecognized Invocation
	Return Error Problem
re_ivoc:	Unreognized Invocation

System action:

None

User action:

None

Notes

None

Examples

>STATUS ROSE

ROSE STATUS

	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
	2		4	5		7		9
gp_pdut:	3							
gp_pdub:								2
gp_encb:			13			4		
gp_invo:								
gp_lkbd:				1				
gp_invb:								
rr_ivoc:								
re_ivoc:								

Responses: STATUS <DECO>

Response

DECODING STATUS

	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
	2		4	5		7		9
edec:	3							
emem:								2
epdu:			13			4		

Explanation:

ASN.1 messages decoding type errorsThe error count range is 0-255..

Int Node : Internal Node number derived from tei number.

edec: Error encountered while performing BER decoding on a PDU.
emem: Error encountered in allocating memory to store decoded PDUs.
epdu: Unsupported PDU type encountered.

System action:

None

User action:

None

Notes

None

Examples

>STATUS DECO

DECODING STATUS

Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
	2		4	5		7		9
edec:	3							
emem:								2
epdu:			13			4		

Responses: STATUS <CONF>

Response

CONF STATUS

Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node	Int Node
	2		4	5		7		9
embb:	3							

eebb:	____	____	____	____	____	____	____	__2
ebbe:	____	____	_13_	____	____	__4_	____	____
eobe:	____	____	____	____	____	____	____	____
unkw:	____	____	____	__1_	____	____	____	____
tcon:	____	____	____	____	____	____	____	____
pser:	____	____	____	____	____	____	____	____
	____	____	____	____	____	____	____	____
	____	____	____	____	____	____	____	____

Explanation:

For each RDT the CONF status will indicate the number of times an convergence function error occurred.The error count range is 0-255.

Int Node :	Internal Node number derived from tei number.
embb:	Middle segment receive without first segment being received
eebb:	Last segment receive without first segment being received
ebbe	First segment was received while awaiting a middle or last segment
eobe:	Only segment was received while awaiting a middle or last segment.
unkw:	Bit pattern errors (bits 3-8 did not match expected pattern as prescribed by TR303.
tcon:	DSG Congestion.
PSER:	LAPD message Delivery Error.

System action:

None

User action:

None

Notes

None

Examples

>STATUS CONF

CONF STATUS

==========

Int | Int | Int | Int | Int | Int | Int | Int

	Node	Node	Node	Node	Node	Node	Node	Node
	2		4	5		7		9
embb:	3							
eebb:								2
ebbe:			13			4		
eobe:								
unkw:				1				
tcon:								
pser:								

Command name: CLEAR (Clear status area)

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The CLEAR command will clear ‘ALL’ current protocol error status infomation for ‘ALL’ protocol stack areas “ <AREA>”.

WARNING

Not Applicable.

Command syntax

>CLEAR

AREA Parameter Definitions

Table 5-129 Parameter Definitions

PARAMETER	VALUE	DEFINITION
ACSE		ACSE Protocol Activity.
ROSE		Rose Protocol Activity
DECO		Encoding/Decoding ASN.1 Messages.
CONF		Convergence Function Activity

Responses

Response

**** DONE ****

Explanation:

The system response will display “DONE” to indicate that the operation was successful. All counts of that <AREA> are set to zero and will be displayed as blank.

System action:

None

User action:

None

Notes

None

Examples

>CLEAR

**** Done ****

Commands: VIEW

The commands described in this section are located in a sub-directory under the new SCEPTER directory in UP PMDEBUG. This SCEPTER PMDEBUG directory is present only in the SMA/SMA2 XPM.

Command name: VIEW

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The VIEW command will display the PDU in error for the ROSE, DECO and also CONF convergence function Bytes for those specific areas of the Stack Protocol.

Warning

Not Applicable.

Command syntax

The Data display in this command will be of the AD or Abstract Data format.

>VIEW <AREA>

Responses : For command >VIEW ROSE

Response

The display will provide the latest five PDUs found to be in error for each TEI.

Explanation:

Each PDU's data is displayed in a hexadecimal format numbered 1-5, and 1 representing the most recent PDU found in error and 5 the least recent.

Note: Due to the critical nature of the resources utilized to store the errored PDU, it is discarded and cannot be viewed using the VIEW command if either of the following conditions exists for the PDU: a) it is the 6th oldest PDU (i.e. a maximum of 5 PDUs are stored for viewing), or b) it has been maintained for viewing by the VIEW command for 4 hours.

System action:

None

User action:

None

Notes

None

Examples

>VIEW ROSE

ROSE PDU DATA

==========

TEI 1

==========

00	00	BC	30	6C	41	00	A1
00	44	0C	2A	16	31	22	82
00	00	13	11	77	24	C2	37
1A	11	B3	77	10	FF	AA	22
30	00	1F	01	F1	1D	0F	00
B7	A1	11	0D	22	61	1D	FF
CC	1F	72	1C	10	08	3F	11
71	00	1D	D8	AA	00	2A	51
12	0F	F7	E1	D6	FF	13	10
.....	.....	.....	.....	.....	.....	.....	.....

Responses: For command *>VIEW DECO*

Response

The display will provide the latest five PDUs found to be in error for each TEI.

Explanation:

Each PDU's data is displayed in a hexadecimal format numbered 1-5, and 1 representing the most recent PDU found in error and 5 the least recent.

Note: Due to the critical nature of the resources utilized to store the errored PDU, it is discarded and cannot be viewed using the VIEW command if either of the following conditions exists for the PDU: a) it is the 6th oldest PDU (i.e. a maximum of 5 PDUs are stored for viewing), or b) it has been maintained for viewing by the VIEW command for 4 hours.

System action:

None

User action:

None

Notes

None

Examples

>VIEW DECO

DECODING VBUF DATA

==========

TEI #

==========

00	00	BC	30	6C	41	00	A1
00	44	0C	2A	16	31	22	82
00	00	13	11	77	24	C2	37
1A	11	B3	77	10	FF	AA	22
30	00	1F	01	F1	1D	0F	00
B7	A1	11	0D	22	61	1D	FF
CC	1F	72	1C	10	08	3F	11
71	00	1D	D8	AA	00	2A	51
12	0F	F7	E1	D6	FF	13	10
.....	.....	.....	.....	.....	.....	.....	.....

Responses: For command *>VIEW CONF*

Response

The display will provide the latest five PDUs found to be in error for each TEI.

Explanation:

Each PDU's data is displayed in a hexadecimal format numbered 1-5, and 1 representing the most recent PDU found in error and 5 the least recent.

Note: Due to the critical nature of the resources utilized to store the errored PDU, it is discarded and cannot be viewed using the VIEW command if either of the following conditions exists for the PDU: a) it is the 6th oldest PDU (i.e. a maximum of 5 PDUs are stored for viewing), or b) it has been maintained for viewing by the VIEW command for 4 hours.

System action:

None

User action:

None

Notes

None

Examples

>VIEW CONF

CONVERGENCE FUNCTION BYTES

TEI #							
00	00	BC	30	6C	41	00	A1
00	44	0C	2A	16	31	22	82
00	00	13	11	77	24	C2	37
1A	11	B3	77	10	FF	AA	22
30	00	1F	01	F1	1D	0F	00
B7	A1	11	0D	22	61	1D	FF

CC	1F	72	1C	10	08	3F	11
71	00	1D	D8	AA	00	2A	51
12	0F	F7	E1	D6	FF	13	10
.....	.....	.....	.....	.....	.....	.....	.....

Alarms

Alarm name:

None

Conditions required to raise the alarm

Duration of the alarm

AN1739mm.aa07

Directories

PRSMCIDIR

Table of New/Modified Directories

Table 5-130 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PRSMCIDIR	Changed		Supernode	RES

Accessing directory:PRSMCIDIR

To access

PRSM

To return to CI

QUIT

Commands

FREEMEM

Table of New/Modified Commands

Table 5-131 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
FREEMEM	changed		PRSMCIDIR

Command name:FREEMEM

Command type

Menu

Command target

Supernode

Command availability

Res

Command description

FREEMEM - Free the patch space used by a particular PRSU in a specific destination. The FREEMEM command is only valid on the CM and ISN nodes.

This feature enhances the FREEMEM command to support Generic Services Framework (GSF) increments. The above command description is the current one. This feature changes the command description as follows:

FREEMEM - Free store no longer used due to the application of a PRSU in a specific destination. The FREEMEM command is only valid on the CM and ISN nodes.

Warning

```
***WARNING*** Once the FREEMEM command has been used on a PRSU,
***WARNING*** the PRSU cannot be removed.  Please contact your
```

```
***WARNING*** next level of support before using this command.
```

This is the current warning. FREEMEM prevents the removal of a PRSU. This feature does not affect the current warning.

Command syntax

FREEMEM <prsuid> IN <dest_id>

This feature does not alter the syntax of the FREEMEM command.

Parameter Definitions

Table 5-132 Parameter Definitions

PARAMETER	VALUE	DEFINITION
prsuid	alphanumeric	set_definition
IN	N/A	
dest_id	alphanumeric	destination_name [device[unit]]

The prsuid parameter is changed to accept either a single prsuid or a set of increments.

Responses

This feature adds the following system responses to the FREEMEM command. Response 1 applies only to increment PRSUs. Response 2 applies to both increment and patch PRSUs otherwise eligible for FREEMEM.

Response

Response 1:

```
The following PRSUs will be freed:
<prerequisite n>
<prerequisite n-1>
<...>
<prerequisite 1>
<requested increment>
Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Response 2:

```
**WARNING: PRSU <prsuid> has not soaked for 90 days.
Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Explanation:

Response 1. If the increment being freed has one or more prerequisite increment(s), the user is prompted to confirm the freeing of the prerequisite increment(s). The variable fields list the prerequisite increments in the order they are to be freed. The response is visible on Supernode.

Response 2. If the PRSU has not soaked for the required period, the user is informed and prompted to confirm the soak override. The response is visible on Supernode.

System action:

Response 1. If the user responds Y, FREEMEM begins freeing the listed increments. If the user responds N, the FREEMEM is aborted.

Response 2. If the user responds Y, FREEMEM begins freeing the listed PRSUs. If the user responds N, the FREEMEM is aborted.

User action:

See “System action” above.

Notes

The FREEMEM command is mutually incompatible with imaging and Routine Exercise (REX) testing. It is planned that the FREEMEM command, when used to free increments, register with the System Activity Controller (SAC) to avoid conflict with scheduled REX testing and autoimaging.

Examples

```
>FREEMEM LET00006_B_00005 IN
The following PRSUs will be freed:
LET00006_B_00003
LET00006_B_00004
LET00006_B_00005
Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
```

Alarms

Not applicable.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1740mm.aa09

Directories

One new command is added to the PRSMCIDIR in this feature.

Table of New/Modified Directories

Table 5-133 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PRSMCIDIR	Changed	N/A	Supernode	RES

Accessing directory:PRSMCIDIR

To access

To access the PRSMCIDIR, the user types in PRSM or PRSMCI at the MAP.

To return to CI

The QUIT command returns the user to the base CI.

Commands

Originally this feature was to add two commands to the PRSM CI - AUTOINST and AUTOMATE. The AUTOINST command allowed the starting, stopping, and delaying of the Autoinstall process and the AUTOMATE command enabled the querying of the states of all the automated processes. Towards the end of feature development, CSR UV50389 was generated which tracked enabling some way to stop the File Audit and Status Audit processes. To keep PRSM and its user interface architecturally sound, it was decided to create one command, AUTOPROC, that would control the start, stop, delay, and query functions associated with the PRSM automated processes. Hence, the existing AUTOAPP and AUTOINST CI commands were combined into the AUTOPROC command.

Although much of the coding associated with the AUTOPROC command was completed under CSR UV50389, the command and its functions are being documented under AN1740 because the modifications attributed to the CSR greatly affected the AUTOINST command and functions implemented by this feature.

Table of New/Modified Commands

Table 5-134 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
AUTOPROC	New	N/A	PRSMCIDIR

Command name: AUTOPROC

Command type

The command type for the AUTOPROC command is NON-MENU.

Command target

The target for the AUTOPROC command is SUPERNODE.

Command availability

The AUTOPROC command is a RES command when the PRSM CI is resident.

Command description

The AUTOPROC command allows access to the PRSM automated processes. The command takes two non-optional parameters. The first parameter is an automated process that can be FILEAUD, AUTOAPP, AUTOINST, STATAUD, or ALL. The second parameter is the action to be performed on the given automated process. Values for the second parameter include START, STOP, DELAY, or QUERY.

Warnings

START Operation

When the AUTOPROC command is executed with the START operation, Figure 5-11 shows a warning that is displayed. This warning is informing the user that by manually invoking the specified automated process, a conflict could occur with the scheduling of the PRSM Automated Processes. Such a conflict could result in some of the automated processes that run via the PRSM Scheduler to be not executed for a given day.

Figure 5-11 START Warning Message

WARNING: A scheduling conflict may exist with manually starting this automated process. Manually starting this process may not permit other PRSM Automated Processes to run via command or the PRSM Scheduler. Please monitor PRSM logs

ALL PRSM Processes

When the AUTOPROC command is executed with the PRSM processes “ALL” value in conjunction with the DELAY or STOP operation, Figure 5-12 shows a warning that is displayed. This warning is informing the user that the entered operation is going to be performed on all the PRSM automated processes.

Figure 5-12 ALL Warning Message

```
WARNING: This command will perform the STOP operation on ALL PRSM
processes. Are you sure you want to continue?
```

Command syntax

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC
Next par is: <PRSM process> {ALL,
                             AUTOINST,
                             AUTOAPP,
                             STATAUD,
                             FILEAUD}
Enter: <PRSM process> <operation>
>xxxxx yyyyy


where xxxxx could be ALL, AUTOINST, AUTOAPP, STATAUD, or
FILEAUD and yyyyy could be START, STOP, DELAY, or QUERY.

%% NOTE: The AUTOPROC ALL START command is not supported. The
%% AUTOPROC AUTOINST commands are only supported in GSF-specific
%% software loads.
```

Parameter Definitions

Table 5-135 Parameter Definitions

PARAMETER	VALUE	DEFINITION
PRSM process	ALL	Requests an operation of all the PRSM automated processes. The START operation is not supported for this value.
	AUTOINST	Requests an operation of the Autoinstall process. The operations under this value are only supported in a GSF-specific software load.
	AUTOAPP	Requests an operation of the Autoapply process.
	STATAUD	Requests an operation of the Status Audit process.
	FILEAUD	Requests an operation of the File Audit process.
operation	START	Requests to START an automated process. This operation is not supported with the PRSM process value “ALL”.
	STOP	Requests to STOP an automated process if it is already running.
	DELAY	Requests to DELAY an automated process by one scheduled cycle; or cancels a DELAY that was issued previously.
	QUERY	Requests the current state of an automated process.

Responses

AUTOPROC ALL

AUTOPROC ALL START Responses

Figure 5-13 AUTOPROC ALL START

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL START
START is not a valid operation for ALL.
>
```

AUTOPROC ALL START Explanation:

The AUTOPROC ALL START command is not supported for the PRSM automated processes. If the end user wishes to have all the automated processes execute, table AUTOOPTS and AUTOPRSU should be altered to enable the PRSM Scheduler to wake up and begin execution.

AUTOPROC ALL START System action:

No system actions are implemented via execution of this command.

AUTOINST START User action:

None.

AUTOPROC ALL DELAY Responses

Figure 5-14 AUTOPROC ALL DELAY Total Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL DELAY
WARNING: This command will perform the DELAY operation on ALL PRSM
processes. Are you sure you want to continue?
>yes
Executing AUTOINST DELAY command.....
Executing AUTOAPP DELAY command.....
Executing STATAUD DELAY command.....
* DELAYED * The next scheduled STATUS AUDIT will be bypassed.
Executing FILEAUD DELAY command.....
* DELAYED * The next scheduled FILE AUDIT will be bypassed.
>
```

Figure 5-15 AUTOPROC ALL DELAY Partial Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL DELAY
WARNING: This command will perform the DELAY operation on ALL PRSM
processes. Are you sure you want to continue?
>yes
Executing AUTOINST DELAY command.....
ERROR: The Autoinstall Process is not scheduled to run.
     Therefore, it cannot be delayed.
Executing AUTOAPP DELAY command.....
ERROR: The Autoapply Process is not scheduled to run.
     Therefore, it cannot be delayed.
Executing STATAUD DELAY command.....
* DELAYED * The next scheduled STATUS AUDIT will be bypassed.
Executing FILEAUD DELAY command.....
* DELAYED * The next scheduled FILE AUDIT will be bypassed.
>
```

Figure 5-16 AUTOPROC ALL DELAY Cancel Partial Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL DELAY
WARNING: This command will perform the DELAY operation on ALL PRSM
processes. Are you sure you want to continue?
>yes
Executing AUTOINST DELAY command.....
Executing AUTOAPP DELAY command.....
Executing STATAUD DELAY command.....
* DELAY CANCEL * The next scheduled STATUS AUDIT will run.
Executing FILEAUD DELAY command.....
* DELAY CANCEL * The next scheduled FILE AUDIT will run.
>
```

AUTOPROC ALL DELAY Explanation:

The AUTOPROC ALL DELAY command controls whether all the automated processes should be delayed during the next execution of the PRSM Scheduler. If all of the automated processes have not been delayed and all the automated processes are scheduled to run, the AUTOPROC ALL DELAY command will delay all of the automated processes by one scheduled cycle.

It should be noted the AUTOPROC ALL DELAY command also has the ability to “cancel” any and all delays for the PRSM automated processes. If all the automated processes have already been delayed, the end user can execute the AUTOPROC ALL DELAY command to cancel the delay for all of the automated processes.

The AUTOPROC ALL DELAY should be used with caution. As it is powerful and flexible, it is possible to “delay” one automated process and to cancel a “delay” on another automated process with the same command. An automated process that has been “delayed” is only delayed when the PRSM Scheduler runs. For example, an automated process will successfully execute and run to completion via an AUTOPROC start command even after the automated process has been “delayed”.

AUTOPROC ALL DELAY System action:

A separate flag for each automated process controls whether the automated process should be delayed. When the AUTOPROC ALL DELAY command is executed, the flags associated with all the automated processes are toggled to inverse values. If an automated process is busy executing when the AUTOPROC ALL DELAY command is executed, the request to delay is rejected for that given automated process. In addition if the automated process is not scheduled to run on any days of the week, the request to delay is rejected.

AUTOPROC ALL DELAY User action:

If the end user wishes to attempt to toggle the delay values for all of the automated processes, a “yes” must be entered when prompted by the system for the AUTOPROC ALL DELAY command. If the end user wishes to abort execution of the command, a “no” must be entered when prompted by the system.

AUTOPROC ALL STOP Responses

Figure 5-17 AUTOPROC ALL STOP Failure

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL STOP
WARNING: This command will perform the STOP operation on ALL PRSM
processes. Are you sure you want to continue?
>yes
Executing AUTOINST STOP command.....
ERROR: The Autoinstall Process is not running.
Executing AUTOAPP STOP command.....
ERROR: The Autoapply Process is not running.
Executing STATAUD STOP command.....
* ERROR * The STATUS AUDIT is not running and therefore cannot be
stopped.
Executing FILEAUD STOP command.....
* ERROR * The FILE AUDIT is not running and therefore cannot be stopped.
>
```

Figure 5-18 AUTOPROC ALL STOP Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL STOP
WARNING: This command will perform the STOP operation on ALL PRSM
processes. Are you sure you want to continue?
>yes>autoproc all stop
* WARNING * This command will perform the STOP operation on ALL
        PRSM processes.  Are you sure you want to continue?
Please confirm ("YES", "Y", "NO", or "N"):
>y
Executing AUTOINST STOP command......
Executing AUTOAPP STOP command......
Executing STATAUD STOP command......
* ERROR * The STATUS AUDIT is not running and therefore cannot be
stopped.
Executing FILEAUD STOP command......
* ERROR * The FILE AUDIT is not running and therefore cannot be stopped.
>
```

AUTOPROC ALL STOP Explanation:

The AUTOPROC ALL STOP command enables the end user to stop all of the PRSM automated processes if they are running. As more than one automated process cannot be running at the same time, it is impossible for the AUTOPROC ALL STOP command to stop every automated process with the same command.

AUTOPROC ALL STOP System action:

When the AUTOPROC ALL STOP command is executed, a flag is set for the automated process that is executing. As Autoapply or Autoinstall could be in the process of applying or installing a PRSU, the actual stopping of the process could take several minutes depending on the state of the automated process.

AUTOPROC ALL STOP User action:

If the end user wishes to attempt to stop the automated processes, a “yes” must be entered when prompted by the system for the AUTOPROC ALL STOP command. If the end user wishes to abort execution of the command, a “no” must be entered when prompted by the system.

AUTOPROC ALL QUERY Responses

Figure 5-19 AUTOPROC ALL QUERY

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL QUERY
>autoproc all query
PRSM FILE AUDIT: Not running and will not be DELAYED.
Results from last run:
New PRSU files: 0, missing XPM PRSU files: 0, duplicate PRSU files: 0

AUTOAPPLY: Not running.

AUTOINSTALL: Not running.

PRSM STATUS AUDIT: Not running and will not be DELAYED.
>
```

AUTOPROC ALL QUERY Explanation:

The AUTOPROC ALL QUERY command enables the end user to determine the states of all the automated processes.

AUTOPROC ALL QUERY System action:

Each automated process is queried to determine its state when the command is executed.

AUTOPROC ALL QUERY User action:

None.

AUTOPROC FILEAUD

AUTOPROC FILEAUD START Responses

Figure 5-20 AUTOPROC FILEAUD START Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC FILEAUD START
Do you really want to START the FILE AUDIT now?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
* STARTED * The FILE AUDIT will be started now.
* COMPLETE * The FILE AUDIT has sucessfully ran to completion.
>
```

Figure 5-21 AUTOPROC FILEAUD START Failure

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC FILEAUD START
Do you really want to START the FILE AUDIT now?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
* STARTED * The FILE AUDIT will be started now.
* COMPLETE * The FILE AUDIT has sucessfully ran to completion.
>
```

AUTOPROC FILEAUD START Explanation:

The AUTOPROC FILEAUD START command enables the end user to start the File Audit automated process. The command fails if a PRSM automated process is already in progress when the command was executed.

AUTOPROC FILEAUD START System action:

When the AUTOPROC FILEAUD START command is executed, the PRSM automated processes are checked to ensure another automated process is not already in progress. If no other automated processes are in progress, the File Audit process begins execution.

AUTOPROC FILEAUD START User action:

If the end user wishes to attempt to start the automated process, a “yes” must be entered when prompted by the system for the AUTOPROC FILEAUD START command. If the end user wishes to abort execution of the command, a “no” must be entered when prompted by the system.

AUTOPROC FILEAUD DELAY Responses

Figure 5-22 AUTOPROC FILEAUD DELAY Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC FILEAUD START
Do you really want to START the FILE AUDIT now?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
* STARTED * The FILE AUDIT will be started now.
* COMPLETE * The FILE AUDIT has sucessfully ran to completion.
>
```

Figure 5-23 AUTOPROC FILEAUD DELAY Failure

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC FILEAUD START
Do you really want to START the FILE AUDIT now?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
* STARTED * The FILE AUDIT will be started now.
* COMPLETE * The FILE AUDIT has sucessfully ran to completion.
>
```

AUTOPROC FILEAUD DELAY Explanation:

The AUTOPROC FILEAUD START command enables the end user to start the File Audit automated process. The command fails if a PRSM automated process is already in progress when the command was executed.

AUTOPROC FILEAUD DELAY System action:

When the AUTOPROC FILEAUD START command is executed, the PRSM automated processes are checked to ensure another automated process is not already in progress. If no other automated processes are in progress, the File Audit process begins execution.

AUTOPROC FILEAUD DELAY User action:

If the end user wishes to attempt to start the automated process, a “yes” must be entered when prompted by the system for the AUTOPROC FILEAUD START command. If the end user wishes to abort execution of the command, a “no” must be entered when prompted by the system.

Figure 5-24 AUTOPROC ALL STOP Success

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOPROC ALL STOP
WARNING: This command will perform the STOP operation on ALL PRSM
processes. Are you sure you want to continue?
>yes>autoproc all stop
* WARNING * This command will perform the STOP operation on ALL
        PRSM processes.  Are you sure you want to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
Executing AUTOINST STOP command......
Executing AUTOAPP STOP command......
Executing STATAUD STOP command......
* ERROR * The STATUS AUDIT is not running and therefore cannot be
stopped.
Executing FILEAUD STOP command......
* ERROR * The FILE AUDIT is not running and therefore cannot be stopped.
>
```

AUTOPROC ALL STOP Explanation:

The AUTOPROC ALL STOP command enables the end user to stop all of the PRSM automated processes if they are running. As more than one automated process cannot be running at the same time, it is impossible for the AUTOPROC ALL STOP command to stop every automated process with the same command.

AUTOPROC ALL STOP System action:

When the AUTOPROC ALL STOP command is executed, a flag is set for the automated process that is executing. As Autoapply or Autoinstall could be in the process of applying or installing a PRSU, the actual stopping of the process could take several minutes depending on the state of the automated process.

AUTOPROC ALL STOP User action:

If the end user wishes to attempt to stop the automated processes, a “yes” must be entered when prompted by the system for the AUTOPROC ALL STOP command. If the end user wishes to abort execution of the command, a “no” must be entered when prompted by the system.

AUTOINST STOP Response

Figure 5-25 Autoinstall Successful Stop

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST STOP
Do you want to stop the Autoinstall Process now?
Please confirm: (Yes or No)
>yes
Attempting to stop the Autoinstall process.
>
```

Figure 5-26 Autoinstall Failure Stop

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST STOP
Do you want to stop the Autoinstall Process now?
Please confirm: (Yes or No)
>yes
* ERROR * The Autoinstall Process is in the process of stopping.
>
```

Figure 5-27 Autoinstall Stop Failure - Not Running

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST STOP
Do you want to stop the Autoinstall Process now?
Please confirm: (Yes or No)
>yes
* ERROR * The Autoinstall Process is not running.
>
```

AUTOINST STOP Explanation:

The AUTOINST STOP command attempts to stop an Autoinstall session that is already in progress. The AUTOINST STOP command stops the Autoinstall session if it is executed before the installation process finishes the coexistence phase of old and new software. Refer to GSF capability #199 for more information about the stages of increment installation.

An error message is displayed if the user attempts to stop the Autoinstall process while it is not running. In addition, the user is informed that the Autoinstall process is attempting to be stopped if the AUTOINST STOP command is invoked more than one time.

AUTOINST STOP System action:

Depending upon the phase of installation, automatic installation of increments is stopped.

AUTOINST STOP User action:

The user must respond with a “yes” or “no” to a prompt from Autoinstall indicating whether to proceed.

AUTOINST DELAY Response

Figure 5-28 Autoinstall Successful Delay

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST DELAY
The Autoinstall Process is scheduled to run after the PRSM File Audit on:
        FRI 11/17 at 23:00.
Do you want to delay the Autoinstall Process until after the File Audit on:
        FRI 11/24 at 2300?
Please confirm: (Yes or No)
>yes
>
```

Figure 5-29 Autoinstall Not Scheduled

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST DELAY
* ERROR *  The Autoinstall Process is not scheduled to run. Therefore, it cannot
be delayed.
```

Figure 5-30 Autoinstall Already Delayed

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST DELAY
* ERROR *  The Autoinstall Process has already been delayed. It is scheduled to
run after the PRSM File Audit on:
        FRI  11/24 at 23:00.
```

Figure 5-31 Autoinstall Already Running

```
CI:
>PRSM
PRSM:
Welcome to PRSM - Post Release Software Manager.
Type Q PRSMCI for a list of available commands, or
Type HELP for a list of available help topics.
>AUTOINST DELAY
* ERROR * The Autoinstall Process is running and cannot be delayed.
```

AUTOINST DELAY Explanation:

The AUTOINST DELAY command attempts to delay the running of the Autoinstall process by one scheduled cycle.

An error message is displayed if the user attempts to delay the Autoinstall process while the process is not scheduled to run. An error message is displayed if the user attempts to delay the Autoinstall process while the process has already been delayed. Finally, an error message is also displayed if the Autoinstall process is already executing when the DELAY command is entered.

AUTOINST DELAY System action:

As a result of this command, the Autoinstall process does not run on the next scheduled time.

AUTOINST DELAY User action:

The user must respond with a “yes” or “no” to a prompt from Autoinstall indicating whether to proceed.

Notes

When the AUTOINST START command is executed, the user initiating the command should monitor PRSM logs for results of the Autoinstall session.

Examples

Refer to the individual response sections in “ Responses” for examples.

Alarms

Alarm name:POST_AUTOPROCESS_SANITY_ALARM

Conditions required to raise the alarm

The percent of logs specified by the MONLIMIT field in table AUTOOPTS is exceeded. This can occur in the premonitor or postmonitor period that occurs around the execution of the PRSM automated processes. The MONLIMIT field is based on the logs in table AUTOMON.

Duration of the alarm

This alarm exists as long as the logs in table AUTOMON are being generated at an abnormal rate. It is up to the end user to verify the logs in table AUTOMON and verify that appropriate measures are taken to eliminate the generation of such logs. The alarm should not be lowered until the abnormal log generation is addressed.

AN1778mm.aa19

Directories

LGCDIR

Commands

Querypm

SwAct

Table of New/Modified Commands

Table 5-136 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SwAct	Changed		LGCDIR
Querypm	Changed		LGCDIR

Command name

QUERYPM

Command type

Menu

Command target

Supernode, Brisc

Command availability

RES

Command description

Querypm is an existing command used to query miscellaneous information about the posted XPM. The changes to this command are:

- Querypm - If the unit/s of the posted XPM contain Mtcarb, and if Mtcarb is functional in the unit/s, then the Querypm command will show that the unit has Mtcarb functional.
- Querypm Flt - If the unit/s of the posted XPM contain Mtcarb, and if Mtcarb is functional in the unit/s, then the Querypm Flt command will display a degradation level and a cardlist provided by the XPM unit.

Both of these commands are unchanged if Mtcarb is not functional in the XPM unit/s.

Warning

None.

Command syntax

```
QUERYPM: QUERY MISC INFO ABOUT THE PM
        Parms: [<OPTION> {FLT,
        CNTRS,
        FILES,
        DIAGHIST [<OPTHIST> {DIAG,
        CARD,
        RESET}]}]
```

SWACT

Command type

Menu

Command target

Supernode, Brisc

Command availability

RES

Command description

SwAct is an existing command used to switch unit activity on an XPM. The change to this command is:

— SwAct - if a manual swact is executed at the map level, then a preswact audit is performed on the XPM. If the preswact audit should fail, then a response is output to the map position with a failure reason. If the XPM unit contains MTCARB then the preswact response has changed. The new response will indicate the internal resource in the XPM unit that has a problem, and the level of degradation of that resource. A subsequent Querypm Flt will direct the user which card to replace.

Warning

None.

Command syntax

```
SWACT: Switch unit activity.
      NOW parameter will execute an immediate SWACT.
      TEST parameter will run OOS test when the
      newly inactive unit is RTSed.
      ALL parameter will execute SWACT on all PMs in the post
      set of the same PM type as the PM displayed on the MAP.
      FORCE parameter will override the SwAct decision
      of the SwAct Controller.
      COLD parameter will execute a COLD switch of activity.
Parms: [<NOW> {NOW}]
       [<TEST> {TEST}]
       [<ALL> {ALL}]
       [<FORCE> {FORCE}]
       [<COLD> {COLD}]
```

Responses

Response - Querypm

New text responses:

```
Mtcarb functional
Mtcarb disabled
```

Example:

```
querypm
  PM Type: DTC  PM No.: 0  PM Int. No.: 0  Node_No.: 23
  PMs Equipped: 63 Loadname: AAA
  WARM SWACT is supported and available.
  DTC 0 is included in the REX schedule.
  REX on DTC 0 has not been performed.
  Node Status: {OK, FALSE}
  Unit 0   Act, Status: {OK, FALSE}   MtcArb functional
  Unit 1 Inact, Status: {OK, FALSE}   Mtcarb disabled
  Site Flr RPos  Bay_id   Shf  Description    Slot     EqPEC
  HOST  03  B00  DTE   03  51  DTC : 000              6X02AA
```

Explanation: Mtcarb functional

If the unit contains the MTCARB feature, and the XPM unit has the feature functional, then the Querypm command will show that unit as having Mtcarb functional. This information is supplied for each unit, but only if MTCARB is functional.

Explanation: Mtcarb disabled

If the unit contains the MTCARB feature, and the XPM unit does not the feature functional, then the Querypm will show the unit as having Mtcarb disabled. This information is supplied for each unit, but only if MTCARB is disabled.

System action:

Output the new response to the mapci screen.

User action:

None.

Response - Querypm Flt

New text responses:

```
Potential service degradation in unit
Partial service degradation in unit
Severe service degradation in unit
No service degradation in unit
XPM failed to respond to QueryPM Flt msg
Unit at ROM
```

The new text response will also generate a cardlist if one is valid.

Example:

```
querypm flt
Node is ISTb
  One or both Units inservice trouble
  PSide Links out of
Unit 0
The following inservice troubles exist:
PM Load mismatch with Inventory table
Firmware Mismatch with Inventory Table service
Potential service degradation in unit
The following cards should be replaced:
Site Flr RPos  Bay_id   Shf  Description    Slot     EqPEC
HOST  03  B00  DTE   03  51  DTC : 000              6X02AA
Unit 1
The following inservice troubles exist:
PM Load mismatch with Inventory table
Firmware Mismatch with Inventory Table
No service degradation in unit
```

Explanation: All

If the XPM unit contains the MTCARB feature, and the XPM unit has the feature functional, then the Querypm Flt command will show a degradation level and cardlist provided by the XPM unit. This information is supplied for each unit, but only if MTCARB is functional.

If the text ‘XPM failed to respond to QueryPM Flt msg’ is output at the screen, then there was no response from the XPM when the CM sent the querypm flt message to the XPM. Try the Querypm Flt message again.

System action:

Output the new text response to the mapci screen.

User action:

The user should change any card listed in this response at the earliest convenient time.

Response - SwAct

The new response for the SwAct command is:

- If the XPM unit contains the MTCARB feature, and the XPM unit has the feature functional, then on a manual SwAct, if the preswact audit should fail, the response will show the level of degradation in the unit and the internal resource that is impacted.

New responses to the SwAct command if Preswact should fail:

The resources in the XPM:

```
Basic Hardware               % MTCARB_BASICHW
Basic CallP Capability       % MTCARB_BASICCP
Sync Capability              % MTCARB_SYNC
Signalling Capability        % MTCARB_SIGNAL
PSide Node Isolation         % MTCARB_PSNODE
Partial PSide Isolation      % MTCARB_PARTPS
CallP feature Capability     % MTCARB_CALLPFEAT
CSide Messaging Capability   % MTCARB_CSMSG
PSide Messaging Capability   % MTCARB_PSMSG
Reduced Capacity             % MTCARB_CAP
ESA Capability               % MTCARB_ESA
Reliability Circuitry      % MTCARB_CIR
Diagnostic Capability      % MTCARB_DIAG
Loss of Redundancy         % MTCARB_LOSSREDUN
Undefined MtcArb Reason    % MTCARB_SPARE0
```

The degradation level in the XPM:

```
Potential service degradation
Partial service degradation
Severe service degradation
```

Example:

```
A Warm SwAct will be performed after
data sync of active terminals.
The XPM has reasons not to recommend a SwAct
A SWACT would cause partial service degradation
related to sync capability.
The SWACT FORCE Command may be used to
Override the Swact Controller
```

Explanation:

The preswact failure response tells the user what level of service that unit can provide, and what resource in the XPM has a fault.

System action:

Output the new text response to the mapci screen.

User action:

If the preswact audit should fail, the user should perform a Querypm Flt for a list of cards to replace.

Notes

The new responses are generated only if Mtcarb is functional in the unit/s. The responses are unchanged if Mtcarb is not functional in the unit/s.

AN1796mm.aa09

Directories

Not applicable

Table of New/Modified Directories

Table 5-137 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

The output for the PRSM SELECT command is affected by this feature.

Table of New/Modified Commands

Table 5-138 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SELECT	CHANGED		PRSM

Command name: SELECT

Command type

Menu

Command target

SUPERNODE and Power PC

Command availability

The PRSM SELECT command is a RES command.

Command description

The SELECT command ouputs information to the user on PRSM database data.

Warning

No warnings.

Command syntax

The command syntax has not changed.

Parameter Definitions

Table 5-139 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

The response of the PRSM SELECT command is the only external interface change made in this feature.

Response

The response from the SELECT command is always a report on the data selected. The response when the loadname is selected is modified by this feature.

Explanation:

The SELECT command is updated in this feature to print a new update loadname. The update loadname is printed as a multiple loadname field when selecting DEST data. If the DEST loadname and the DEST update loadname are different, each is printed in column format under the loadname field selection.

System action:

No system action.

User action:

No user action required.

Notes

None

Examples

```
>select informload
DEST DEV UNIT LOADNAME
---- --- ---- --------
CM             LOADNAME
SITE           LOADNAME
MS     0       MEX05BE
               MEC06BD
MS     1       MEX05BE
               MEC06BD
```

Alarms

Not Applicable

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1811mm.aa12

Directories

Not Applicable

Table of New/Modified Directories

Table 5-140 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

TRAVER

SOC

Table of New/Modified Commands

Table 5-141 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	Changed		
SOC	Changed		

Command name: TRAVER

Command type

NON-MENU

Command target

SUPERNODE/BRISC

Command availability

RES

Command description

The **TRA**nslation **VER**ification utility is used to display the path of the specified call through translation and routing tables.

TRAVER is enhanced to display the following warning messages for Zero Plus and Zero Minus calls.

Warning

No Change

Command syntax

No Change

Parameter Definitions

Not Applicable

Table 5-142 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command Name: SOC

See NTP 297-8991-901 (Software Optionality Control User's Manual) for a full listing of applicable SOC CI commands.

Command Description

SOC will function as described in the NTP listed in the section above except that when SOC for the IntraLATA PIC Enhancements feature transitions from the IDLE state to the ON state before a TABXFR has been performed, a warning message will be displayed informing the operator of the problems involved in going to IDLE before datafill is present in the appropriate tables. The operator will be prompted to reconfirm the desire to go to IDLE.

Responses

Response

Explanation:

System action:

None

User action:

Notes

None

Examples

Alarms

Not Applicable

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1813mm.aa10

Directories

Not Applicable

Table of New/Modified Directories

Table 5-143 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

TRAVER

SOC

Table of New/Modified Commands

Table 5-144 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	Changed		
SOC	Changed		

Command name: TRAVER

Command type

NON-MENU

Command target

SUPERNODE/BRISC

Command availability

RES

Command description

The **TRA**nslation **VER**ification utility is used to display the path of the specified call through translation and routing tables.

TRAVER is enhanced to display the following warning messages for Zero Plus and Zero Minus calls.

Warning

No Change

Command syntax

No Change

Parameter Definitions

Not Applicable

Table 5-145 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command Name: SOC

See NTP 297-8991-901 (Software Optionality Control User's Manual) for a full listing of applicable SOC CI commands.

Command Description

SOC will function as described in the NTP listed in the section above except that when SOC for the IntraLATA PIC Enhancements feature transitions from the IDLE state to the ON state before a TABXFR has been performed, a warning message will be displayed informing the operator of the problems involved in going to IDLE before datafill is present in the appropriate tables. The operator will be prompted to reconfirm the desire to go to IDLE.

Responses

Response

Explanation:

System action:

None

User action:

Notes

None

Examples

Alarms

Not Applicable

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1814mm.aa10

Directories

Not Applicable

Table of New/Modified Directories

Table 5-146 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

TRAVER

SOC

Table of New/Modified Commands

Table 5-147 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	Changed		
SOC	Changed		

Command name: TRAVER

Command type

NON-MENU

Command target

SUPERNODE/BRISC

Command availability

RES

Command description

The **TRA**nslation **VER**ification utility is used to display the path of the specified call through translation and routing tables.

TRAVER is enhanced to display the following warning messages for Zero Plus and Zero Minus calls.

Warning

No Change

Command syntax

No Change

Parameter Definitions

Not Applicable

Table 5-148 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Command Name: SOC

See NTP 297-8991-901 (Software Optionality Control User's Manual) for a full listing of applicable SOC CI commands.

Command Description

SOC will function as described in the NTP listed in the section above except that when SOC for the IntraLATA PIC Enhancements feature transitions from the IDLE state to the ON state before a TABXFR has been performed, a warning message will be displayed informing the operator of the problems involved in going to IDLE before datafill is present in the appropriate tables. The operator will be prompted to reconfirm the desire to go to IDLE.

Responses

Response

Explanation:

System action:

None

User action:

Notes

None

Examples

Alarms

Not Applicable

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AN1825mm.aa04

Directories

PROGDIR

Table of New/Modified Directories

Table 5-149 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	NEW	CRSEQRST	BOTH	RES

Accessing directory: PROGDIR

To access

CRSEQRST

To return to CI

No action necessary

Commands

Table of New/Modified Commands

Table 5-150 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CRSEQRST	NEW		PROGDIR

Command name: CRSEQRST

Command type

NON-MENU

Command target

BOTH

Command availability

RES

Command description

CRSEQRST, is created to reset the ‘Call Sequence Number’ when needed. This command displays the current value of the ‘Call Sequence Number’ to the user and provides a warning to the user. The user must then confirm the request to reset it.

Warning

Not applicable.

Command syntax

>CRSEQRST

Parameter Definitions

Not applicable. There are no parameters for this command.

Responses

Response

WARNING : Call Sequence Number will be reset !

The current value is :

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

Explanation:

Display the current value of the Call Sequence Number and provide the user with an opportunity to abort resetting it.

System action:

Not applicable.

User action:

Not applicable.

Notes

Not applicable.

Examples

>crseqrst

WARNING : Call Sequence Number will be reset !

The current value is : 0000005

Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
Done.
>

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Not applicable.

Duration of the alarm

Not applicable.

AN1829mm.aa04

Feature title

TPC06: Support for QMSCASE, OLNS, OSSAIN, Compatibility & UMP.

Feature synopsis

This feature description section includes all TPC Human-Machine Interface changes introduced in the TPC06 stream. This includes the following features:

- TOPS Position Controller (TPC) / Computing Module (CM) Load Compatibility.
- Universal Message Protocol (UMP) enhancement.
- Multipurpose Position (MP) support for Originating Line Number Screening (OLNS).
- Multipurpose Position (MP) support for Operator Services Systems Advanced Intelligent Network (OSSAIN) operator backup.
- Queue Management System (QMS) Customer Assistance Service Enhancement (CASE).

A description of the Human-Machine-Interface changes for each feature follows this introduction.

TPC/CM Load Compatibility

Feature title

TOPS Position Controller (TPC) / Computing Module (CM) Load Compatibility.

Background

There are no changes to the TOPS Multipurpose Position (MP) and the TOPS TPC Administration and Maintenance Interface (TAMI) Human Machine Interface (HMI) for this feature.

TOPS MP Changes

There are no changes to the TOPS Multipurpose Position (MP) Human Machine Interface (HMI) for this feature.

TOPS TAMI Changes

There are no changes to the TOPS TPC Administration and Maintenance Interface (TAMI) Human Machine Interface for this feature.

Universal Message Protocol Enhancement

Feature title

Universal Message Protocol (UMP) enhancement.

Background

There are no changes to the TOPS Multipurpose Position (MP) and the TOPS TPC Administration and Maintenance Interface (TAMI) Human Machine Interface (HMI) for this feature.

TOPS MP Changes

There are no changes to the TOPS Multipurpose Position (MP) Human Machine Interface (HMI) for this feature.

TOPS TAMI Changes

There are no changes to the TOPS TPC Administration and Maintenance Interface (TAMI) Human Machine Interface for this feature.

MP support for Originating Line Number Screening

Feature title

MP support for Originating Line Number Screening (OLNS).

Background

The Originating Line Number Screening (OLNS) feature allows a operating company to reduce maintenance of subscriber information by centralizing the information in an external database, called a Line Information Database (LIDB).

When the OLNS feature is activated, through Software Optionality Control (SOC), calls arriving at a Traffic Operator Position System (TOPS) switch try to access subscriber information through a query to the LIDB. The LIDB returns the subscriber information in a response message to the TOPS switch. The TOPS switch uses the information received from the LIDB to determine the billing method, call routing, and services allowed. When no response message is received from the LIDB, a response message is missing needed data, or there are billing or service restrictions, the TOPS switch determines what action to take based on operating company-configureable decision tables.

When the TOPS switch determines that a call requires operator assistance, the call is routed to an operator position, and OLNS query status indicators, service or equipment type, billing restriction information, treatment type, and restricted calling card information are displayed at the operator position as required. The operator then has several options available to finish processing the call.

TOPS MP Changes

OLNS screening and routing toll call arrival

The OLNS “service and equipment”, “billing restriction”, and “alpha-numeric text” information strings are customer datafillable through DMS tables. If any of these tables are datafilled when an OLNS toll call arrives at a TOPS Multipurpose Position (MP), the OLNS information shows up as part of the initial call presentation.

If datafilled, the OLNS “service and equipment” information appears in the Call Type Bar at the top of the Call Processing Window, and the OLNS “billing restriction” and “alpha-numeric text” strings appear in the Call Details Window. Please refer to “Figure 5-32 OLNS toll call presentation” on page 388.

The “Billing restriction” and “Alpha-numeric text” strings in the Call Details Window have labels ‘RST’ and ‘TXT’, respectively. Please refer to “Table 5-151” on page 387 for an example of the TOPS MP Billing Restriciton and Alpha-Numeric field labels for supported languanges.

Table 5-151 TOPS MP Billing Restriciton and Alpha-Numeric field labels for supported languanges

Language	Billing Restriction label	Alpha-Numeric label
English	“RST” short for “Restriction”	“TXT” short for “Alpha-Numeric text”
French	“RST” short for “Restreindre”	“TXT” short for “alpha-nume’rique texte”

Table 5-151 TOPS MP Billing Restriciton and Alpha-Numeric field labels for supported languanges

Language	Billing Restriction label	Alpha-Numeric label
Spanish	“RST“ short for “Restriccio’n“	“TXT” short for “alpha-nume’rico texto”

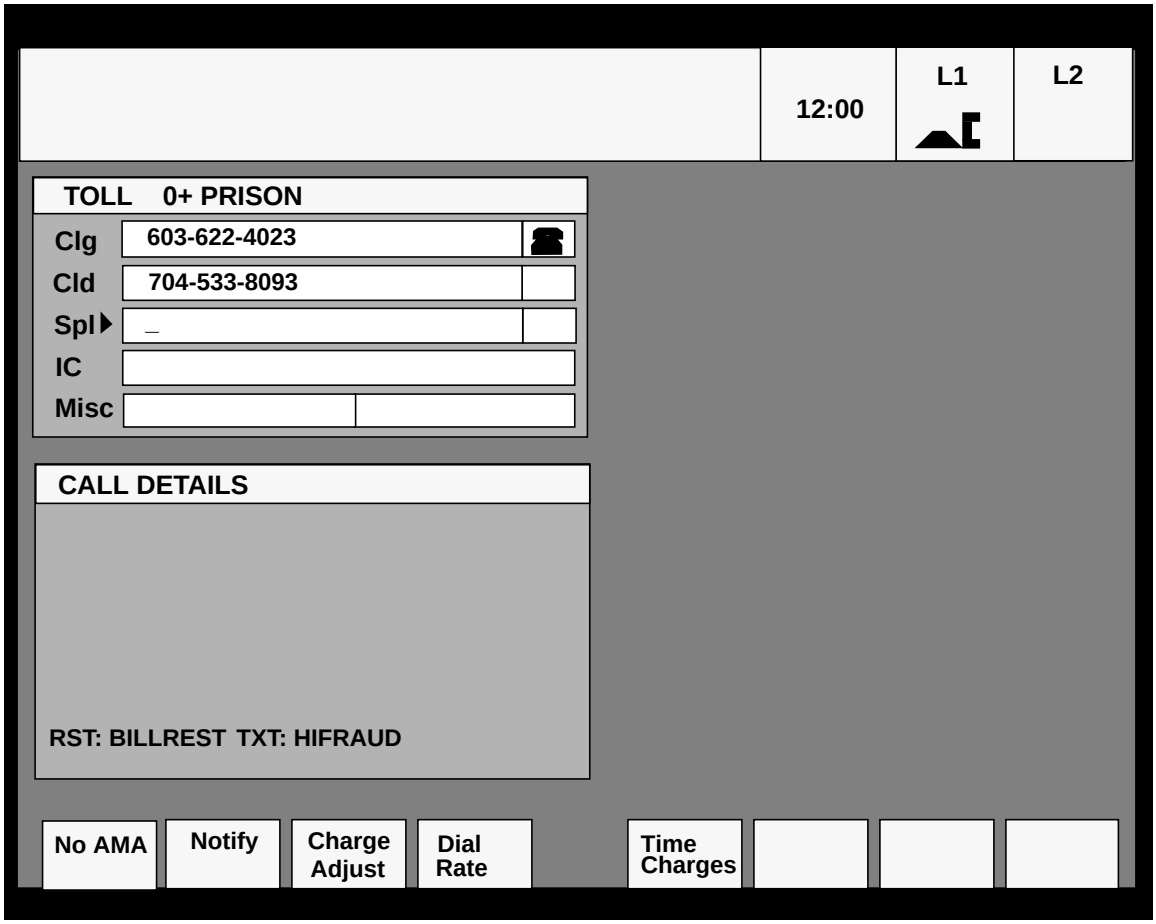


Figure 5-32 OLNS toll call presentation

OLNS screening and routing directory assistance call arrival

If a Directory Assistance (DA) call is sent to the TOPS MP, the only OLNS information initially visible, if data filled, is the OLNS “service and equipment” information string displayed in the Call Type Bar at the top of the Call Processing Window. Please refer to “Figure 5-34 OLNS DA call presentation” on page 390.

If the OLNS “billing restriction” and “alpha-numeric text” strings are data filled at the CM, the operator will have to enter the DA Billing Screen to see these displayed in the Call Details Window.

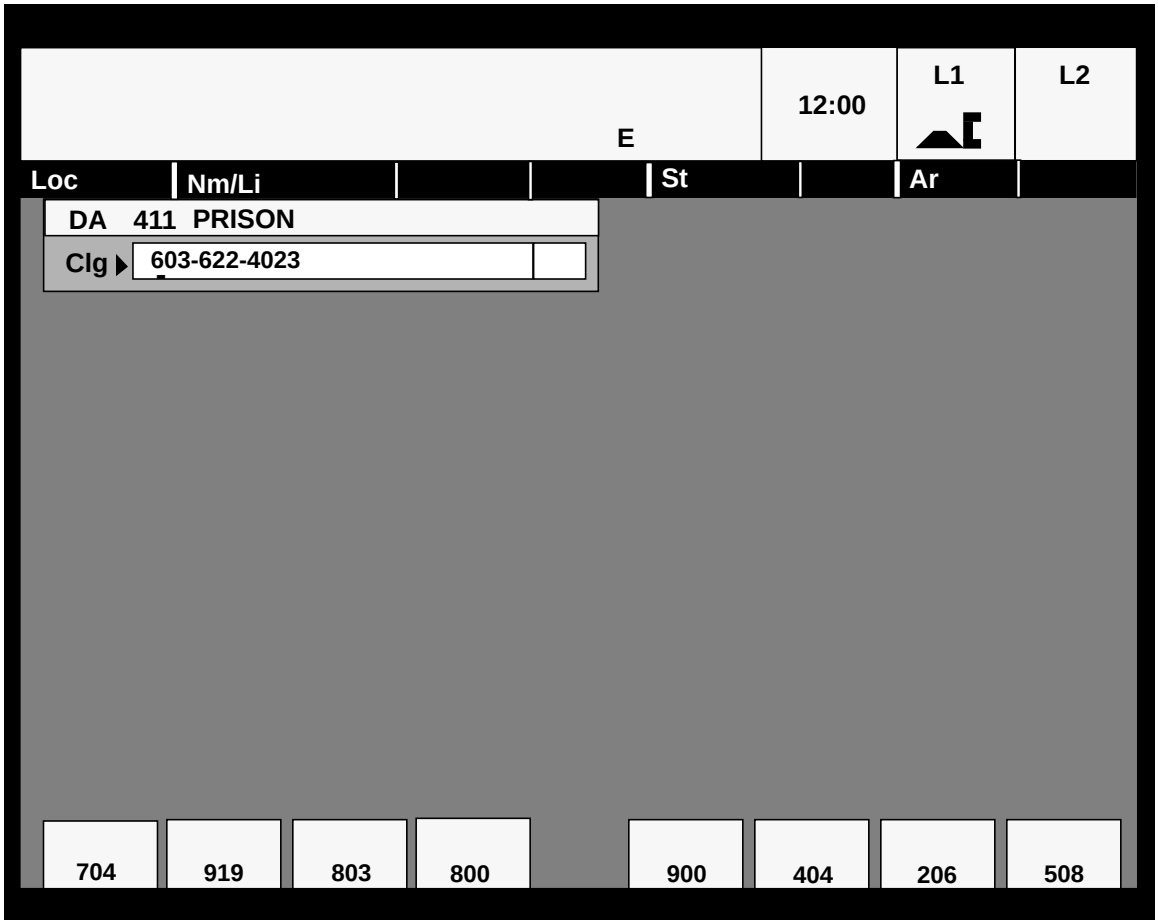


Figure 5-33 OLNS DA billing screen presentation

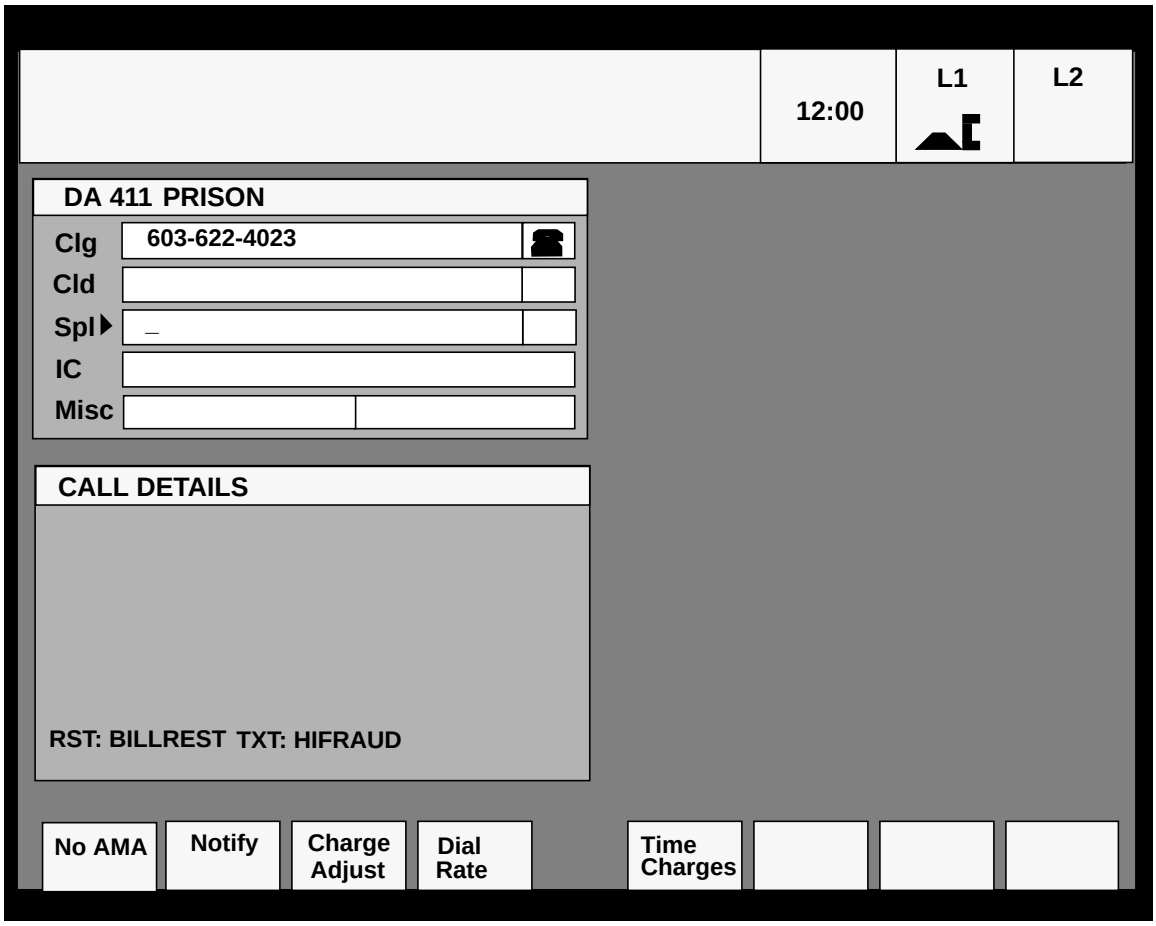


Figure 5-34 OLNS DA call presentation

OLNS “query in progress” indicator

When an operator receives an ONI or ANIF call, with a ‘?’ or an ‘X’ in the calling field, the DMS does not have a complete calling number and cannot automatically launch the OLNS query prior to call arrival. The operator must enter the calling number, **clg + number + START**, to launch the query.

While the query is in progress, the “query in progress” indicator is displayed. The “query in progress” indicator is a clock icon that appears in the calling number field of the call processing area of the MP. Once the query is complete, the “query in progress” indicator is removed. Please refer to “Figure 5-35 OLNS “query in progress” indicator” on page 391.

If the query is successful, the query results are displayed. Please refer to “Figure 5-32 OLNS toll call presentation” on page 388.

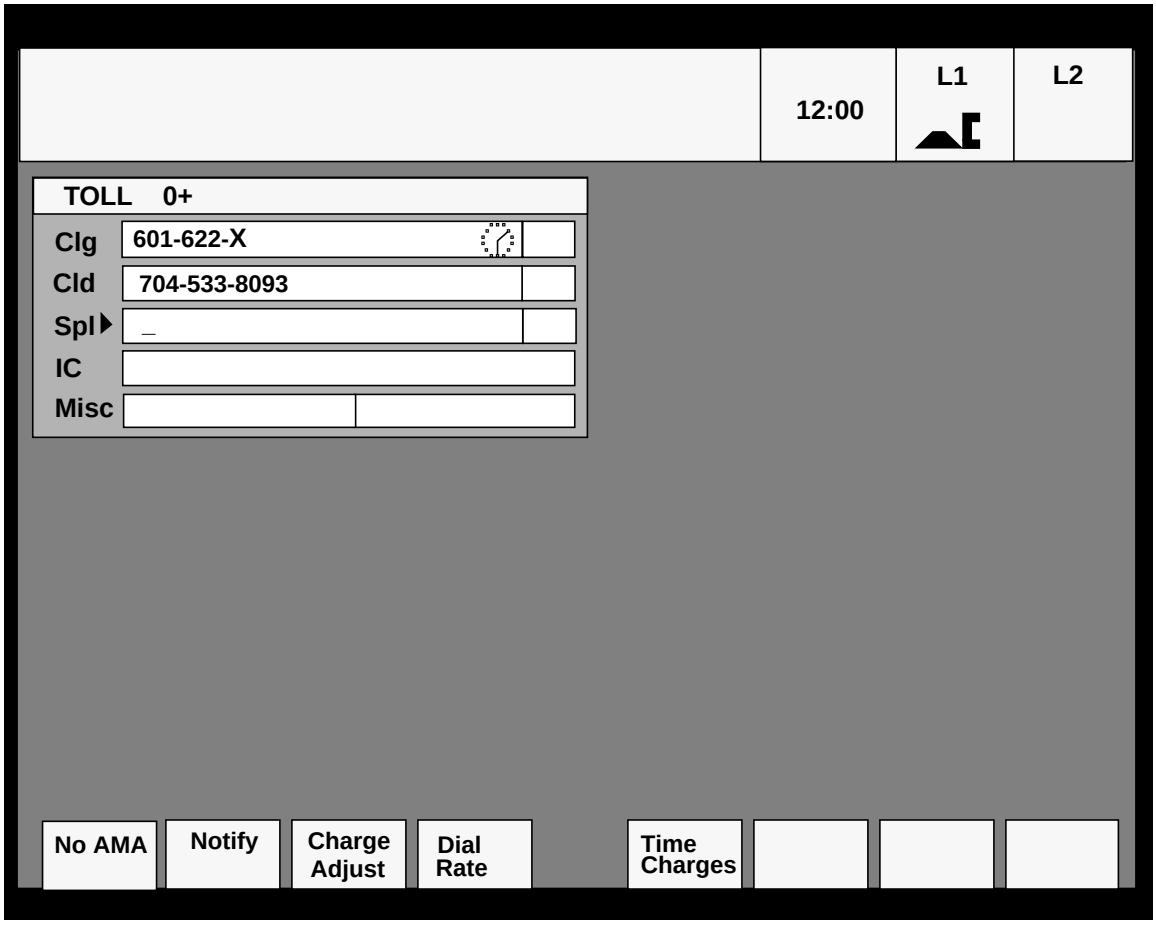


Figure 5-35 OLNS “query in progress” indicator

OLNS “Restricted IntraLATA” indicator

When a Disallowed Card Issuer call is routed to the TOPS MP, the “restricted intraLATA indicator”, “NoMHA”, is displayed.

The OLNS “restricted intraLATA indicator” is displayed in the Billing Message field[1] of the Message Status Area. Please refer to “Figure 5-36” on page 392 for an example of the OLNS “restricted intraLATA” indicator.

A TOPS MP datafilled for English, French, or Spanish language displays translations for the “restricted intraLATA” indicator. Please refer to “Table 5-152” on page 392 for an example of the OLNS “query not attempted” Indicators for supported language.

[1]The Billing Message Field is shared with External - Real-Time Rating System (RTRS) indicators. If contention for the field occurs, RTRS displays have precedence

Table 5-152 OLNS “query not attempted” Indicators for supported language

Language	Restricted IntraLATA Indicator
English	“NoMHA” short for “No Mutual Honoring Agreement”
French	“AucRA” short for “Aucun reciproque accord”
Spanish	“CMDis“ short for “contrato a mutuo no Disponible“

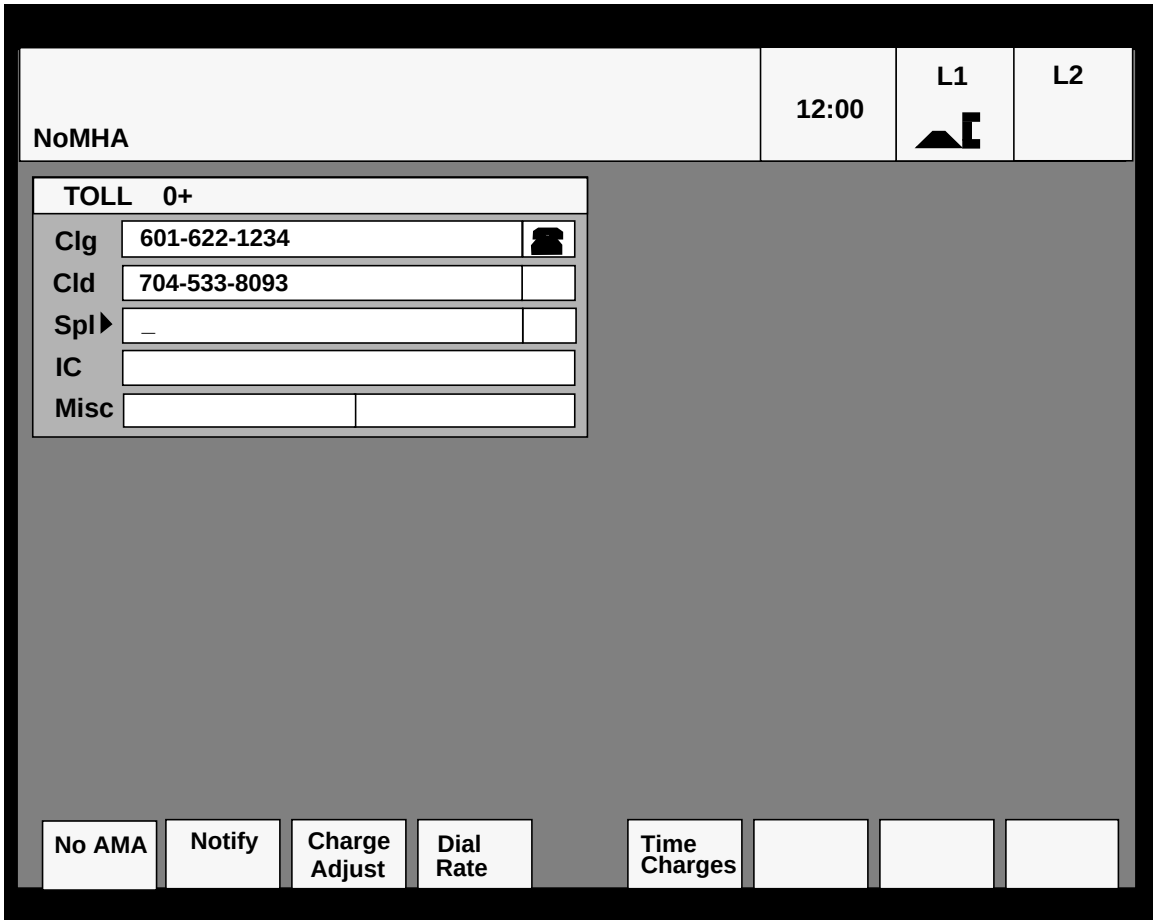


Figure 5-36 OLNS “restricted intraLATA” indicator

TOPS TAMI Changes

There are no changes to the TOPS TPC Administration and Maintenance Interface (TAMI) Human Machine Interface for this feature.

MP Support for OSSAIN operator backup

Feature title

Multipurpose Position (MP) support for Operator Services Systems Advanced Intelligent Network (OSSAIN) operator backup.

Background

Prior to this feature, an Operator Services System Advanced Intelligient Network (OSSAIN) service node did not have the ability to transition a call to a Traffic Operator Position System (TOPS) Multipurpose Position (MP). This is because there was no functionality available for the OSSAIN service node to send OSSAIN information to the MP position.

TOPS MP Changes

The OSSAIN operator-backup functionality allows calls to transition from an OSSAIN service node to a TOPS MP. When the call is sent to the TOPS MP, through the TOPS Switch, the OSSAIN service node may also send a text message. The TOPS MP OSSAIN text message is a twenty character field displayed in the Extended Call Details Window. The OSSAIN service node is responsible for the text message format, language and content. Please refer to “Figure 5-37 OSSAIN call presentation” on page 394.

The OSSAIN text message displayed in the Extended Call Details Window has the label ‘**OprTxt**’. Please refer to “Table 5-153 OSSAIN text-to-operator-message-field label” on page 393 for the OSSAIN Text-to-operator labels of supported languages.

Table 5-153 OSSAIN text-to-operator-message-field label

Language	Label
English	“OprTxt” short for “operator text message”
French	“TelTxt“ short for “Téléphoniste texte Message“
Spanish	“OprTxt“ short for “Operador texto recado“

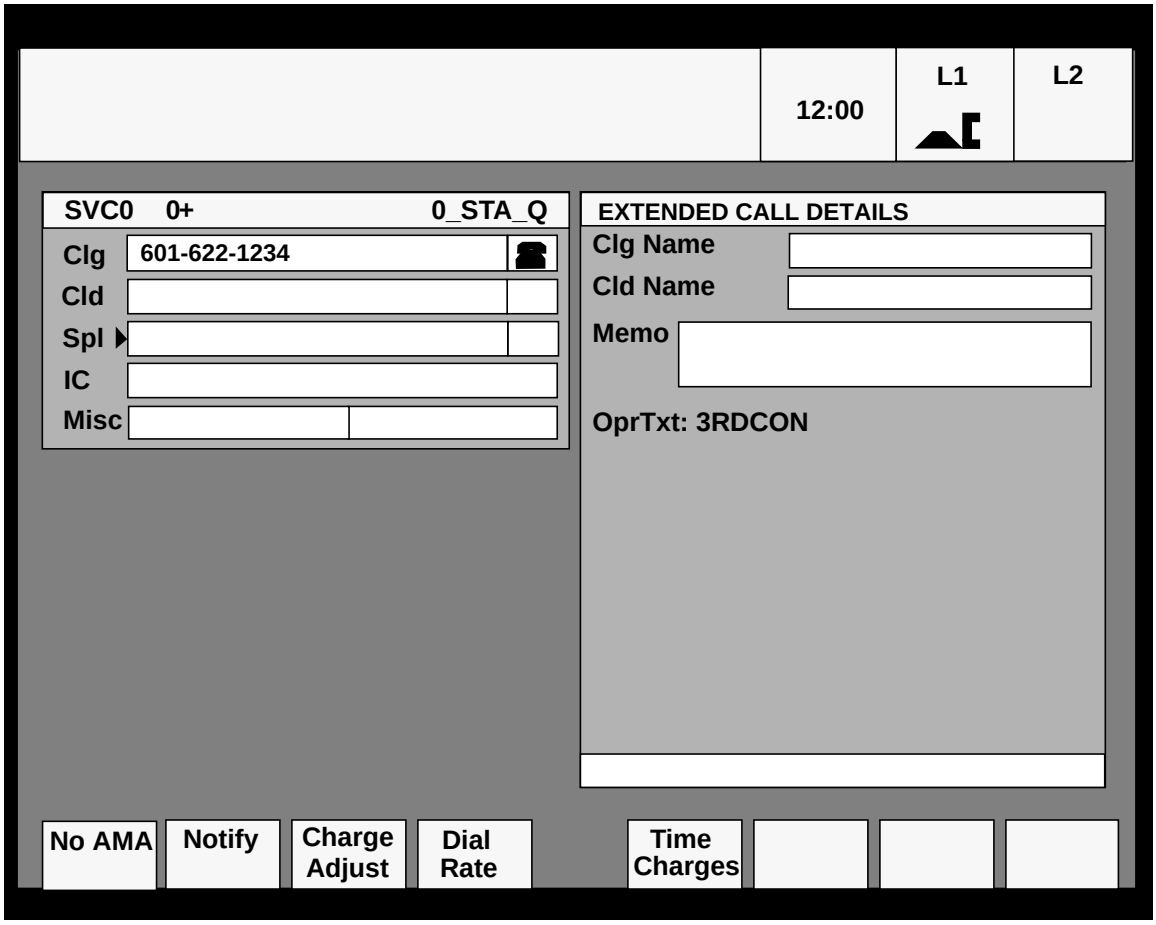


Figure 5-37 OSSAIN call presentation

TOPS TAMI Changes

There are no changes to the TOPS TPC Administration and Maintenance Interface (TAMI) Human Machine Interface for this feature.

Queue Management System Customer Assistance Service Enhancement

Feature title

Queue Management System (QMS) Customer Assistance Service Enhancement (CASE).

TOPS MP changes

Assistance

There are three main kinds of assistance: general, directed, and paging. All three were available before QMS CASE, but QMS CASE changes the way they appear to the operators.

General assistance is available to all operators without restriction.

The INTEROPR CM capability gives an operator the ability to perform pages and make directed assistance requests to all operators. Other operators can also request to initiate a page or a directed assistance call, and the CM honors the request if the requested operator has the INTEROPR capability.

General assistance

The ability to make a general assistance request is *not* restricted to operators with the INTEROPR capability. From the requester's perspective, the request is accomplished as before.

Making a general assistance request

Press **Fncts** + **General Assistance** + **Start**. (Please refer to "Figure 5-61 Fourth page of the functions menu" on page 426.)

Depending on the office configuration, the general assistance request may be handled by an SA, IC, or CSE. This document describes only the handling by a CSE. SA/IC treatment of general assistance requests has not been changed. However, the operator connecting to the SA/IC sees changes in their screen displays. Please see the Interactions section in the FN.

If no assisting operators are currently available, the requesting operator is placed in a queue. Please refer to "Figure 5-38 Waiting in queue for assistance" on page 397. The requesting operator *does not* hear ringing with QMS CASE; however the operator sees "Queued" displayed in the message status area.

When the assisting operator is available, the requesting operator screen is updated. Please refer to "Figure 5-39 Screen of an operator requesting general assistance when connected to a CSE" on page 398.

When a call arrives at the CSE's position, the CSE's screen appears as shown in either "Figure 5-40" on page 399 or "Figure 5-41" on page 400. The difference in the two depends on whether the requesting operator is still present on the call. If the requesting operator is still present when the request is presented, Figure 5-40 results. Figure 5-41 shows the appearance of a call when the requesting operator has dropped off. The requesting operator can drop off by pressing Pos Rls while waiting in a call queue.[1]

Once the connection is established, the operators may converse with each other and with the subscriber. Either operator can key information in for the call[2]. If the action changes some aspect of the call from the CM's perspective, both operators see the responses from each other's keying.

Either operator may press the Pos Rls key to disconnect from the call. This disconnection has no effect on the remaining operator and the subscriber unless the call is DA with a listing selected. In this case, the DAS interprets the Pos Rls by either operator as a request to end the call. (The other operator should use the "Release Operator" function in this case.)

Also, either operator may use the new "Release Operator" function to release the other operator without affecting the call.

The "Release Operator" function may be used in the following situations:

- After requesting general assistance, the operator may be held in an assistance call queue too long and may want to exit.
- After conversing with the CSE, the operator may not need additional help and may want to release the CSE and continue handling the call.
- After the connection is established between the operator and the CSE, the CSE may decide to handle the call and may release the operator.

Cancelling a general assistance request or

Disconnecting another operator from the call

Press **Fncts** + **Release Operator** + **Start**. (Please refer to "Figure 5-61 Fourth page of the functions menu" on page 426.)

[1]DA calls using standard protocol have a restriction relating to the Pos Rls in general assistance queue. Please refer to "Figure 5-38 Waiting in queue for assistance" on page 397.

[2]The dual keying control is not supported for the IBM DAS protocol. A CSE can handle general assistance requests from operators using IBM DA, but the CSE cannot key in for the call.

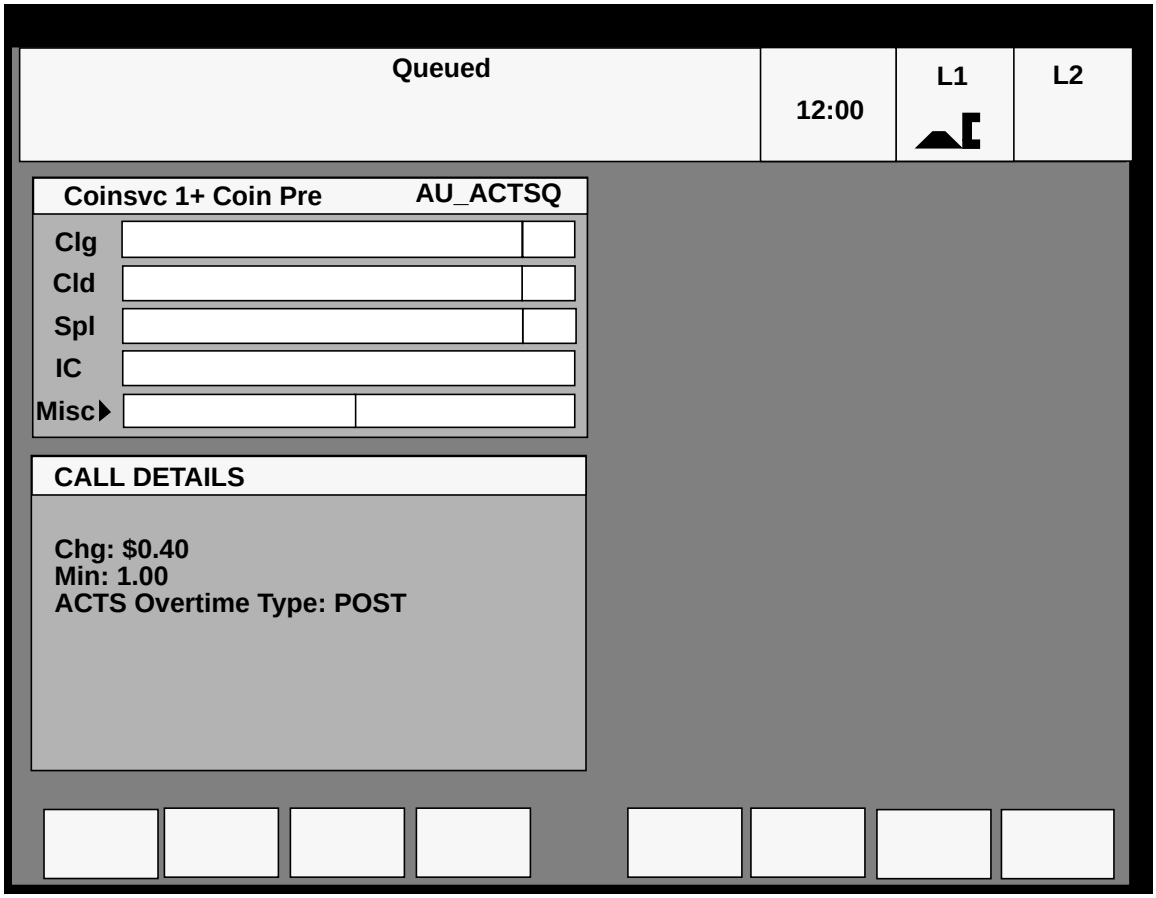


Figure 5-38 Waiting in queue for assistance

While waiting in queue for assistance, the operator has three options:

- Wait for a CSE to become available
- Cancel the assistance request by pressing **Fncts + Release Operator + Start**
- Release the call to the queue by pressing Pos Rls.

DA calls are an exception to this rule. If a DA call is present and the operator has not selected a listing, the call can be released to queue as described above. However, if a listing has been selected before requesting assistance, the operator either cancels the request or must stay on with the subscriber until connected to the CSE. When a listing has been selected, the DAS interprets Pos Rls as a request to end the call and cancel the assistance request.

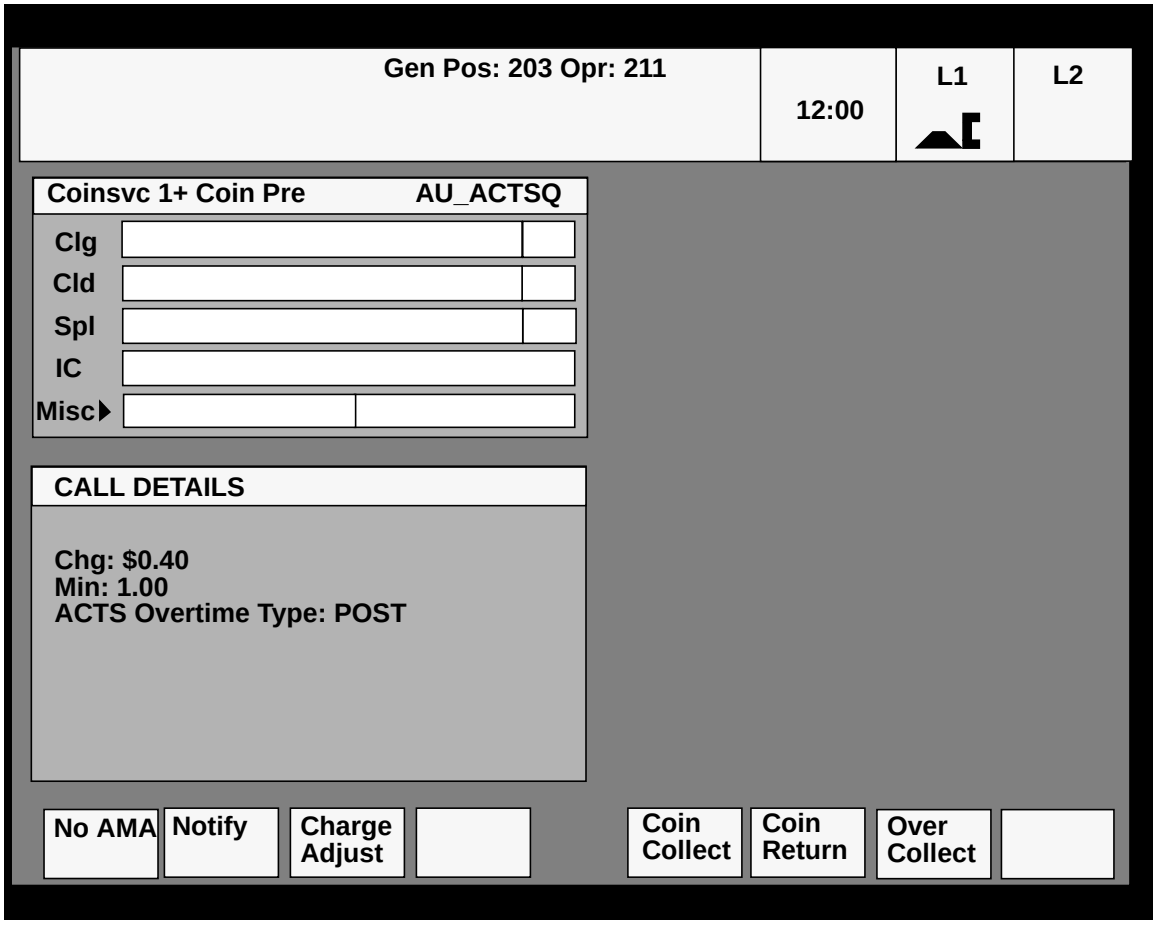


Figure 5-39 Screen of an operator requesting general assistance when connected to a CSE

At this point, the CSE has been connected. Figure 5-39 shows the requesting operator's screen. The two operators are jointly in control of the call. Both operators have the ability to key in information for the call. Since this joint keying capability has the potential to create chaos, it might be necessary to adopt a standard practice for the operator requesting assistance to abstain from keying unless asked to by the CSE.

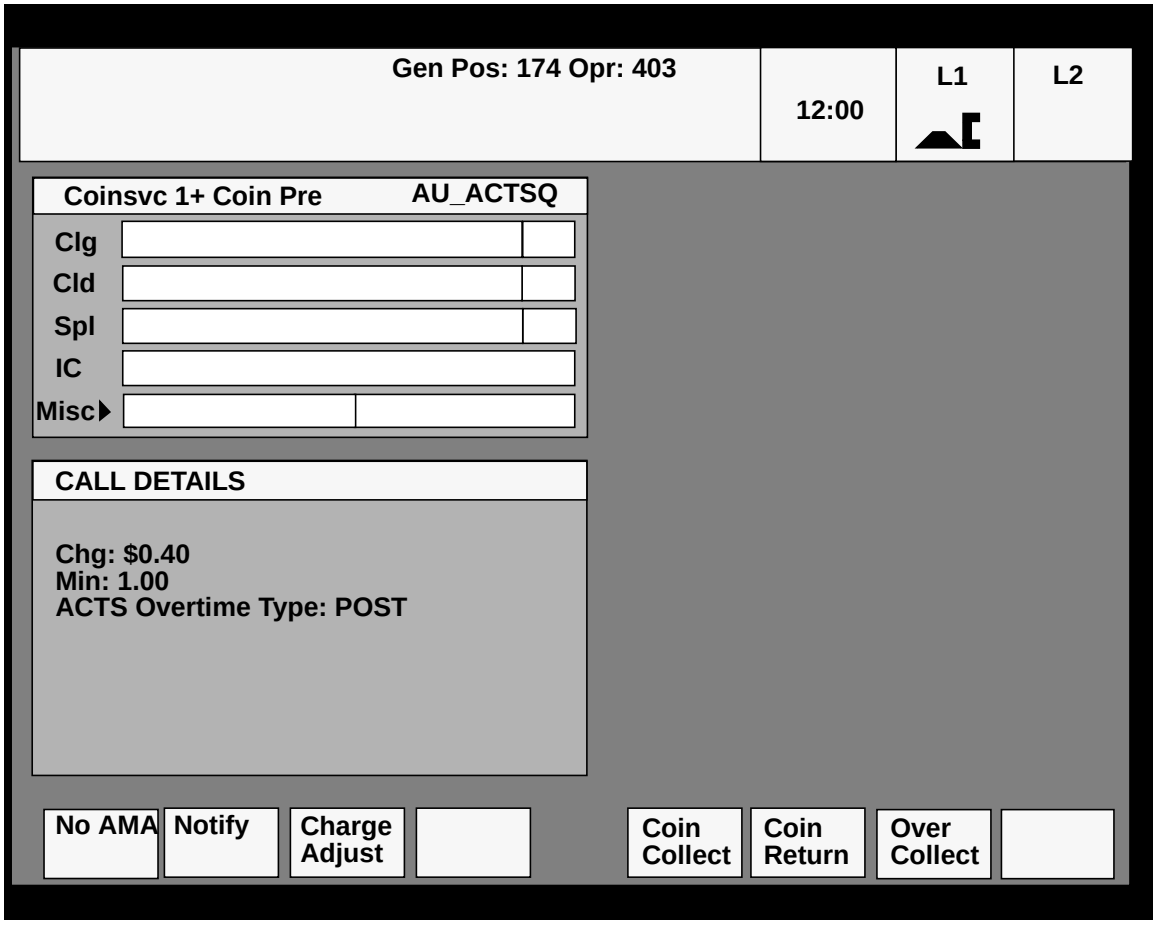


Figure 5-40 Screen of the CSE when connected to the subscriber and the requesting operator

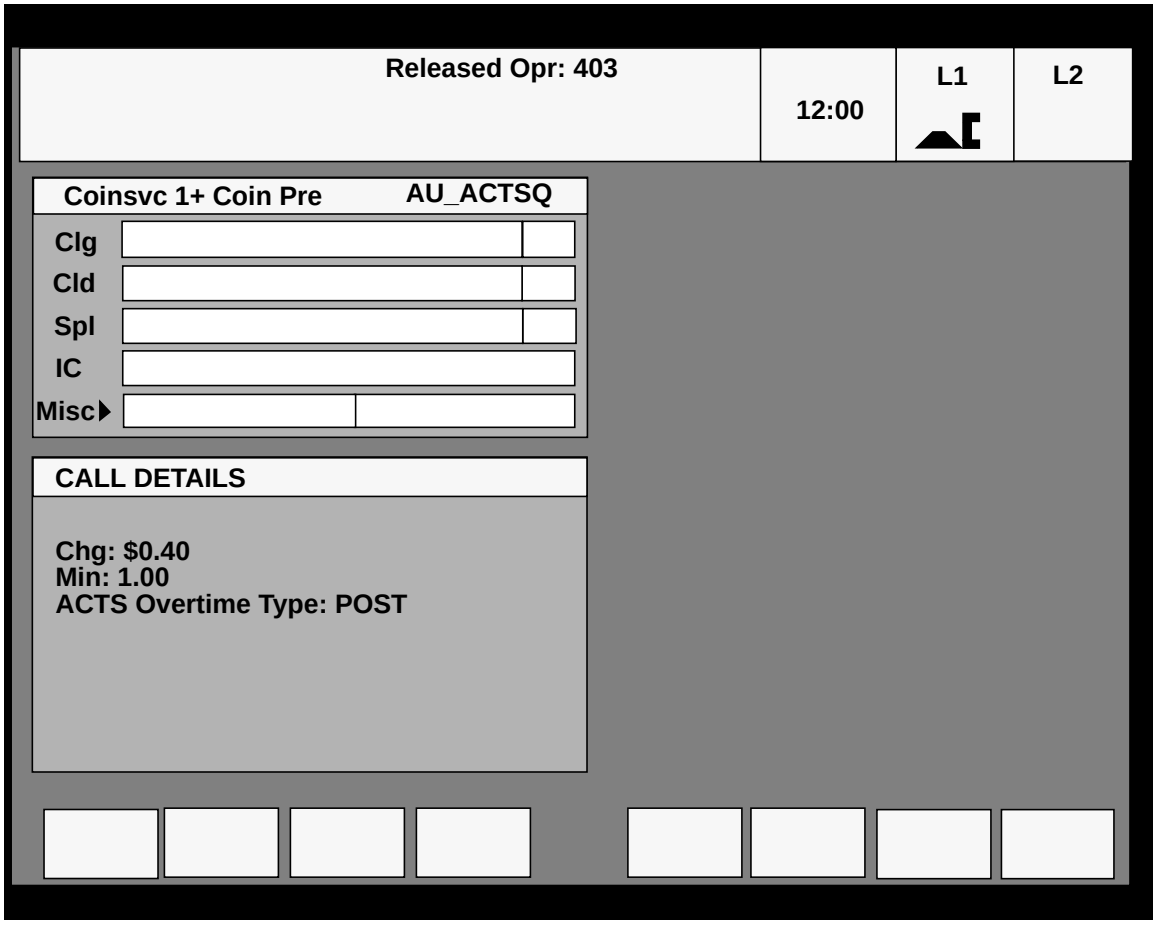


Figure 5-41 Screen of the operator when connected to the subscriber but not the other operator.

While the requesting operator was waiting in queue, that operator pressed Pos Rls and left the call to be handled by the assistance provider. If it becomes necessary to keep track of operators who are abusing this option, this display helps.

This screen (Figure 5-41) can also appear when two operators are connected, and one operator decides to break the connection. The operator wishing to terminate the connection keys Pos Rls or the "Release Operator" function. The remaining operator sees the display.

Directed assistance

The ability to make a directed assistance request to another operator is not restricted to operators with the INTEROPR capability. However, the directed assistance request is successful only if the requesting operator or the receiver of the directed assistance request has the INTEROPR capability. A change from directed assistance with SA/ICs is that directed assistance calls may be made only from an operator-initiated call.

Making a directed assistance request

1. Press **Fncts** + **Withhold Calls** + **Start**. (Not necessary if already idle)

This key sequence puts the operator in the calls-withheld pending state if the operator is currently handling calls.

2. Press **Fncts** + **Access Loop 1** or **Access Loop 2 + Start**. (The operator is free to choose either loop 1 or loop 2).

Directed assistance is available only on operator-initiated calls.

3. Press **Fncts** + **Directed Assistance** + **Start** (Please refer to "Figure 5-61 Fourth page of the functions menu" on page 426.)

4. Type in the position number in the Misc field. (Please refer to "Figure 5-42 Operator entering the directed assistance number in the Misc field" on page 402.)

5. Press **Start**.

If the specified operator is not currently available and does not already have one request waiting, the requesting operator is placed in a queue. "Figure 5-43" on page 403 shows how the screen appears. The requesting operator *does not* hear ringing while waiting in queue with QMS CASE. However, the operator does see the "Queued" display in the message status area.

For Directed Assistance, "Figure 5-44" on page 404 shows how a successful connection appears on the requesting operator's screen. "Figure 5-45" on page 405 shows how it appears on the receiver's screen.

When the conversation is complete, either operator may break the connection by using either pressing the Pos Rls key or the "Release Operator" function.

The Pos Rls key breaks the connection and frees the loops on both of the positions. The "Release Operator" function also breaks the connection and frees the loops on both of the positions. The loop is *not* freed up if the operator has a subscriber on the calling or called ports.

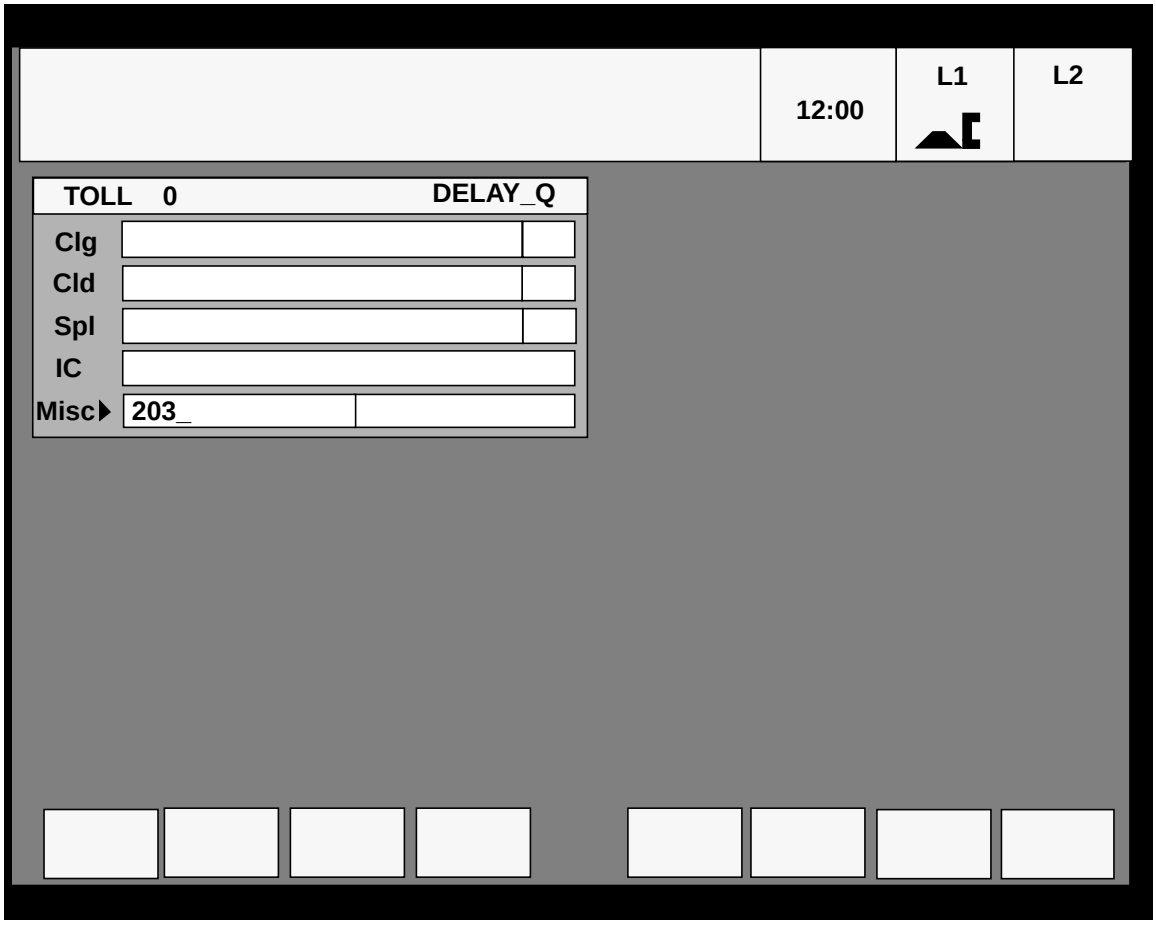


Figure 5-42 Operator entering the directed assistance number in the Misc field

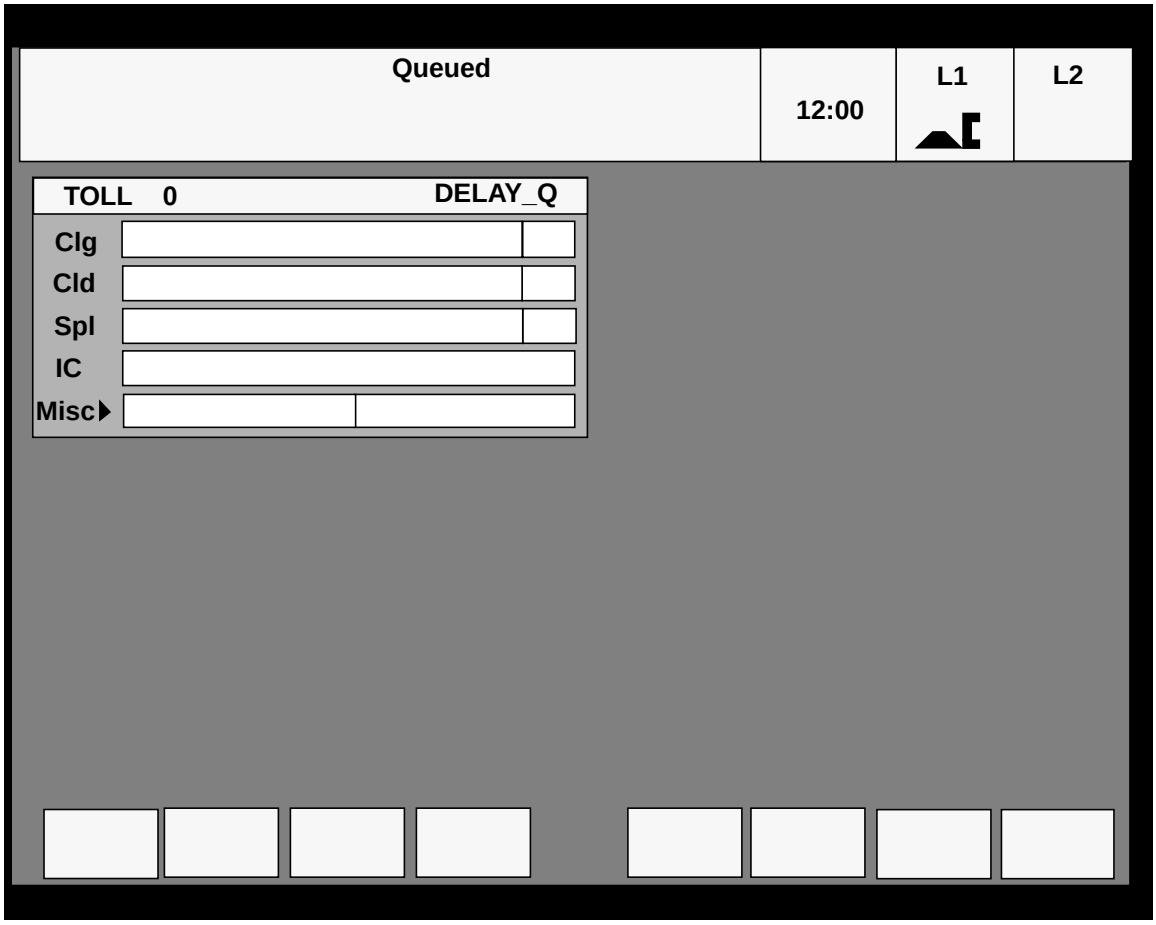


Figure 5-43 Screen of the operator requesting directed assistance while waiting in queue for directed assistance

While the operator is waiting in queue (Figure 5-43) for directed assistance, three options are available:

- Wait for the specified operator to become available.
- Cancel the assistance request by keying **Fncts + Release Operator + Start**. The loop used to initiate the request is freed.
- Cancel the request by pressing Pos Rls. The loop used to initiate the request is freed.

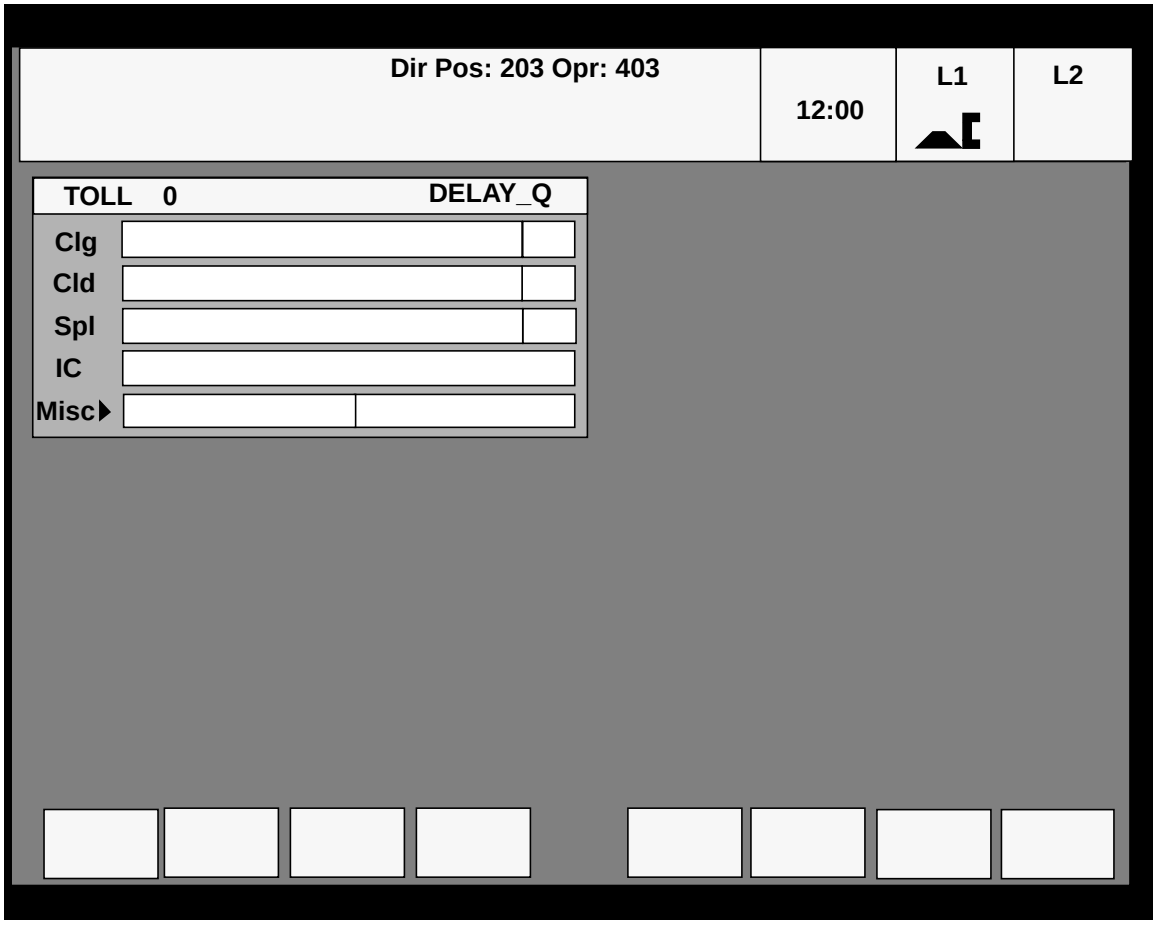


Figure 5-44 Screen of the operator requesting directed assistance when connected to the operator

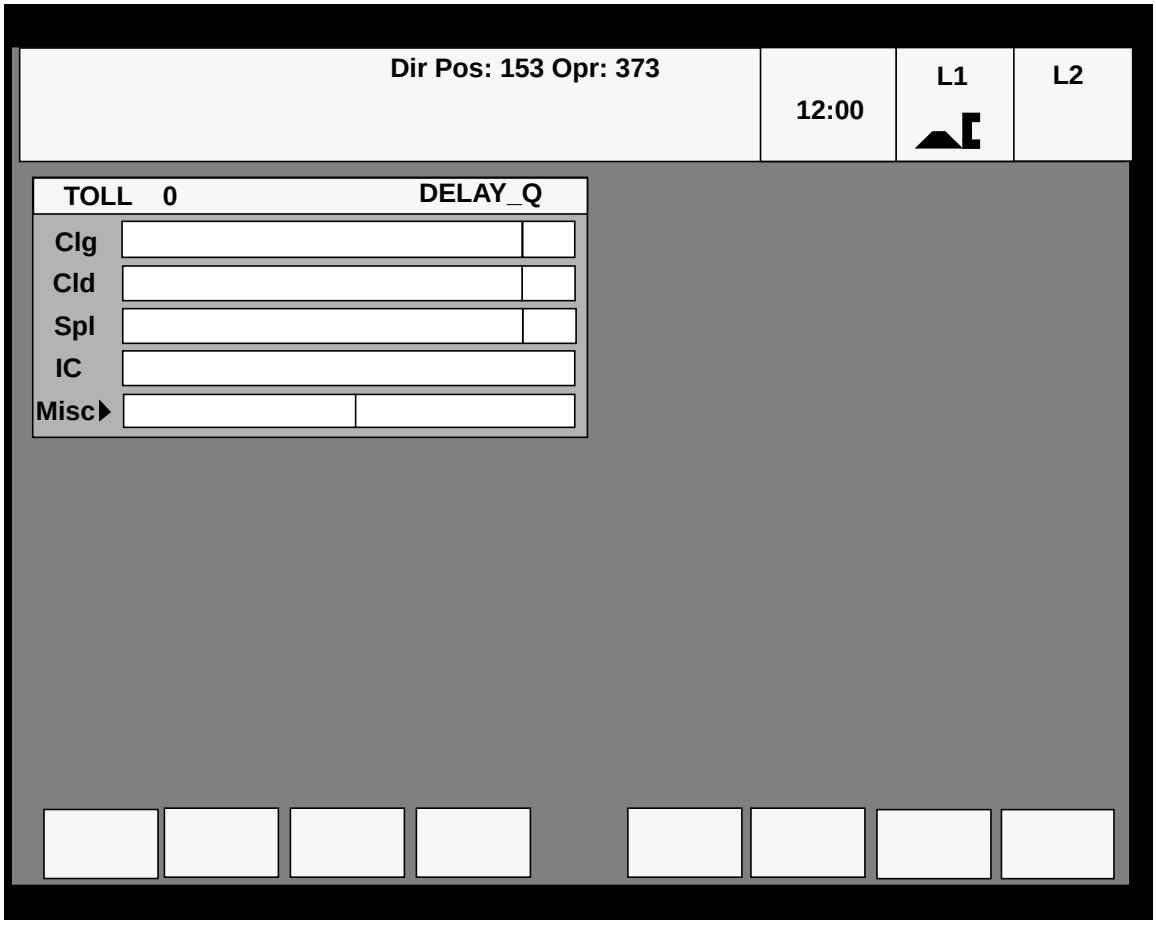


Figure 5-45 Screen of the receiver of the directed assistance request

Paging

The ability to page another operator is not restricted to operators with the INTEROPR capability. However, the page is successful only if the requesting operator or the receiver of the page has the INTEROPR capability.

Paging an operator position

1. Press **Fncts** + **Page Operator + Start** or **Fncts + Page Position + Start** (Please refer to “Figure 5-61 Fourth page of the functions menu” on page 426.)

2. Enter the position or operator number in the Misc field. “Figure 5-46” on page 407

3. Press **Start**.

A page can fail for several reasons. If it does, a transient error message appears, “Figure 5-47” on page 408. For a Page Position, “Figure 5-48” on page 409 shows how a successful page appears on the requesting operator’s screen. For a Page Operator, “Figure 5-49” on page 410 shows how a successful page appears on the requesting operator’s screen. “Figure 5-50” on page 411 shows how both Page Position and Page Operator appear on the page recipient’s screen.

Cancelling an existing page

Press **Fncts** + **Page Operator + Start** or **Fncts + Page Position** + **Start**.

Responding to a Page

1. Press **Fncts** + **Withhold Calls** + **Start**. (necessary only if the position is not idle)

This key sequence puts the operator in the calls-withheld pending state if the operator is currently handling calls. As soon as that call is released, no further calls arrive. If the position does not have a call, this key sequence puts the position in the calls-withheld state immediately.

2. Press **Fncts** + **Access Loop 1 + Start** or **Fncts + Access Loop 2** + **Start**.

This key sequence creates an operator-initiated call to connect to the paging operator.

3. Press **Fncts** + **Paged Assistance** + **Start**

or press **Fncts** + **Directed Assistance** + **Start** + <position number> + **Start**

Although the last method works, the first method may be preferred because of the fewer keystrokes involved.

If the paging position is in the calls-withheld state before the paged position can respond, the Paged Assistance request is ignored.

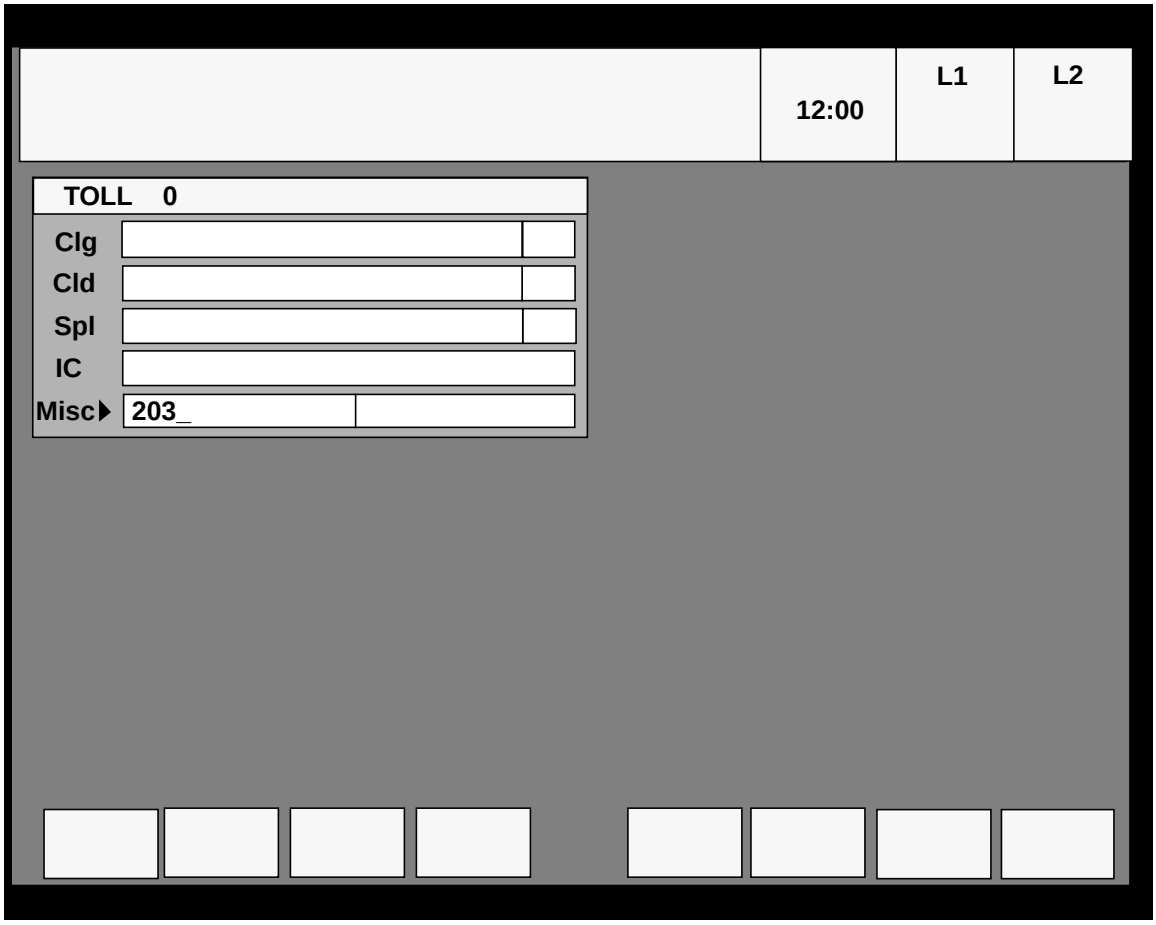


Figure 5-46 Operator entering the position or operator number in the Misc field for a page

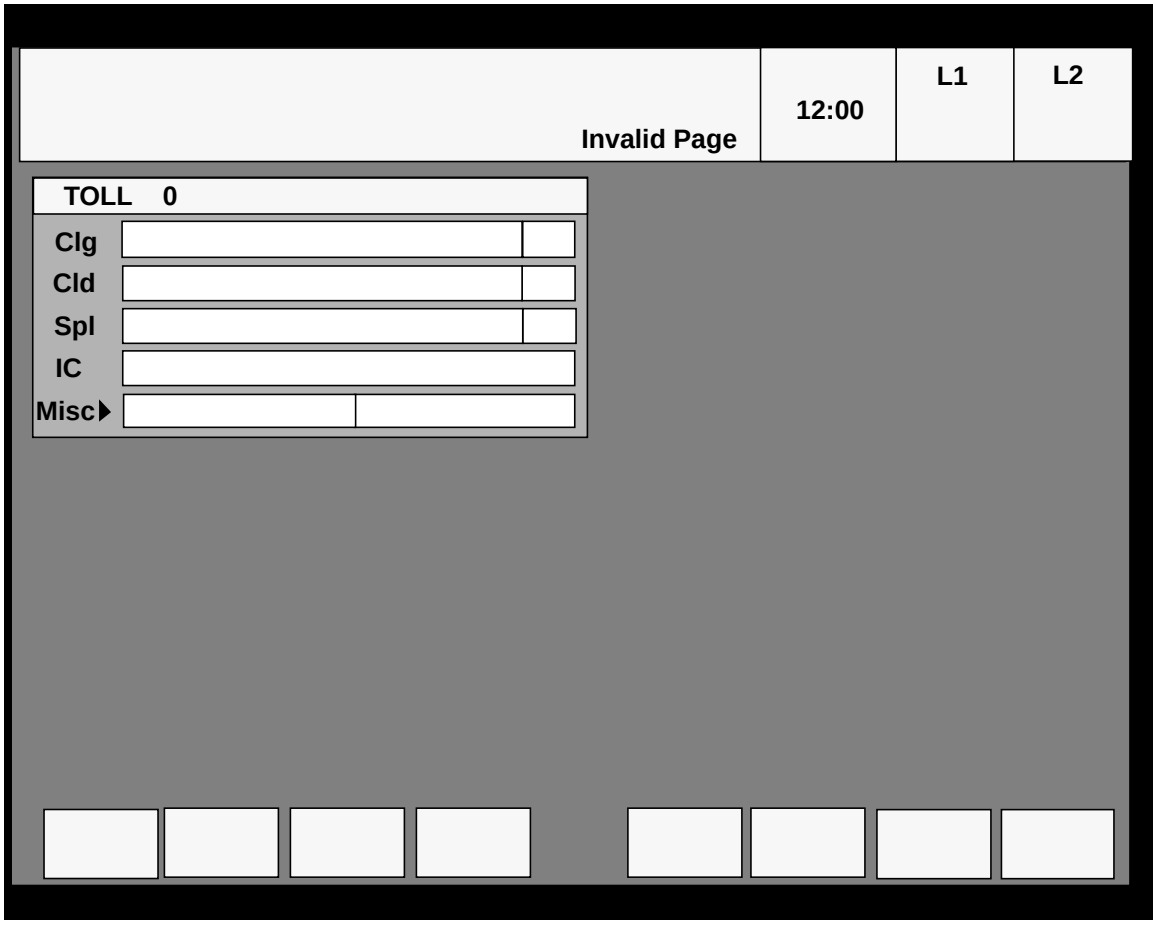


Figure 5-47 Result of attempting an illegal Page Position or Page Operator

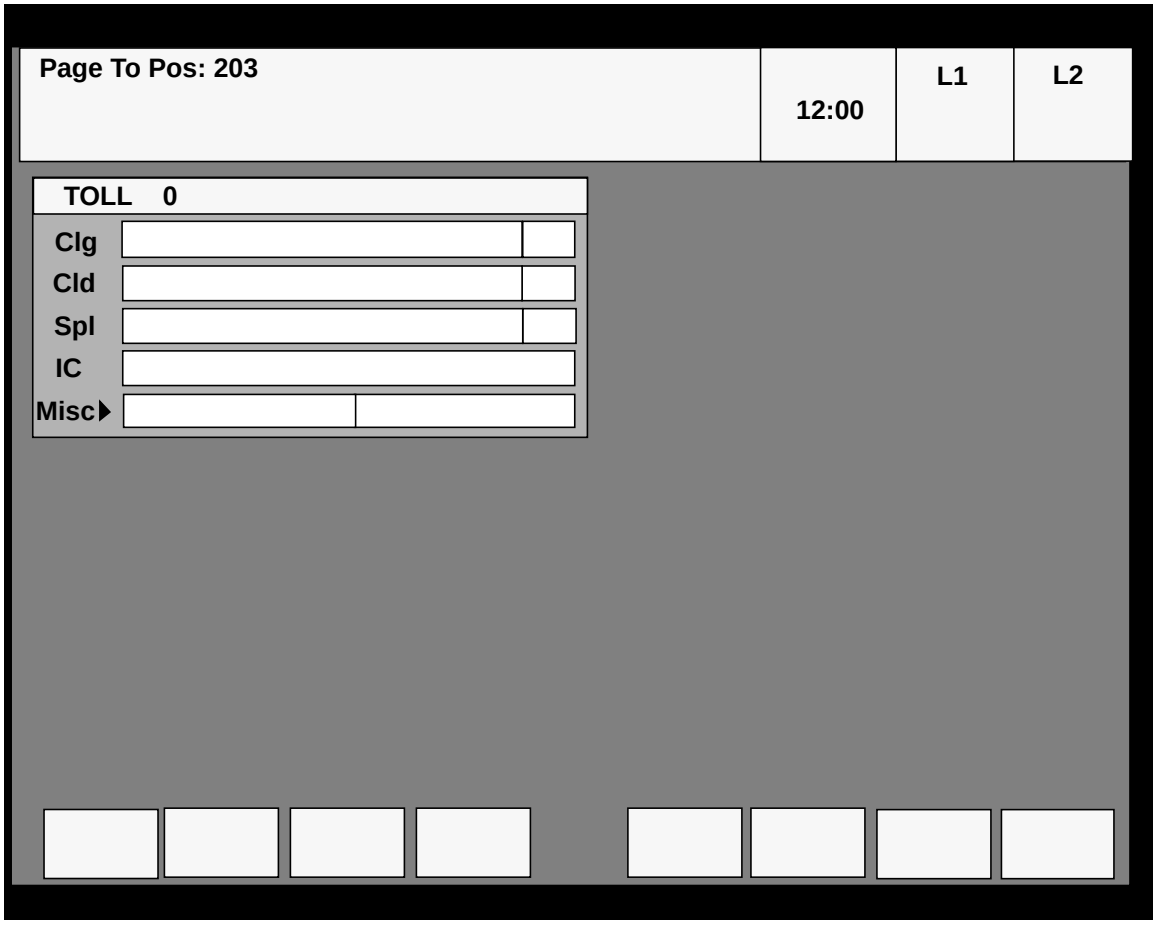


Figure 5-48 Screen of the paging operator after a Page Position is successful

In the left side of the top line in the message status area (Figure 5-48), the term “Page To Pos: xxxx” denotes that this operator has paged another operator. This display is a visible indicator that the page was successful. This message and the following “Page To Opr: yyyy” (Figure 5-49) can be overwritten by a “Page From Pos: xxxx” if this operator is paged. When this operator responds to this page, the “Page To Pos” or “Page To Opr” message are redisplayed, if appropriate.

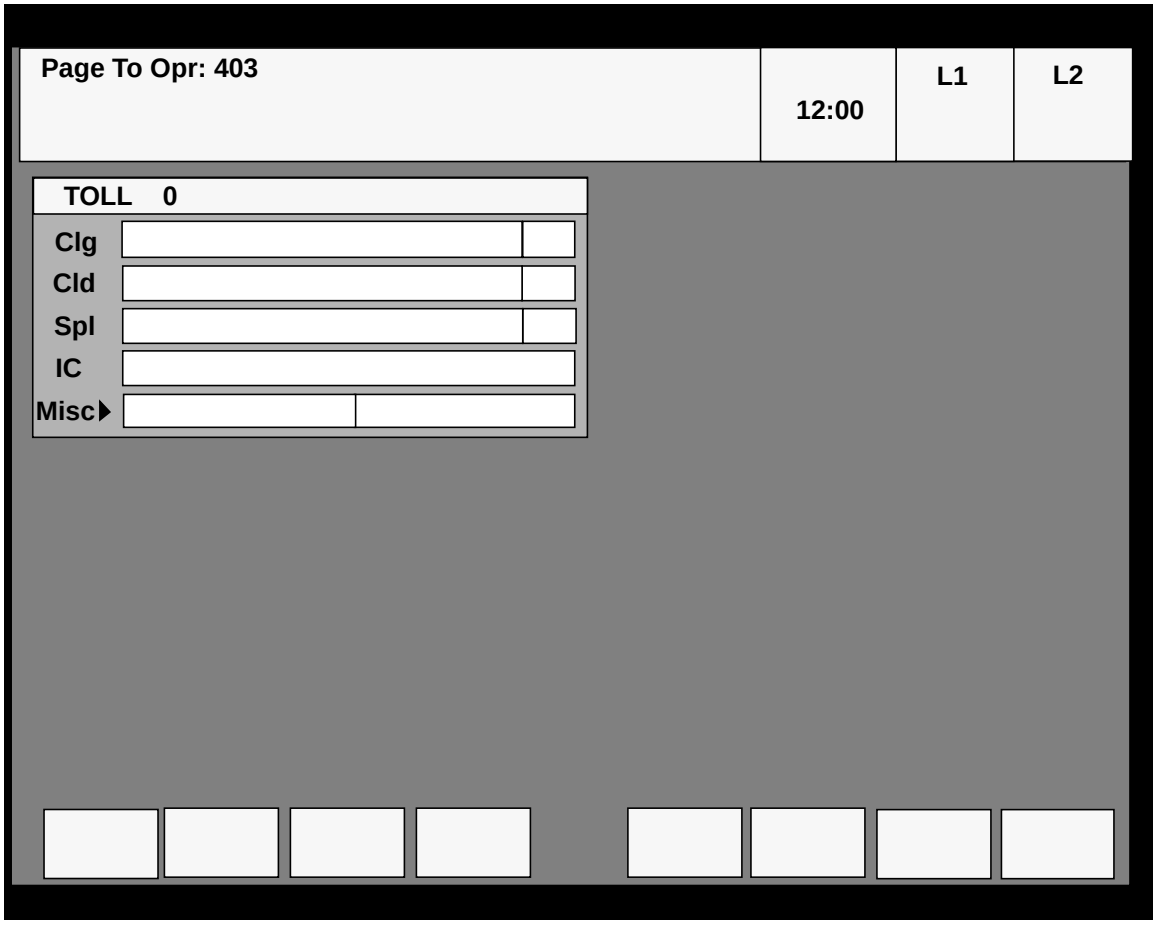


Figure 5-49 Screen of the paging operator after a Page Operator is successful

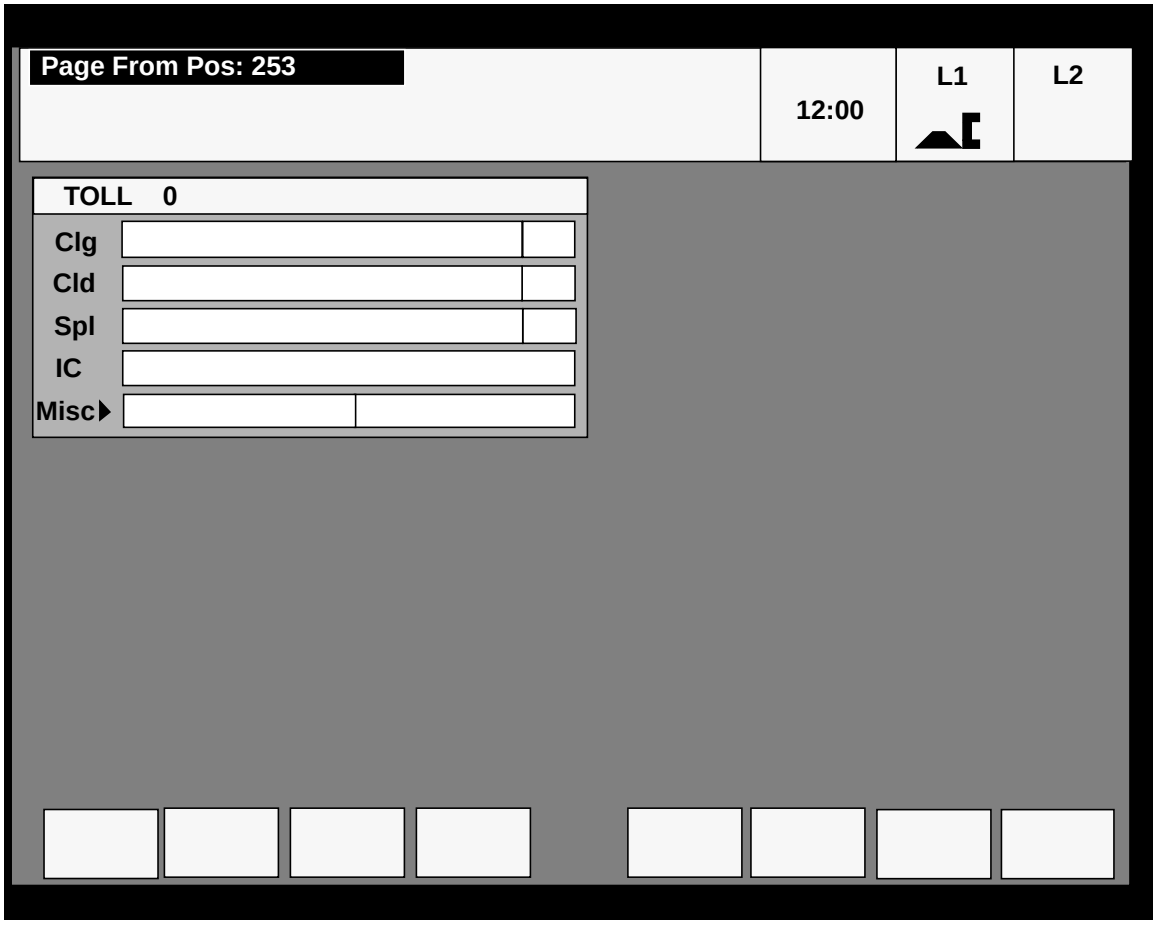


Figure 5-50 Screen of the paged operator

The term “Page From Pos: xxxx” appears in the left side of the top line in the message status area of the paged operator’s screen (Figure 5-50). This term denotes that the operator received a page from the specified position and needs to respond to the page.

Monitoring

The ability to monitor another operator’s position is limited to operators possessing the MON capability. The system ignores attempts to monitor by operators who do not have the MON capability.

Monitoring an operator position

1. Press **Fncts** + **Withhold Calls** + **Start**.

This key sequence puts the operator in the calls withheld pending state if the operator is currently handling a call. As soon as the call is released, the position goes into a calls withheld state and no further calls will arrive at the position. If the position does not currently have a call, this key sequence puts the position in the calls withheld state immediately.

2. Next press **Fncts** + **Monitor Position + Start or Fncts + Monitor Operator** + **Start**. (For more information see “Fourth page of the functions menu” on page 426.)

3. Type in the position or operator number in the Misc field see “Figure 5-51” on page 413.

4. Press **Start**.

“Figure 5-52” on page 414 shows a monitoring operator’s screen after Start has been pressed. The monitored’s operator and position number is showin in the MSA. Conversely, “Figure 5-53” on page 415 the same monitoring operators’ screen after the operator has pressed the “Hide MonID” softkey.

During a monitoring session, an operator with the QINFO or STATS capability is able to see the Team/Office Information window (TOI). So if an alarm is activated, the Sonalert’s beeping alerts the CSE to the problem. The operator may use the “Stop Bell” softkey to stop the beeping.

When a CSE with STATS and/or QINFO, is monitoring a CSE operator who has STATS and/or QINFO, the CSE operator who is doing the monitoring, will receive his/her STATS and/or QINFO as well as the monitored operator’s STATS and/or QINFO. This might be confusing for the monitoring operator when these operators are in different teams and the STATS for each of teams are being displayed on the monitoring operator’s screen.

The MON capability is similar to the functionality available under SA/IC. The operator being monitored is unaware of the monitoring session unless the CM tuple TOPS_DISPLAY_MON in table OFCVAR is set to “yes”. “Figure 5-54” on page 416 shows a monitored operator screen monitored when TOPS_DISPLAY_MON has been set to “yes”.

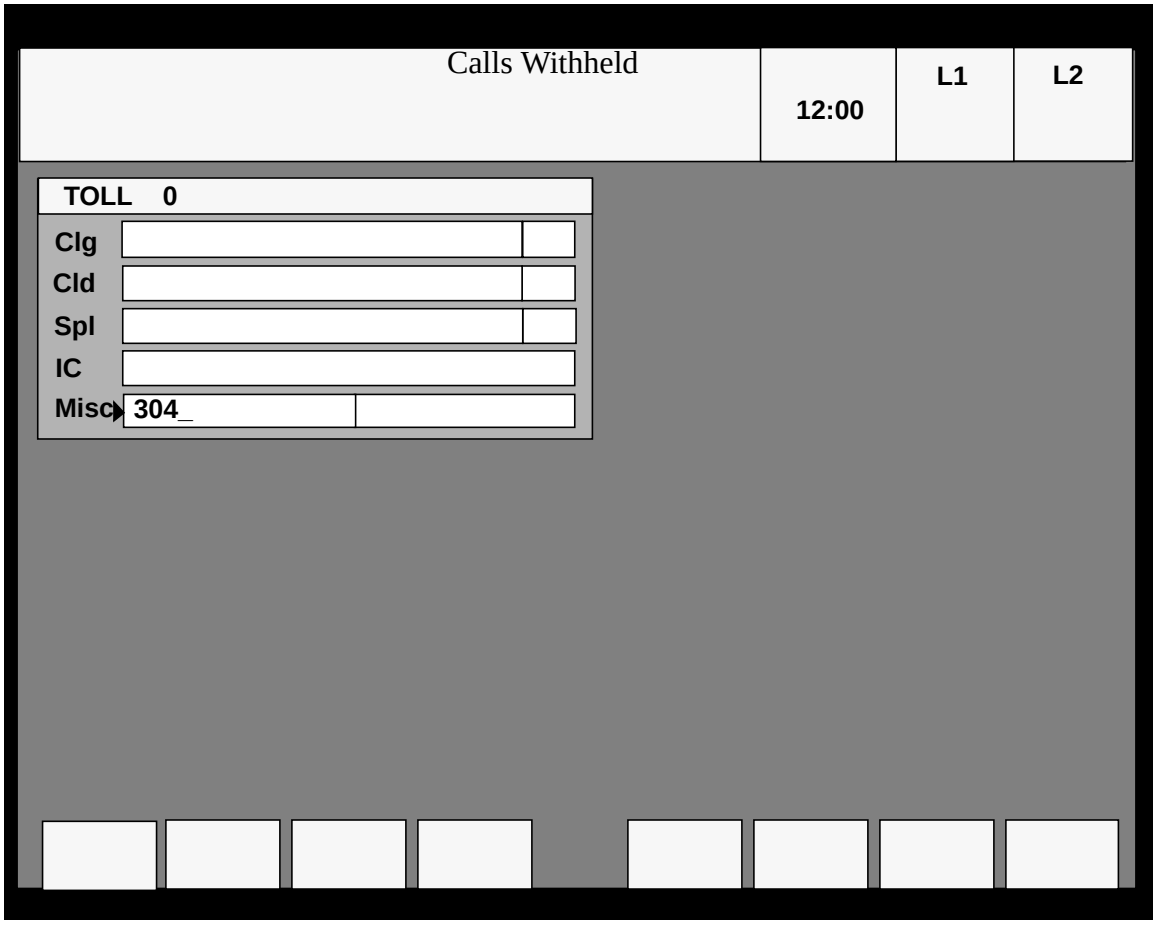


Figure 5-51 Appearance of the screen while entering either the operator or position number to be monitored

After entering the operator number or position number to be monitored (Figure 5-51), the operator should terminate the entry with Start. At this point, the position begins to display screen updates from the monitored position.

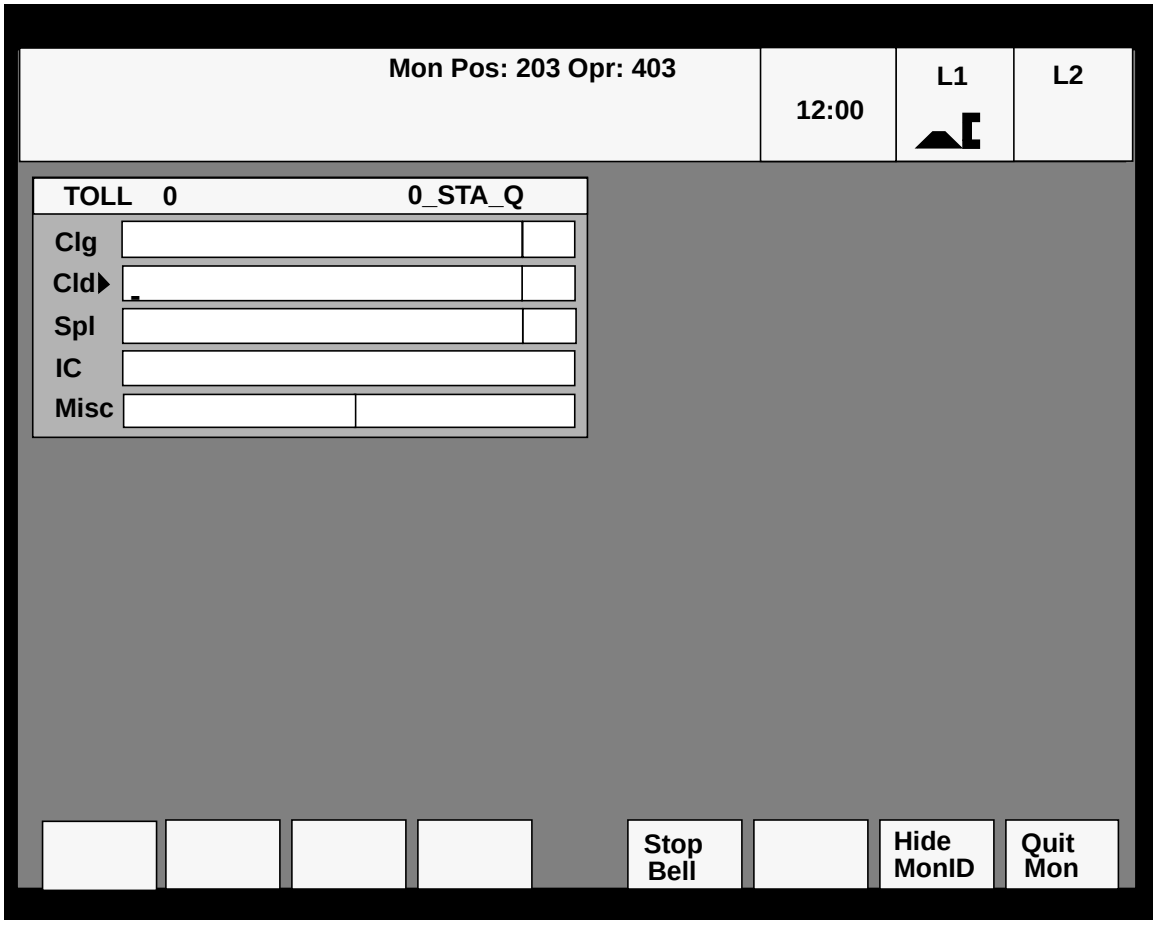


Figure 5-52 Screen of the monitoring terminal with the monitored position displayed.

While this display is active, broadcast messages are prevented from appearing. To remove this display, the operator can press the “Hide MonID” softkey (Figure 5-52).

Messages from the monitored position such as “Gen Pos: xxxx Opr: yyyy” may appear in this field as well. These messages will cause an automatic Hide MonID to occur, removing the existing monitored position display. **To redisplay the “Mon Pos: xxxx Opr: yyyy”, the operator need only press the “Show MonID” softkey.**

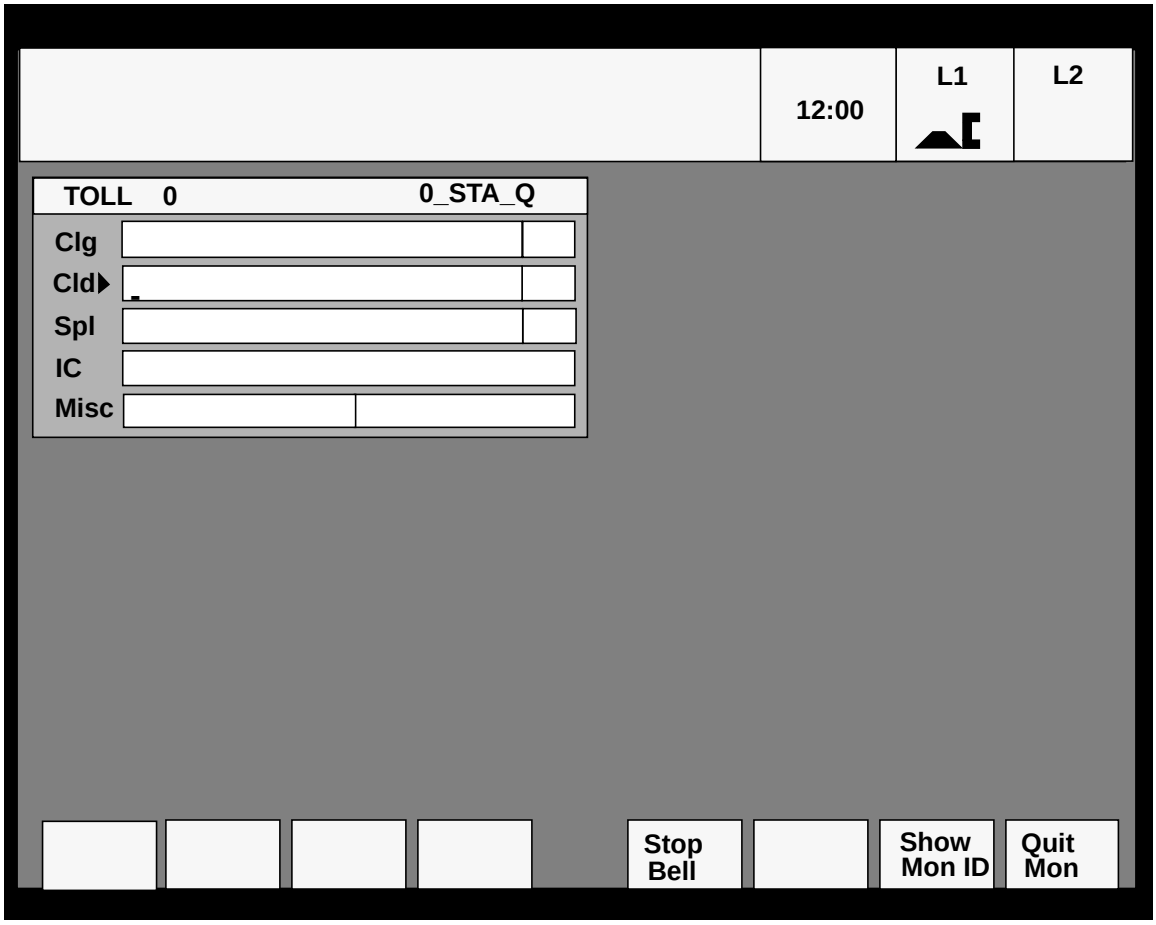


Figure 5-53 Screen of the monitoring terminal with the monitored position identification hidden

Here the “Hide MonID” softkey is replaced with the “Show Mon ID” softkey (Figure 5-53). Pressing the “Show MonID” softkey causes a toggle back to the screen seen in Figure 5-52.

During a monitoring session, if either the monitoring or monitored operator has the STATS or QINFO capability, the local Sonalert may sound if an alarm or queue warning condition arises. The operator may press the “Stop Bell” softkey to stop the beeping.

To exit the current monitoring session, the operator must press the “Quit Mon” softkey. If the operator has STATS or QINFO, the Team/Office Information window will be refreshed to insure that the information is correct. (Stats and Qinfo from the monitored position could have corrupted it)

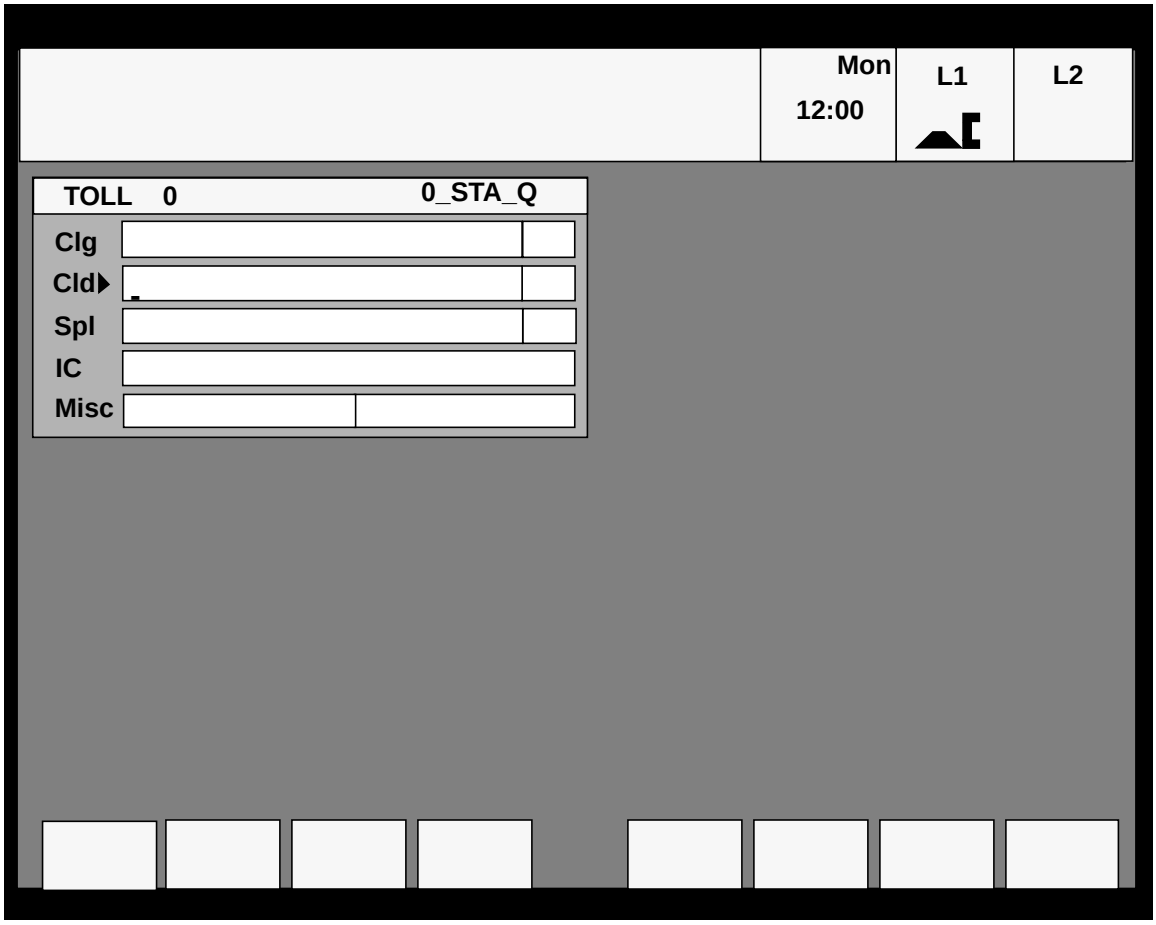


Figure 5-54 Screen of the monitored terminal with TOPS_DISPLAY_MON set to “yes”

The operator being monitored receives notice of the monitoring session only if the CM tuple TOPS_DISPLAY_MON in table OFCVAR is set to “yes”. In that case, the operator sees the “Mon” display in the top line of the message status area (Figure 5-54). Otherwise, the operator receives no notification of the monitoring session.

Team/office information

The displays of the STATS capability are found in the Team/Office Information (TOI) window. This window is displayed on the right side of the MP screen. It is analogous to the “Assistance” and “In charge” windows found on SA/IC positions.

The TOI window is displayed automatically on all Toll screens and DA billing screens as long as no other window is trying to use the same area. Office alarm conditions appear in the upper portion of the TOI window. This area is shared with the QINFO warnings. The lower portion of the TOI window is reserved for team (position and operator) information. (Figure 5-55)

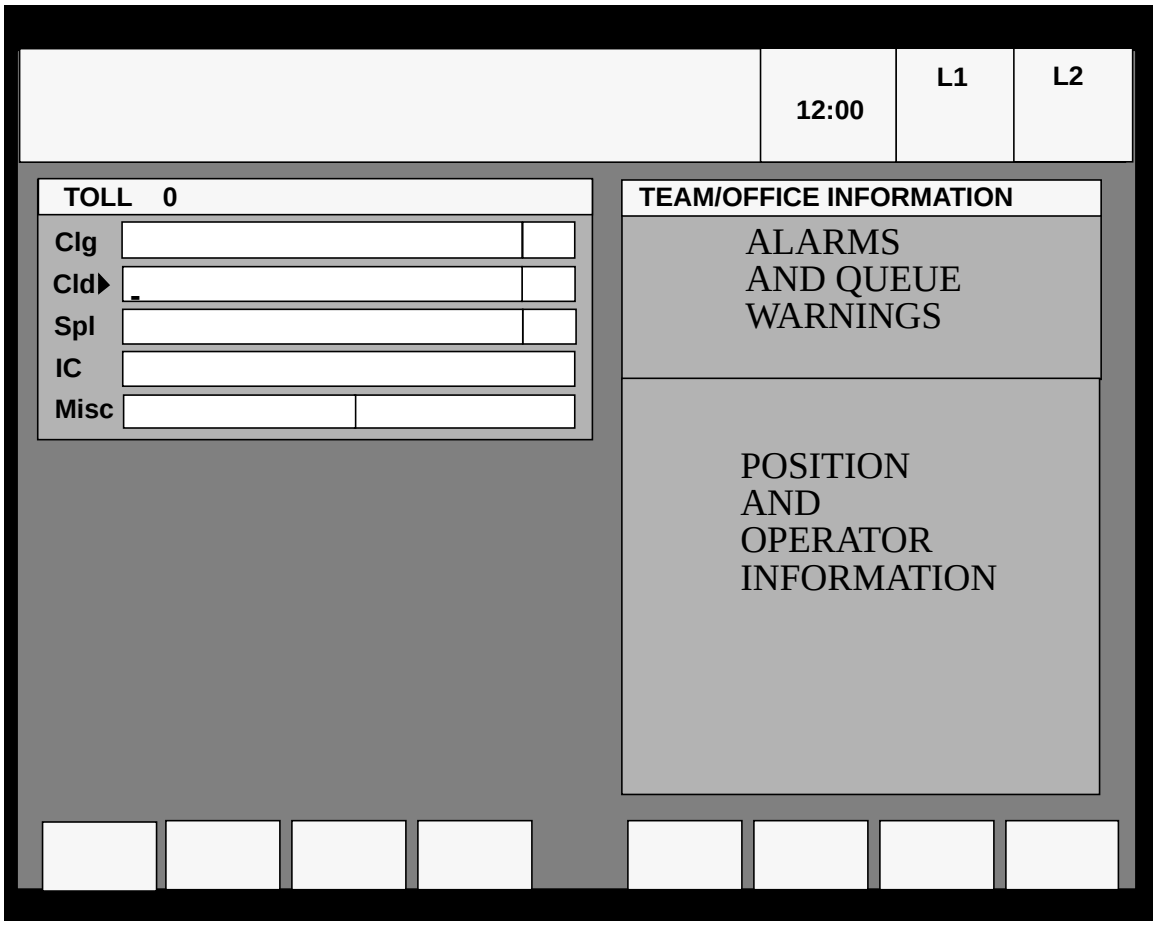


Figure 5-55 Location of the Team/Office Information window.

Alarms condition notification

The ability to receive alarms is limited to operators possessing the STATS capability. Table 5-154 lists the two alarms, their MP display text, and their meanings.

The two office alarm displays are located in the upper portion of the Team/Office Information window, as shown in “Figure 5-56” on page 419. The local Sonalert is activated, if it is enabled on the position.

To turn the audible alarm off, the operator should select the “Stop Bell” function from the functions menu[1]. (For more information see “Fourth page of the functions menu” on page 426.) After the sonalert has been silenced, the operator may want to goto the calls withheld state to deal with the alarm condition.

If an alarm condition stops before the operator is able to silence the bell, the sonalert is deactivated and the string is removed from the Team/Office Information window.

Each new alarm or queue warning activates the sonalert. If several alarms and/or queue warnings are active at the same time, the sonalert is automatically silenced only when all of the conditions cease. (The operator can of course stop the sonalert at any time with the stop bell function.)

During an ORDB session, the Team/Office Information window is not updated. At some points in an ORDB session, all or part of the Team/Office Information window may be visible. If an alarm condition arises at this point, the sonalert is activiated. However, to actually see the alarm text in the Team/Office Information window, the operator must quit the ORDB session. When the session has been quit, the Team/Office Information window is presented with the updated values.

During monitoring, the alarms could be for either the monitoring or the monitored operator. For more information see “Monitoring” on page 411.

[1]The reader is reminded that any function in the functions menu can also be located on a hardkey. With the definable keyboard, a hardkey can be assigned to any key, so the “Stop Bell” function could be invoked with only one keystroke if desired.

Table 5-154 STATS alarms, displays and their meanings

Alarm	MP Display	Meaning
Operator Services Suspended	"CAMA Suspended"	Indicates that no calls are being routed to operator positions. (Depending on call characteristics and on the value of OFCVAR parm CAMA_SUSP_CALL_ALLOWED, calls may be either routed to treatment or completed without billing when operator services are suspended.)
All T&C OD	"All T&C Pos OD"	All datafilled Time and Charges devices in the office are out of service. This alarm does not occur if there are no datafilled Time and Charges devices.

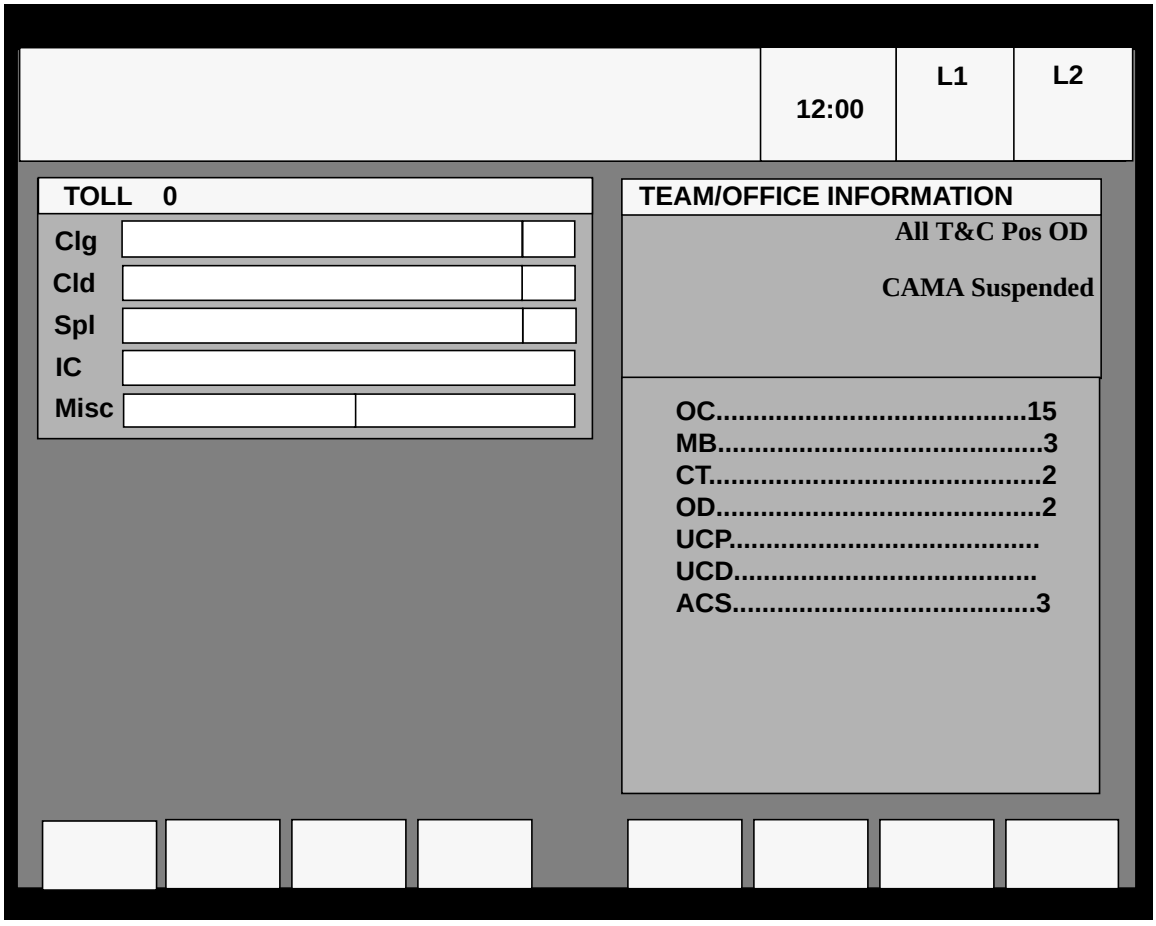


Figure 5-56 Location of the two office alarm displays in the Team/Office Information window

Query of position and operator information

The ability to query the status of the team is limited to operators possessing the STATS capability. Attempts to query without the STATS capability are ignored.

Operators who wish to find out specific operator IDs or positions numbers for the information presented in the TOI window, for example, “Figure 5-57” on page 421, may want to get into the calls withheld state first.

Querying of position or operator state

1. Press **Fncts** + **Withhold Calls** + **Start**.

This key sequence puts the operator in the calls withheld pending state if the operator is currently handling a call. As soon as the call is released, the position goes into a calls withheld state and no further calls will arrive at the position. If the position does not currently have a call, this key sequence puts the position in the calls withheld state immediately.

2. Press **Fncts** + **Query Stats** + **Start**. (For more information see “Fourth page of the functions menu” on page 426.)

For example, an operator may be interested in finding the position numbers of positions in the make-busy state. (In the TOI window, this is “MB”, and in the example in Figure 5-57 there are three in this state.) So from the new set of softkeys displayed (“Figure 5-58” on page 422) the operator keys “Query MB”.

“Figure 5-59” on page 423 shows the three busy positions appearing on the left side of the screen in a new “MB” window. The “Erase” function may then be used to clear this “MB” window.

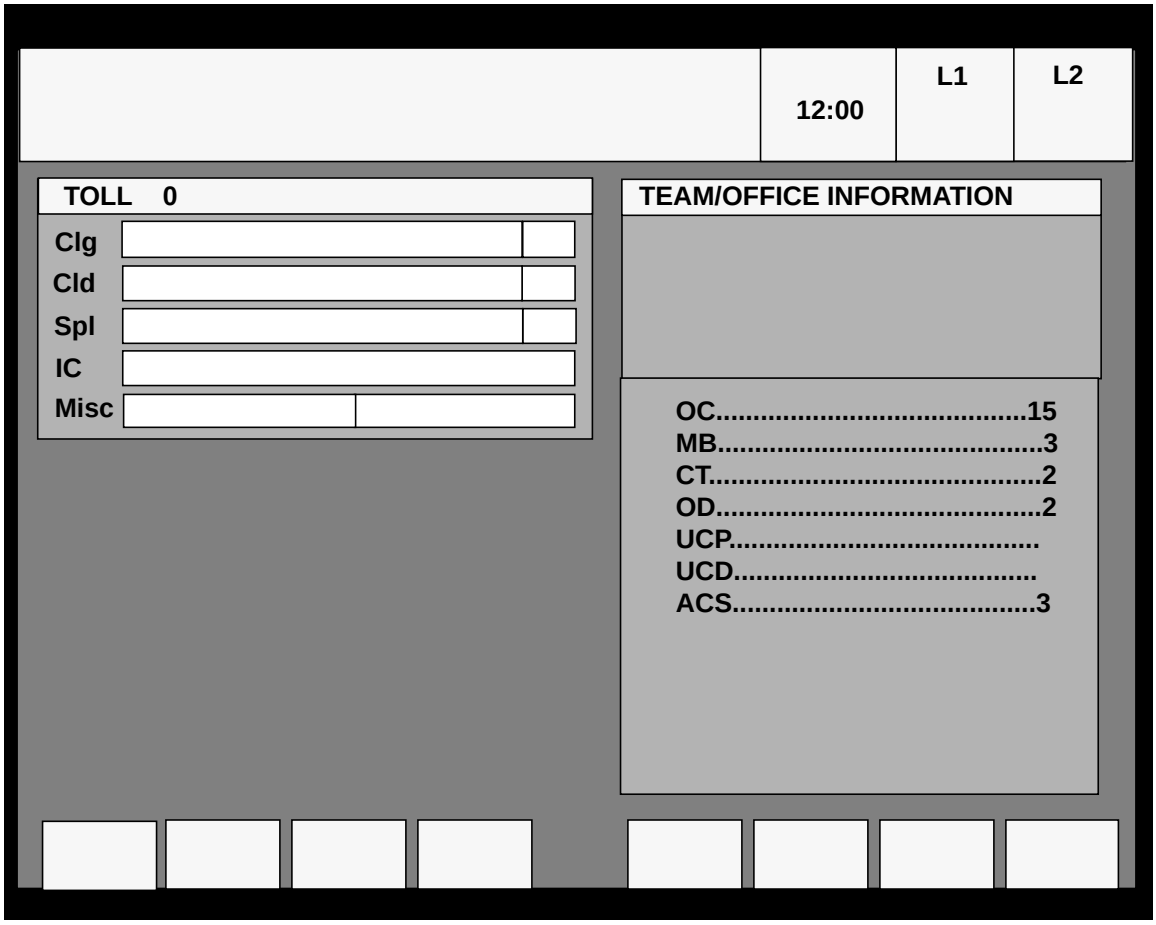


Figure 5-57 Team/Office Information window with the some of the stats containing sample values.

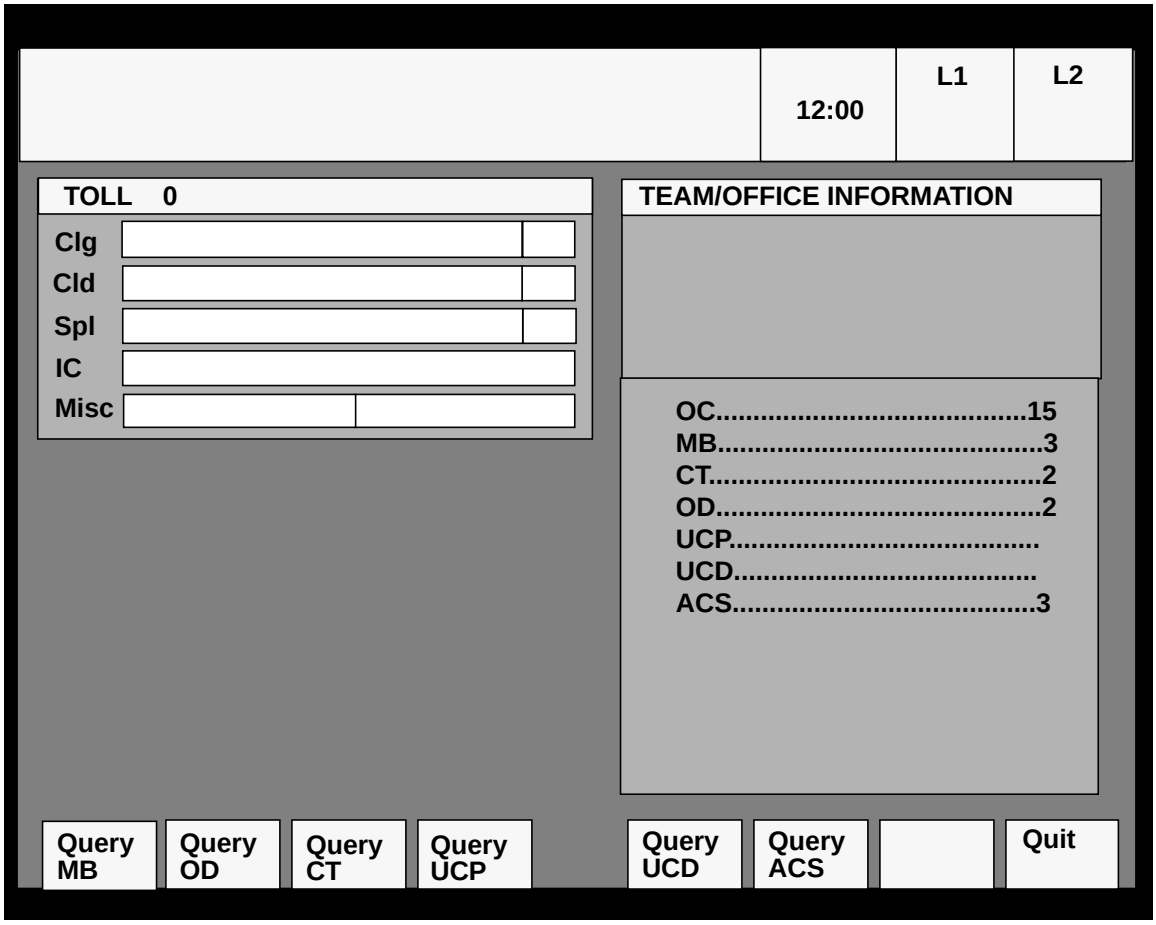


Figure 5-58 The query softkeys

With the new set of softkeys presented (Figure 5-58), the operator chooses “Query MB” and is presented with a window containing a list of all positions in the team that are in the ‘MB’ state.

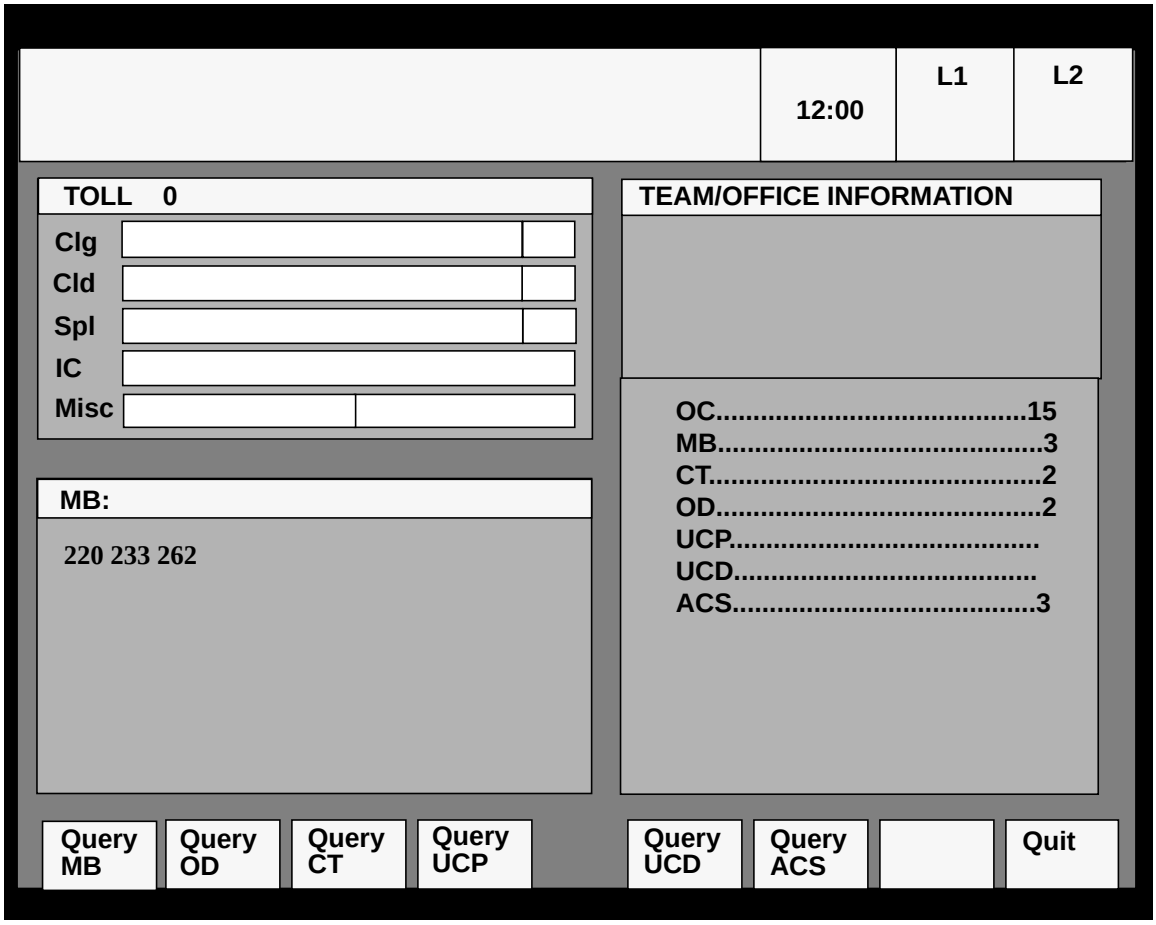


Figure 5-59 Result of selecting the "Query MB" softkey

The "MB" window contains a list of all positions currently in the make-busy state (Figure 5-59). As long as the query softkeys are present, additional queries may be made. To quit out of this query mode, the operator presses the "Quit" softkey. To remove any of the query windows, the operator may enter the "Erase Stats" from the functions menu.

Queue status warning condition notification

The ability to receive queue warnings is limited to operators possessing the QINFO capability. Table 5-155 lists the warnings, the expansions of the abbreviations, and the meanings of the warnings.

If any of the warning conditions (QCQ,QCD, or QCW) are detected at the CM, the MP displays the corresponding string in the Team/Office Information window (“Figure 5-60” on page 425). In addition, if either the QCQ or QCD warnings are detected, they cause the position to begin beeping if the Sonalert is enabled on the position. The beeping is terminated either by pressing the “Stop Bell” softkey or by choosing the Stop Bell function.

The operator should select the “Stop Bell” function from the functions menu[1]. (For more information see “Fourth page of the functions menu” on page 426.) After the sonalert has been silenced, the operator may decide to enter the calls withheld state to deal with the queue warning condition.

If a queue warning condition ceases before the operator is able to stop the bell, the sonalert is automatically deactivated and the string is removed from the Team/Office Information window.

Each new alarm or queue warning activates the sonalert. If several alarms and/or queue warnings are active at the same time, the sonalert is automatically stopped only when all of the conditions cease. (The operator can of course silence the sonalert at any time with the stop bell function.)

During an ORDB session, the Team/Office Information window is not updated. At some points in an ORDB session, all or part of the Team/Office Information window may be visible. If QCQ or QCD arises at this point, the sonalert is activated. However, to actually see the queue warning text in the Team/Office Information window, the operator must quit the ORDB session. When the session has been quit, the Team/Office Information window is presented with the updated values. Since QCW does not activate the sonalert, there is no way for the operator to be alerted during an ORDB session.

During monitoring, the queue warnings could be for either the monitoring or the monitored operator. For more information see “Monitoring” on page 411.

The CM updates its internal queue status information whenever queue transactions take place. It sends updated information to positions, if needed approximately every ten seconds.

[1]The reader is reminded that any function in the functions menu can also be located on a hardkey. With the definable keyboard, a hardkey can be assigned to any key, so the “Stop Bell” function could be invoked with only one keystroke if desired.

Table 5-155 Queue status warnings

Warning	Expanded Name	Meaning
QCQ	QMS Calls Queued	Calls have been routed to a QMS call queue not served by any logged-in operator.
QCD	QMS Calls Deflected	Calls have deflected from a QMS call queue.
QCW	QMS Calls Waiting	Call waiting time in a QMS call queue is longer than a threshold datafilled in the CM.

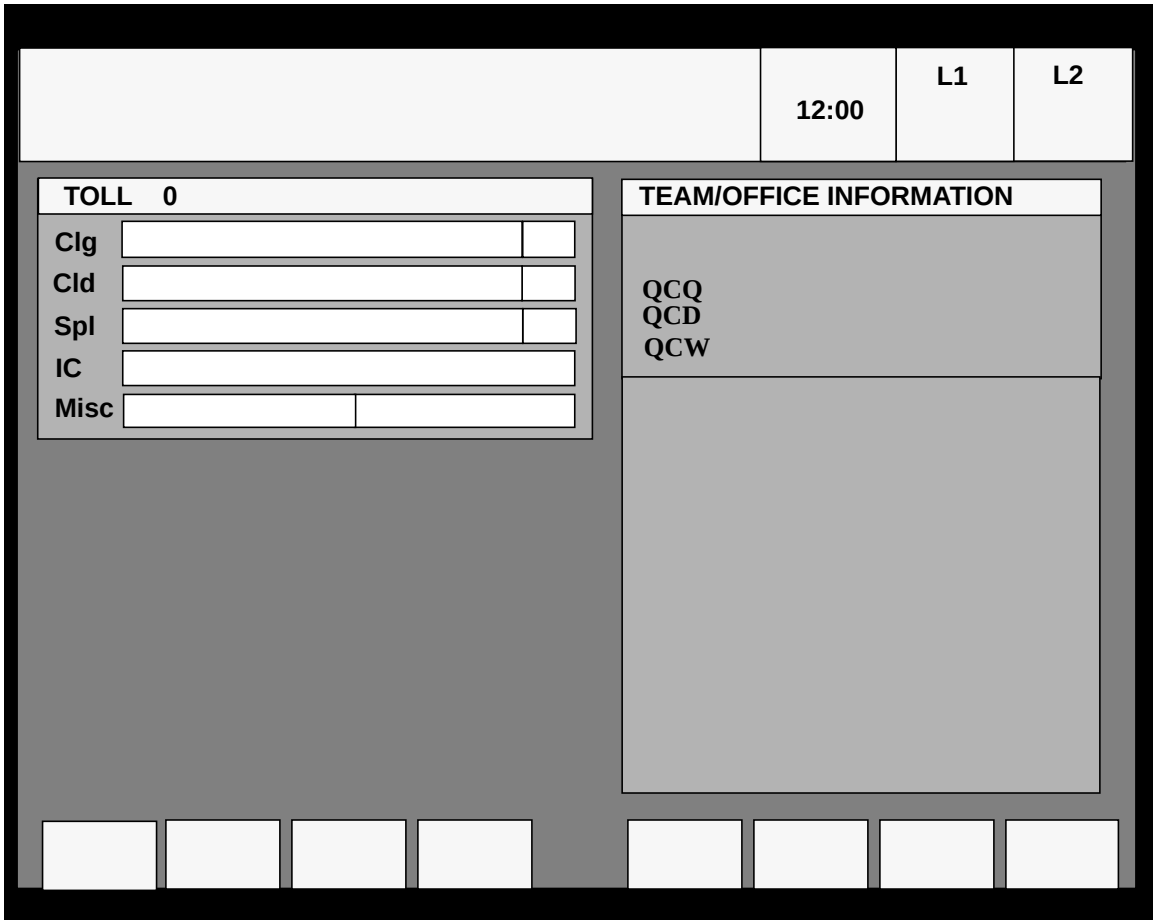


Figure 5-60 Location of the three queue warning displays in the Team/Office Information window

Functions menu

The functions referenced in this feature are available from the functions menu. Figure 5-61 shows the fourth page of the functions menu with the old and new functions present. Table 5-156, “Functions associated with QMS CASE,” on page 427 provides a reference section for the functions.

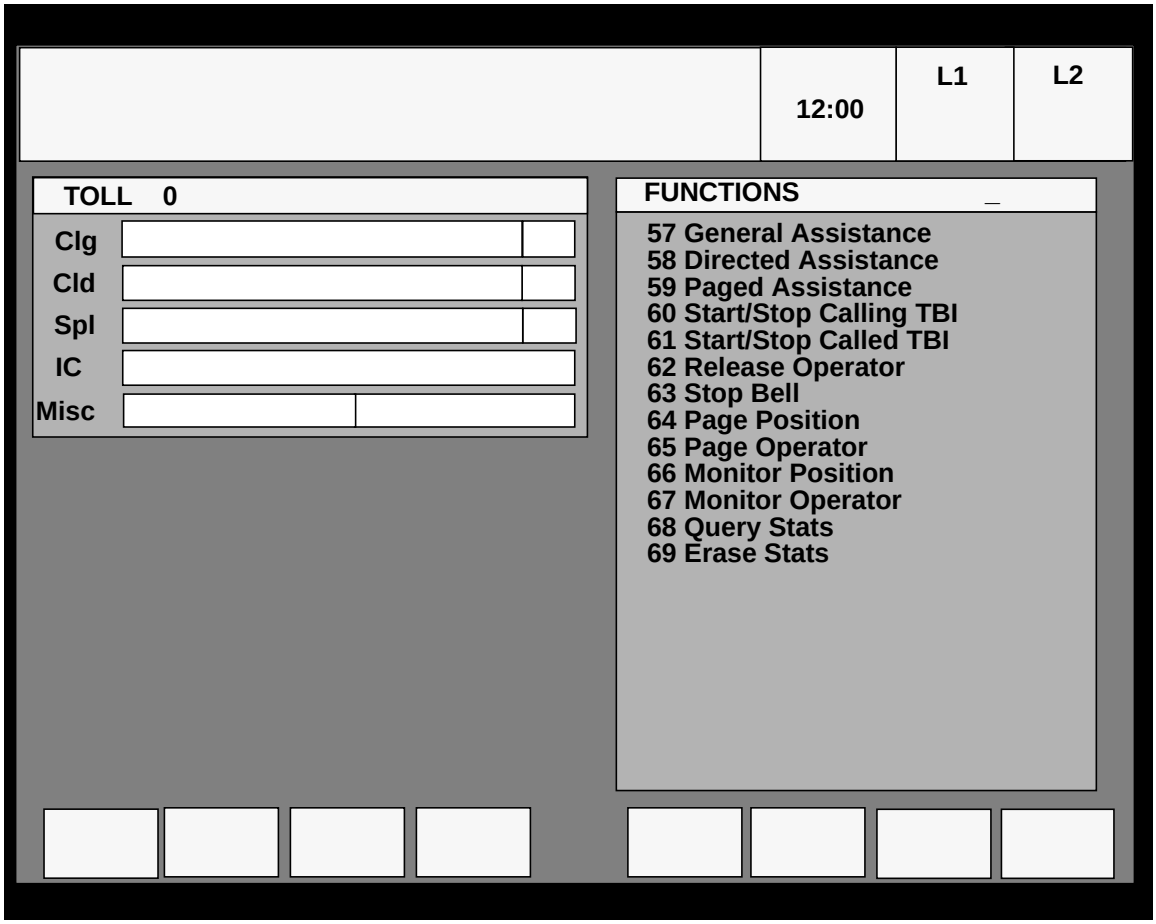


Figure 5-61 Fourth page of the functions menu

Table 5-156 Functions associated with QMS CASE

Function Name	Keying	Explanation
General Assistance	**FNCTS + 57 + START**	No change with QMS CASE*
Directed Assistance	**FNCTS + 58 + START**	No change with QMS CASE*
Paged Assistance	**FNCTS + 59 + START**	No change with QMS CASE*
Release Operator	**FNCTS + 62 + START**	Allows an operator waiting in a queue for assistance to cancel the assistance request. Also, it allows the invoking operator the ability to detach a connected operator without affecting the attached subscriber.
Stop Bell	**FNCTS + 63 + START**	Turns off the local Sonalert beeping. The Sonalert is activated on a position if the logged-in CSE has the STATS or QINFO capability and an office alarm or queue warning, (not for QCW) is detected.
Page Position	**FNCTS + 64 + START**	Allows an operator to initiate a page to a specified position number. After invocation, the cursor is placed in the Misc field where the position number is entered.
Page Operator	**FNCTS + 65 + START**	Allows an operator to initiate a page to a specified operator number. After invocation, the cursor is placed in the Misc field where the operator number is entered.
Monitor Position	**FNCTS + 66 + START**	Allows an operator to begin a monitoring session based upon another operator's position number. To monitor, the position must be in a calls withheld state.
Monitor Operator	**FNCTS + 67 + START**	Allows an operator to begin a monitoring session based upon another operator's operator number. To monitor, the position must be in a calls withheld state.
Query Stats	**FNCTS + 68 + START**	Replaces the existing softkeys with a series of query softkeys. These softkeys can be removed at any time by pressing the "Quit" softkey.
Erase Stats	**FNCTS + 69 + START**	Allows an operator to erase the window containing the results of query stats softkeys.

* This is described in NTP 297-2281-300 - *TOPS MP Operator Guide*

Translations

The tables that follow show the Spanish and French translations for the new QMS CASE strings that appear on the MP:

Table 5-157 “Queued” String

Language	Label
English	“Queued”
French	“Empile“
Spanish	“En Cola”

Table 5-158 “General” String

Language	Label
English	“Gen” short for “General”
French	“Gén“ short for “Général”
Spanish	“Gen“ short for “General“

Table 5-159 “Directed” String

Language	Label
English	“Dir” short for “Directed”
French	“Spc“ short for “Spéciale”
Spanish	“Dir“ short for “Directo“

Table 5-160 “Position” String

Language	Label
English	“Pos” short for “Position”
French	“Pos“ short for “Position”
Spanish	“Pos“ short for “Posición“

Table 5-161 “Release Operator” String

Language	Label
English	“Release Operator”
French	“Libérer Téléphoniste“
Spanish	“Liberar Operadora“

Table 5-162 “Released” String

Language	Label
English	“Released”
French	“Libére”
Spanish	“Liberada“

Table 5-163 “Page To” String

Language	Label
English	“Page To”
French	“Rech“ short for “Rechercher”
Spanish	“Llam a“

Table 5-164 “Page From” String

Language	Label
English	“Page From”
French	“Rech De“ short for “Rechercher De”
Spanish	“Llam De“

Table 5-165 “TEAM/OFFICE INFORMATION” String

Language	Label
English	“TEAM/OFFICE INFORMATION”
French	“EQPE/BUREAU INFORMATION“ short for “EQUIPEMENT/BUREAU INFORMATION“
Spanish	“GRUP/OFICINA INFORMACION” short for “GRUPO/OFICINA INFORMACION“

Table 5-166 “Page Operator” String

Language	Label
English	“Page Operator”
French	“Rech Téléphoniste“ short for “Rechercher Téléphoniste”
Spanish	“Llam Operadora“ short for “Llamada Operadora“

Table 5-167 “Page Position” String

Language	Label
English	“Page Position”
French	“Rech Position“ short for “Rechercher Position”
Spanish	“Llam Posición“ short for “Llamada Posición“

Table 5-168 “Hide Mon ID” String

Language	Label
English	“Hide Mon ID” short for “Hide Monitor ID“
French	“Cacher Num Ec“ short for “Cacher le Numéro de l’Ecoutant”
Spanish	“OcultarMon Id“ short for “Ocultar Monitor Id“

Table 5-169 “Show Mon ID” String

Language	Label
English	“Show Mon ID” short for “Show Monitor ID“
French	“Affich Num Ec“ short for “Afficher le Numéro de l’Ecoutant”
Spanish	“MostrarMon Id“ short for “Mostrar Monitor Id“

Table 5-170 “Stop Bell” String

Language	Label
English	“Stop Bell”
French	“Arrêter sonnerie“
Spanish	“Parar Alarma“

Table 5-171 “Monitor Position” String

Language	Label
English	“Monitor Position”
French	“Ecouter Position”
Spanish	“Monit Posición”

Table 5-172 “Monitor Operator” String

Language	Label
English	“Monitor Operator”
French	“Ecouter Téléphoniste”
Spanish	“Monit Operadora“

Table 5-173 “Query Stats String

Language	Label
English	“Query Stats”
French	“Afficher stat”
Spanish	“Mostrar Estadís”

Table 5-174 “Erase Stats” String

Language	Label
English	“Erase Stats”
French	“Effacer stat”
Spanish	“Borrar Estadís”

TOPS TAMI changes

Position types for CSE

In order to datafill a position for use by a CSE, the position type of the MP must be set to “TOLL AND ASSIST”. To make this change, select 2 (TPC DATAFILL) from the main menu of the TAMI. From there, select 2 (DEFINE POSITION TYPES). At that point the following menu shown in Figure 5-62 appears.

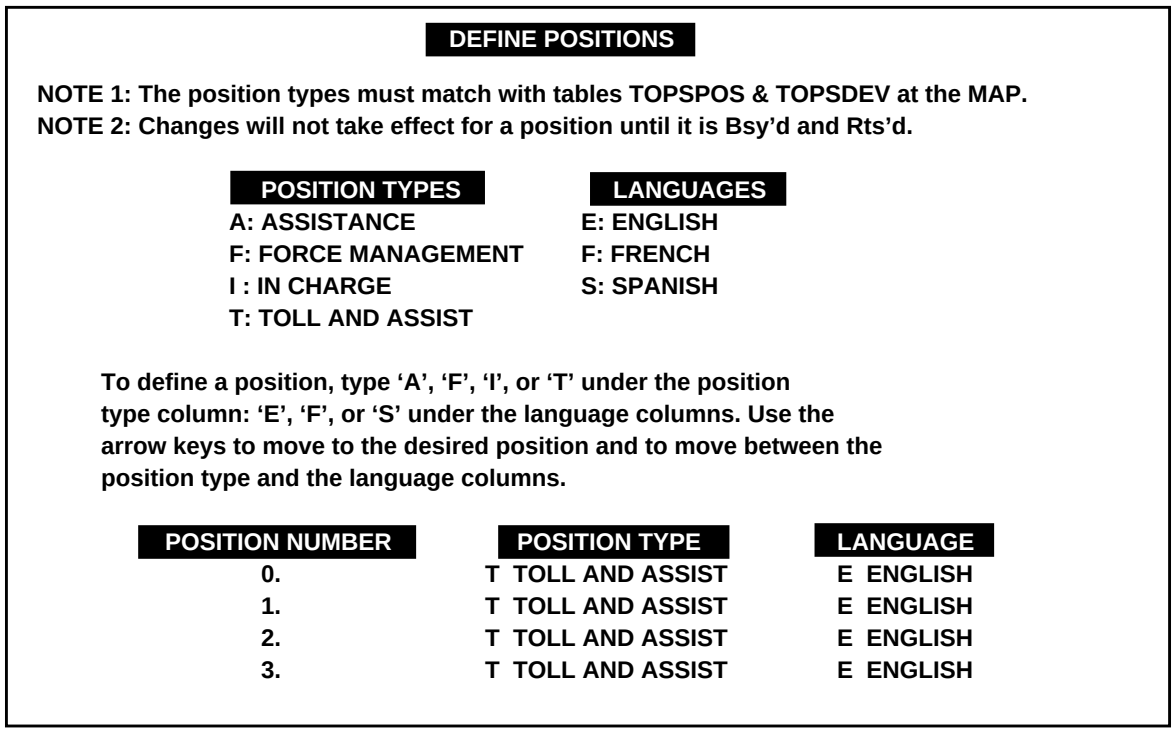


Figure 5-62 TAMI window for defining the MP position type

Use the arrow keys to move to the desired MP. Enter 'T' for "TOLL AND ASSIST". Be sure to press the enter key, then press PF3 to quit and save. The changes do not take effect until the positions are BSYed and RTSed.

For further information about the TAMI see NTP 297-2281-530, *TOPS MP TAMI User Guide*.

Sonalert

By default, all of the positions on a TPC have the Sonalert enabled. Therefore, if the audible alarm is desired, no action is required. Only if it is desired to disable the alarm, must any TPC datafill be changed.

Before any changes to the Sonalert status can be made, all positions on the TPC must first be RTS'd and then BSY'd. Once the positions have been RTS'd and BSY'd, do the following to disable the Sonalert:

Select SONALERT from the TAMI main menu (6 on integrated TPC, 8 on standalone TPC). The menu shown in Figure 5-63 appears.

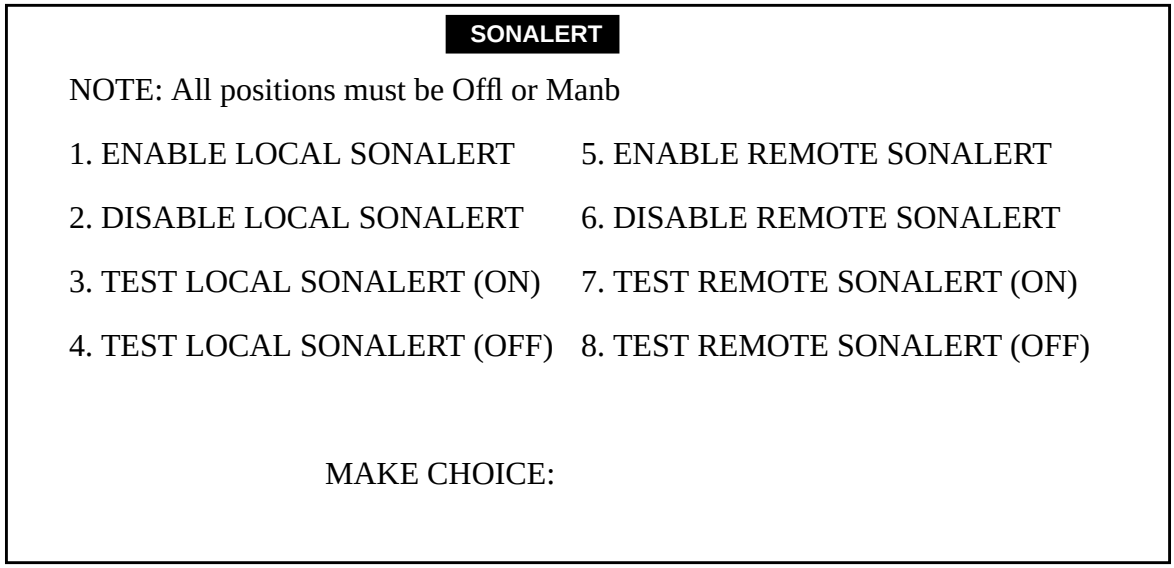


Figure 5-63 TAMI window for modifying the Sonalert state

Select 2 (DISABLE LOCAL SONALERT) from the menu. The system now prompts for the position number. If the Sonalert is already disabled, the request is ignored. For further information about the TAMI see NTP 297-2281-530 *TOPS MP TAMI User Guide*.

AN1830mm.ab01

This activity does not change or modify the existing MM interface.

AN1841mm.aa10

Directories

Table of New/Modified DirectoriesDirectories

Table 5-175 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
OLNSVER	New		All	Both

Accessing directory:

To access OLNSVER

Figure 5-64 Entering OLNSVER

```
CI:
> OLNSVER
OLNSVER:
For a list of available commands type: COMMANDS<cr>.
```

To return to CI

Figure 5-65 Exiting OLNSVER

```
OLNSVER:
>QUIT<cr>
```

Commands

Table of New/Modified Commands

Table 5-176 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CICEXP	New		OLNSVER
CLGNO	New		OLNSVER
CLGSERV	New		OLNSVER
COMMANDS	New		OLNSVER

Table 5-176 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ILPREQ	New		OLNSVER
QACG	New		OLNSVER
QUIT	New		OLNSVER
RESET	New		OLNSVER
SEND	New		OLNSVER
SHOW	New		OLNSVER
TIMEOUT	New		OLNSVER
TRACE	New		OLNSVER

Command name: CICEXP

Command type

Non-Menu

Command target

All processors.

Command availability

RES

Command description

This command allows the user to specify if the CIC Expansion Indicator should be sent in the query message and whether a 3 or 4 digit CIC should be returned in the OLNS response message.

Warning

Not applicable.

Command syntax

```
CICEXP <YES/NO>
```

Default Value

YES

Parameter definitions

Table 5-177 Parameter definition for CICEXP

PARAMETER	VALUE	DEFINITION
YES/NO	YES/Y or NO/N	Indicates if the CIC Expansion Indicator should be sent in the query message and if a 4 digit CIC should be returned in the OLNS response message.

Responses

Response:

```
CIC Expansion: <YES/NO>
```

Explanation:

The CICEXP OLNSVER query parameter now has the value of <YES/NO>.

System action:

The CICEXP OLNSVER query parameter is updated with the value specified by the command parameter.

User action:

None.

Notes

If the CICEXP parameter is set to YES/Y the CIC Expansion Indicator will be sent in the OLNSVER query message and a 4 digit CIC (either IntraLATA, InterLATA, International or any combination of the previous) may be returned in the response message. If the CICEXP parameter is set to NO/N the CIC Expansion Indicator will **not** be sent in the OLNSVER query message and a 3 digit CIC may be returned in the response message.

The IntraLATA Carrier Number Indicator, InterLATA Carrier Number Indicator, and International Carrier Number Indicator are optional OLNS parameters and may or may not be returned by the OLNS LIDB

Examples

Figure 5-66 Setting CICEXP

```
OLNSVER:
> CICEXP Y<cr>
CIC Expansion: Y
```

Command name: CLGNO

Command type

Non-Menu

Command target

All processors.

Command availability

RES

Command description

This command allows the user to specify the digits of the calling party number.

Warning

Not applicable.

Command syntax

`CLGNO <10 digits>`

Default Value

0000000000

Parameter definitions

Table 5-178 Parameter definition for CLGNO

PARAMETER	VALUE	DEFINITION
10 digits	10 decimal digits	The digits of the calling party number

Responses

Response:

```
Calling Number: <10 digits>
```

Explanation:

The `CLGNO` OLNSVER query parameter now has the value of `<10 digits>`.

System action:

The `CLGNO` OLNSVER query parameter is updated with the value specified by the command parameter.

User action:

None.

Notes

None.

Examples

Figure 5-67 Setting CLGNO

```
OLNSVER:
>CLGNO 2012201234
Calling Number: 2012201234
```

Command name: CLGSERV

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to specify the calling party service.

Warning

Not applicable

Command syntax

`CLGSERV <clg service>`

Default Value

STATION

Parameter definitions

Table 5-179 Parameter definition for CLGSERV

PARAMETER	VALUE	DEFINITION
clg service	{STATION, SPECIAL, HOTEL, COIN, MOBILE, OTHER}	Indicates the calling party service.

Responses

Response:

`Calling Service: <clg service>`

Explanation:

The `CLGSERV` OLNSVER parameter now has the value of `<clg service>`.

System action:

The CLGSERV OLNSVER parameter is updated with the value specified by the command parameter.

User action:

None.

Notes

The CLGSERV parameter is only used to index tables OLNSERR and OLNSDFLT in the cases where an error is encountered.

Examples

Figure 5-68 Setting the CLGSERV

```
OLNSVER:
>CLGSERV HOTEL<cr>
Calling Service: HOTEL
```

Command name: COMMANDS

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to obtain a list of commands available in OLNSVER tool.

Warning

Not applicable

Command syntax

COMMANDS<cr>

Parameter definitions

None.

Responses

<list of available commands>

Explanation:

Provide a list of available commands to the user.

System action:

None.

User action:

None.

Example:

Figure 5-69 Display Available Commands

```
OLNSVER:
>COMMANDS<cr>
CICEXP   - Specify if CIC expansion Ind. is sent in query
msg.
CLGNO    - Specify digits of calling party number.
CLGSERV  - Specify calling party service.
COMMANDS - Display list of commands.
ILPREQ   - Specify if ILP Required Ind. is sent in query msg.
QACG     - Query the ACG controls for a given NPA-NXX.
QUIT     - Quit the OLNSVER tool.
RESET    - Reset the OLNSVER tool parameters.
SEND     - Send an OLNSVER query to a LIDB.
SHOW     - Display the OLNSVER tool parameters.
TIMEOUT  - Specify how long to wait for a query response.
TRACE    - Specify the OLNSVER trace functionality.
For more information type: Q <command name>.
```

Command name: ILPREQ

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to specify if the ILP Required Indicator is sent in the query message.

Warning

Not applicable

Command syntax

`ILPREQ <YES/NO>`

Default value

YES

Parameter definitions

Table 5-180 Parameter definition for ILPREQ

PARAMETER	VALUE	DEFINITION
YES/NO	YES/Y or NO/N	Indicates if the ILP Required Indicator is sent in the query message.

Responses

Response:

`ILP Required: <YES/NO>`

Explanation:

The `ILPREQ` OLNSVER query parameter now has the value of `<YES/NO>`.

System action:

The ILPREQ OLNSVER query parameter is updated with the value specified by the command parameter.

User action:

None.

Notes[1]

If the ILPREQ parameter is set to YES the ILP Required Indicator will be sent in the OLNSVER query message and the ILP CIC Indicator will be returned in the response message. If the ILPREQ parameter is set to NO the ILP Required Indicator will not be sent in the OLNSVER query message and the ILP CIC Indicator will not be returned in the response message.

A 4 digit ILP CIC may be returned in the IntraLATA Carrier Number Indicator if ILPREQ is set to YES and CICEXP is set to YES. A 3 digit ILP CIC may be returned in the IntraLATA Carrier Number Indicator if ILPREQ is set to YES and CICEXP is set to NO.

The IntraLATA Carrier Number Indicator is an optional OLNS parameter and may or may not be returned by the OLNS LIDB.

Table 5-181 Relationship between CICEXP and ILPREQ

OLNSVER parameters		Query Message	Response Message (optionally sent by OLNS LIDB)
CICEXP	ILPREQ		
YES	YES	ILP Required Ind sent CIC Expansion Ind sent	4 digit ILP CIC
NO	YES	ILP Required Ind sent CIC Expansion Ind NOT sent	3 digit ILP CIC
YES	NO	ILP Required Ind NOT sent CIC Expansion Ind sent	ILP CIC should not be returned
NO	NO	ILP Required Ind NOT sent CIC Expansion Ind NOT sent	ILP CIC should not be returned

[1]If the ILP SOC option is not ON when the user enters the OLNSVER tool, this command and it's associated functionality will not be accessible to the user. If the SOC option is changed while the user is in the OLNSVER tool, the user must exit and then re-enter for the SOC state change to be recognized.

Examples

Figure 5-70 Setting the ILPREQ

```
OLNSVER:
> ILPREQ YES<cr>
ILP Required: YES
```

Command name: QACG

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command queries the Automatic Code Gapping (ACG) status based on the first 6 digits of the calling party directory number.

Warning

Not applicable

Command syntax

```
QACG <6 digits>
```

Parameter definitions

Table 5-182 Parameter definition for QACG

PARAMETER	VALUE	DEFINITION
6 digits	6 decimal digits	The first 6 digits of the calling party number used to query the ACG status.

Responses

Response 1: ACG Active

```
Automatic Code Gapping is active for <6 digits>.
Duration: XXX  secs  Gap: XX  secs
ACG duration controls expire in XX seconds.
```

Explanation:

Returns the ACG controls for the calling party numbers whose fist 6 digits match those specified.

System action:

None.

User action:

None.

Example:

Figure 5-71 QACG - ACG controls active

```
OLNSVER:
>QACG 619322<cr>
Automatic Code Gapping is active for 619322.
Duration: 128 secs   Gap: 4 secs
ACG duration controls expire in 65 seconds.
```

Response 2: ACG not Active

```
Automatic Code Gapping is not active for <6 digits>.
```

Explanation:

Informs the user that ACG controls are not in effect for calling party numbers whose first 6 digits match those specified.

System action:

None.

User action:

None.

Example:

Figure 5-72 QACG - ACG controls not active

```
OLNSVER:
>QACG 619321<cr>
Automatic Code Gapping is not active for 619321.
```

Command name: QUIT

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to quit the OLNSVER CI increment.

Warning

Not applicable

Command syntax

`QUIT`

Parameter definitions

This command has no parameters.

Responses

Response:

None.

Explanation:

Not Applicable.

System action:

Exit the OLNSVER increment.

User action:

None.

Notes

None.

Examples

Figure 5-73 QUITting OLNSVER

```
OLNSVER:
>QUIT<cr>
CI:
```

Command name: RESET

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to reset the OLNSVER parameters to their default values.

Warning

```
This will reset all the parameters to default values.
Are you sure you want to do this?
Please confirm (“YES”, “Y”, “NO”,or “N”):
```

Command syntax

```
RESET
```

Parameter definitions

This command has no parameters.

Responses

Response 1: Resetting the parameters to default values

```
The parameters have been reset to default values.
```

Explanation:

Informs the user that the parameters have been reset to default values.

System action:

The OLNSVER parameters are reset to the following default values:

Table 5-183 Default parameter values for the OLNSVER tool

Parameter Name	Default Value
CLGNO	0000000000
CICEXP	YES

Table 5-183 Default parameter values for the OLNSVER tool

Parameter Name	Default Value
ILPREQ	YES NOTE: Only if the ILP_SOC option is ON. If the ILP_SOC option is not ON this parameter will not be available to the user
CLGSERV	STATION
TIMEOUT	2 secs
TRACE	OFF

User action:

None.

Example:

Figure 5-74 RESETting the parameters to default values

```
OLNSVER:
>RESET<cr>
This will reset all parameters to default values.
Are you sure you want to do this?
Please confirm (“YES”, “Y”, “NO”,or “N”):
>Y<cr>
The parameters have been reset to default values.
```

Response 2: Not resetting the parameters to default values

```
The parameters have NOT been reset to default values.
```

Explanation:

Informs the user that the parameters have not been reset to default values.

System action:

None

User action:

None.

Example:

Figure 5-75 Not RESETting the parameters to default values

```
OLNSVER:
>RESET<cr>
The RESET command will reset all parameters to default
values.
Are you sure you want to do this?
Please confirm (“YES”, “Y”, “NO”,or “N”):
>N<cr>
```

Command name: SEND

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user send an OLNS query to the OLNS LIDB then interprets and displays the response received. If the query is unsuccessful or an error is detected in the response message, an error message will be displayed along with a formatted response message containing default information obtained from tables OLNSERR and OLNSDFLT.

Warning

Not applicable

Command syntax

SHOW

Parameter definitions

There are no parameters associated with this command.

Responses

Query Success

```
Sending OLNS query...
<formatted list of received indicators>
```

Explanation:

Displays the formatted received information to the user.

System action:

None.

User action:

None.

Example:

Figure 5-76Successful OLNS query response with additional ACG information

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Billing/Services Indicator:
   Collect = Allowed
   Third   = Allowed
   Free TA = Allowed
   CC      = Allowed
   Free DA = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Allowed
   Spare   = Allowed
Treatment Ind  = Oper Trtmt, Cust Req
Serv/Equip Ind = POTS, Res, FR
Billing/Services DA Indicator:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
InterLATA Carrier Ind:
   IC  = Indicated
   INC = Indicated
InterLATA Carrier = 2085
International Carrier = 3456
Alpha String = Elderly
Disallowed Card Issuer Codes:
   123456, 789012, 345678, 901234, 567890
Foreign Lang = Greek
Automatic Code Gap:
   Control Cause = Database Overload
   Duration      = 16 secs
   Gap           = 30 secs
Calling NPA-NXX  = 111111
```

Response 1: Query blocked by ACG controls

```
ACG Active - Query blocked by ACG controls for <6 digits>
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The query was not sent due to ACG controls being active based on the first 6 digits of the calling party directory number. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT.

System action:

None.

User action:

Wait until the ACG gap period has expired before making a query or wait until the ACG duration has expired.

Example:

Figure 5-77 Query blocked by ACG controls

```
OLNSVER:
>SEND<cr>
ACG Active - Query blocked by ACG controls for: 619322
Default values used from table OLNSDFLT index key: 5
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Data Error - default value derived

```
Sending OLNS query...
Response Error - Data error, out of range value detected
in OLNS response...
Default values used from table OLNSDFLT index key: XX
<formatted list of received indicators with error flagged
by:>

<Indicator name> = Unknown, <value received>
                   Default = <derived default value>
```

Explanation:

TOPS detected a data error (not in the range of defined protocol values) in the OLNS LIDB response messages. An error message is displayed to the user along with a formatted list of received indicators and their values. For the indicator value considered a data error the value received is displayed along with the derived default value from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example

Figure 5-78 Data Error - default value derived

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Response Error - Data Error, out of range value detected in OLNS
response...
Default values used from table OLNSDFLT index key: 21
Billing/Services Ind:
   Collect = Allowed
   Third   = Not Allowed
   Free TA = Allowed
   CC      = Unknown, 12
             Default - Allowed for Domestic
   Free DA = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Allowed for Local
Treatment Ind = Oper Trmt at Cust Req
Serv/Equip Ind = POTS Res-Flat Rate
InterLATA Carrier Ind:
   IC  = Indicated
   INC = Not Indicated
InterLATA Carrier = 5555
Alpha String = ELDERLY
Disallowed Card Issuer Codes:
   201220, 201221
Billing/Services DA Ind:
   Third   = Not Allowed
   CC      = Not Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
ILP CIC Ind = Indicated
ILP Carrier = 1234
```

Response 1: Data Error - default value not derived

```
Sending OLNS query...
Response Error - Data error, out of range value detected
in OLNS response...
<formatted list of received indicators with error flagged
by:>

<Indicator name> = Unknown, <value received>
```

Explanation:

TOPS detected a data error (not in the range of defined protocol values) in the OLNS LIDB response messages. An error message is displayed to the user along with a formatted list of received indicators and their values. For the indicator value considered a data error the value received is displayed. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-79 Data Error - default not derived

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Response Error - Data Error, out of range value detected in OLNS
response...
Billing/Services Ind:
   Collect = Allowed
   Third   = Not Allowed
   Free TA = Allowed
   CC      = Allowed
   Free DA = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Allowed for Local
Treatment Ind = Oper Trmt at Cust Req
Serv/Equip Ind = POTS Res-Flat Rate
InterLATA Carrier Ind:
   IC  = Unknown, 5
   INC = Not Indicated
Billing/Services DA Ind:
   Third   = Not Allowed
   CC      = Not Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Data Error - default values derived for all

```
Sending OLNS query...
Response Error - Data error, out of range value detected
in OLNS response...
Default values used from table OLNSDFLT index key: XX
<formatted list of received indicators with error flagged
by:>
```

Explanation:

TOPS detected more than one data error (not in the range of defined protocol values) in the OLNS LIDB response messages. An error message is displayed to the user along with a formatted list of derived indicators and their values. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-80 Data Error - default values derived for all

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Response Error - Data Error, out of range value detected in OLNS
response...
Default values used from table OLNSDFLT index key: 32
Billing/Services Ind:
   Collect = Allowed
   Third   = Not Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Allowed for Local
Treatment Ind  = Oper Trmt at Cust Req
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Not Allowed
   CC      = Not Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Data Unavailable

```
Sending OLNS query...
Return Error - Data Unavailable...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB reported data unavailable in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for software problems or that the originating line number is datafilled on the OLNS LIDB.

Example:

Figure 5-81 Data Unavailable

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Data Unavailable...
Default values used from table OLNSDFLT index key: 45
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: GTT Failure

```
Sending OLNS query...
Default values used from table OLNSDFLT index key: XX
Query Failure - GTT Failure...
<formatted list of default indicators>
```

Explanation:

The query message was returned before it ever reached the OLNS LIDB. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT.

System action:

None.

User action:

Check CCS7 network datafill and connections.

Example:

Figure 5-82 GTT Failure

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Query Failure - GTT Failure...
Default values used from table OLNSDFLT index key: 67
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Miscellaneous Error

```
Sending OLNS query...
<Response Error or Query Failure> - Miscellaneous Error...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

An error has occurred that otherwise has not been defined, e.g. unable to decode response message. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB. Check CCS7 network datafill and connections.

Example:

Figure 5-83 Miscellaneous Error

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Response Error - Miscellaneous Error...
Default values used from table OLNSDFLT index key: 100
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Missing Group

```
Sending OLNS query...
Return Error - Missing Group...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB reported missing group in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-84 Missing Group

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Missing Group...
Default values used from table OLNSDFLT index key: 76
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Missing Customer Record

```
Sending OLNS query...
Return Error - Missing Customer Record...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB reported missing customer record in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-85 Missing Customer Record

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Missing Customer Record...
Default values used from table OLNSDFLT index key: 1
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Misroute

```
Sending OLNS query...
Return Error - Misroute...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB reported misroute in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-86 Misroute

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Misroute...
Default values used from table OLNSDFLT index key: 27
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Network Problem

```
Sending OLNS query...
Query Failure - Network Problem...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The query was returned to TOPS before it ever reached the OLNS LIDB. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT.

System action:

A TCAP log will be generated.

User action:

Check CCS7 network datafill and connections.

Example:

Figure 5-87 Network Problem

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Query Failure -Network Problem...
Default values used from table OLNSDFLT index key: 87
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Non-participating Group

```
Sending OLNS query...
Return Error - Non-participating Group...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned non-participating group in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-88 Non-participating Group

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Non-participating Group...
Default values used from table OLNSDFLT index key: 93
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Protocol Problem

```
Sending OLNS query...
Reject - Protocol Problem...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned a reject message. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check CCS7 network datafill and connections.

Example:

Figure 5-89 Protocol Problem

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Reject - Protocol Problem...
Default values used from table OLNSDFLT index key: 30
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Screened Data - partial response derived

```
Sending OLNS query...
Response Error - Screened Data...
Default values used from table OLNSDFLT index key: XX
<formatted list of received indicators with screened value
flagged by:>

<Indicator name> = Screened
                   Default = <derived default value>
```

Explanation:

The OLNS LIDB returned screened data in the response message for the entire originating line number requested. An error message is displayed to the user along with a formatted list of received indicators and their values. For the indicator value(s) screened the value received is displayed along with the derived default value(s) from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

None.

Example:

Figure 5-90 Screened Data - partial response derived

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Response Error - Screened Data...
Default values used from table OLNSDFLT index key: 21
Billing/Services Ind:
   Collect = Allowed
   Third   = Not Allowed
   Free TA = Allowed
   CC      = Screened
             Default - Allowed
   Free DA = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Allowed for Local
Treatment Ind = Oper Trmt at Cust Req
Serv/Equip Ind = POTS Res-Flat Rate
InterLATA Carrier Ind:
   IC  = Indicated
   INC = Not Indicated
InterLATA Carrier = 5555
Alpha String = ELDERLY
Disallowed Card Issuer Codes:
   201220, 201221
Billing/Services DA Ind:
   Third   = Not Allowed
   CC      = Not Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
ILP CIC Ind = Indicated
ILP Carrier = 1234
```

Response 1: Screened Data - default not derived

```
Sending OLNS query...
Response Error - Screened Data...
<formatted list of received indicators with screened value
flagged by:>

<Indicator name> = Screened
```

Explanation:

The OLNS LIDB returned screened data in the response for the originating line number requested. An error message is displayed to the user along with a formatted list of received indicators and their values. For the indicator value(s) screened the value received is displayed. Also, any additional ACG information is displayed.

System action:

None.

User action:

None.

Example:

Figure 5-91 Screened Data - default not derived

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Response Error - Screened Data...
Billing/Services Ind:
   Collect = Allowed
   Third   = Not Allowed
   Free TA = Allowed
   CC      = Allowed
   Free DA = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Allowed for Local
Treatment Ind = Oper Trmt at Cust Req
Serv/Equip Ind = POTS Res-Flat Rate
InterLATA Carrier Ind:
   IC  = Screened
   INC = Not Indicated
Alpha String = ELDERLY
Disallowed Card Issuer Codes:
   201220, 201221
Billing/Services DA Ind:
   Third   = Not Allowed
   CC      = Not Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
ILP CIC Ind = Indicated
ILP Carrier = 1234
```

Response1: Screened Data for entire message

```
Sending OLNS query...
Return Error - Screened Data...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned screened data for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

None.

Example:

Figure 5-92 Screened Data- entire response derived

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Screened Data...
Default values used from table OLNSDFLT index key: 44
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Timeout

```
Sending OLNS query...
Query Failure - Timeout...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

TOPS did not receive a response from the OLNS LIDB within the maximum time allowed. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT.

System action:

None.

User action:

Check and revise OLNSVER parameters.

Example:

Figure 5-93 Timeout

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Query Failure - Timeout...
Default values used from table OLNSDFLT index key: 92
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Unavailable Network Resource

```
Sending OLNS query...
Return Error - Unavailable Network Resource...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned unavailable network resource in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-94 Unavailable Network Resource

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Unavailable Network Resource...
Default values used from table OLNSDFLT index key: 23
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Unexpected Component Sequence

```
Sending OLNS query...
Return Error - Unexpected Component Sequence...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned unexpected component sequence in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-95 Unexpected Component Sequence

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Unexpected Component Sequence...
Default values used from table OLNSDFLT index key: 11
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Unequipped User

```
Sending OLNS query...
Query Failure - Unequipped User...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The query was returned to TOPS before it ever reached the OLNS LIDB this was due to a link problem. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT.

System action:

A TCAP log will be generated.

User action:

Check CCS7 network datafill and connections.

Example:

Figure 5-96 Unequipped user

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Query Failure - Unequipped User...
Default values used from table OLNSDFLT index key: 16
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Unexpected Data Value

```
Sending OLNS query...
Return Error with Problem Data - Unexpected Data Value...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned unexpected data value in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB. Check and revise OLNSVER parameters.

Example:

Figure 5-97 Unexpected Data Value

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error with Problem Data - Unexpected Data Value...
Default values used from table OLNSDFLT index key: 15
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Response 1: Vacant Group

```
Sending OLNS query...
Return Error - Vacant Group...
Default values used from table OLNSDFLT index key: XX
<formatted list of default indicators>
```

Explanation:

The OLNS LIDB returned vacant group in the return error message for the originating line number requested. An error message is displayed to the user along with a formatted list of default indicators and values derived from tables OLNSERR and OLNSDFLT. Also, any additional ACG information is displayed.

System action:

None.

User action:

Check for hardware or software problems on the OLNS LIDB.

Example:

Figure 5-98 Vacant Group

```
OLNSVER:
>SEND<cr>
Sending OLNS query...
Return Error - Vacant Group...
Default values used from table OLNSDFLT index key: 65
Billing/Services Ind:
   Collect = Allowed
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
   DACC    = Not Allowed
Treatment Ind = Tone
Serv/Equip Ind = POTS Res-Flat Rate
Billing/Services DA Ind:
   Third   = Allowed
   CC      = Allowed
   Spl BNS = Allowed
   Sent Pd = Allowed
```

Command name: SHOW

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to display the value of the OLNSVER parameters.

This command does not allow the user to view the response message again. The query message must be resent via the SEND command or the TRACEing utility to view the response message more than once.

Warning

Not applicable

Command syntax

SHOW

Parameter definitions

This command has no parameters.

Responses

Response:

```
Calling Number: <10 digits>
CIC Expansion: <YES/NO>
ILP Required: <YES/NO>
Calling Service: <clg service>
Timeout: <seconds>
Tracing: <ON/OFF>
```

Explanation:

The SHOW commands lists the current values of all OLNSVER parameters.

System action:

None.

User action:

None.

Notes

None.

Examples

Figure 5-99 The SHOW command

```
OLNSVER:
>SHOW<cr>
Calling Number: 2012201234
CIC Expansion: YES
ILP Required: YES
Calling Service: STATION
Timeout: 5 secs
Tracing: ON
>
```

Command name: TIMEOUT

Command type

Non-Menu

Command target

All processors

Command availability

RES

Command description

This command allows the user to select a maximum waiting period for receiving a reply for an OLNS query in seconds.

Warning

Not applicable

Command syntax

`TIMEOUT <seconds>`

Default value

2

Parameter definitions

Table 5-184 Parameter definition for TIMEOUT

PARAMETER	VALUE	DEFINITION
seconds	1-15	The number of seconds in the maximum wait period.

Responses

Response:

`Timeout: <seconds>`

Explanation:

The `TIMEOUT` OLNSVER parameter now has the value of `<seconds>`.

System action:

The `TIMEOUT` OLNSVER parameter is updated with the value specified by the command parameter.

User action:

None.

Notes

None.

Examples

Figure 5-100 Setting TIMEOUT

```
OLNSVER:
>TIMEOUT 5<cr>
Timeout: 5 secs
```

Command name: TRACE

Command type

Non-Menu

Command target

All processors.

Command availability

RES

Command description

This command allows the user to turn tracing on/off, display up to 10 messages in the tracing buffer, and clear the messages in the tracing buffer.

Warning

Not applicable.

Command syntax

```
TRACE <ON/OFF> or <display>
```

Default value

OFF

Parameter definitions

Table 5-185 Parameter definitions for TRACE

PARAMETER	VALUE	DEFINITION
ON/OFF	ON or OFF	ON - enables messages to be saved to the tracing buffer to later be displayed OFF - disables messages from being saved to the tracing buffer
display	{CLEAR, DISPLAY}	CLEAR - clears the messages in the tracing buffer DISPLAY - display the messages in the tracing buffer

Responses

Response 1: Setting the TRACE parameter

```
Tracing: <ON/OFF>
```

Explanation:

The TRACE OLNSVER parameter now has the value of <ON/OFF>.

System action:

The TRACE OLNSVER parameter is updated with the value specified by the command parameter.

User action:

None.

Example:

Figure 5-101 Setting TRACE

```
OLNSVER:
>TRACE ON<cr>
Tracing: ON
```

Response 2: Clearing the TRACE buffer

```
The trace buffer has been cleared.
```

Explanation:

The message tracing buffer is cleared off all messages.

System action:

The message tracing buffer is cleared off all messages.

User action:

None.

Example:

Figure 5-102 Clearing the TRACE buffer

```
OLNSVER:
>TRACE CLEAR<cr>
The trace buffer has been cleared.
```

Response 4: Displaying the TRACE buffer - Successful Response

```
Response Msg = <hexadecimal stream>
Pkg Type= <pkg type id>
ID= <identifier>   Len= <hex>   <additional identifier
information>
ID= <identifier>   Len= <hex>   <additional identifier
information>
•
•
•
```

Explanation:

Displays to the user a raw hexadecimal dump of the response message received from the OLNS LIDB along with the same message in a formatted form.

System action:

None.

User action:

None.

Example:

Figure 5-103 Displaying the TRACE buffer - Successful response message with ACG information

```
OLNSVER:
>TRACE DISPLAY<cr>
Response Msg=  E8 54 EA 39 CF 01 01 F2 34 DF 48 08 41 42 43 44 45 46 47
48 DF
5E 03 62 54 5B DF 79 02 5B 01 DF 4B 02 02 03 DF 68 01 12 DF 6C 01 0E DF
74 01
15 DF 78 01 02 DF 49 06 1B 00 01 04 21 43 E9 17 CF 00 D0 02 07 01 F2 0F
DF 47
03 03 05 08 84 07 02 00 01 06 19 79 19
Pkg Type= Response    Trans ID= #00000000   ID= Comp Seq    Len= 84
ID= Ret Res Last    Len= 57   ID= Comp ID   Len= 1   Corr ID= 1
ID= Parm Set   Len= 52
ID= Alpha Str   Len= 8   Str= ABCDEFGH
ID= Bill/Svc TA   Len= 3   Coll= Allow Dom    Third= Allow w/Opr Vfy
    Free TA= Allow    CC= Card Rstr Lcl
    Free DA= Allow    BNS= Allow    Sent Pd= Intra Due To Non-Pay
    DACC= Allow w/Bill Rstr    Spare= Allow
ID= Bill/Svc DA   Len= 2   Third= Allow w/Opr Vfy
    CC= Card Rstr    BNS= Allow    SentPd= Allow
ID= IC Ind   Len= 2   IC= Indic    INC= Denied
ID= Serv/Eqp   Len= 1   Serv/Eqp= Voice Quote w/Tax
ID= Trtmt   Len= 1   Trtmt= Auto Trtmt, Tone/Ann 7
ID= For Lang   Len= 1   Lang= Navaho
ID= ILP Ind   Len= 1   ILP= Indic
ID= Digits   Len= 6   Type= Orig ILP   Nature= No Pres Rst, Ntl
    Plan/Enc= Not Appl, BCD    Count= 4   Digits= 1234
ID= Inv Last    Len= 23   ID= Comp ID   Len= 0
ID= Op Code   Len= 2   Fam= Netwk Mgmt    Spec= Auto Code Gap
ID= Parm Set   Len= 15
ID= ACG  Len= 3   Cntrl= DB Ovrld    Dur= 16 secs    Gap= 30 secs
ID= Digits   Len= 7   Type= Clg   Nature= No Pres Rst, Ntl
    Plan/Enc= Not Appl, BCD    Count= 6   Digits= 919791
```

Response 5: Displaying the TRACE buffer - Return Error Message

```
Response Msg = <hexadecimal stream>
Pkg Type= <pkg type id>
ID= <identifier>   Len= <hex>   <additional identifier
information>
ID= <identifier>   Len= <hex>   <additional identifier
information>
•
•
•
```

Explanation:

Displays to the user a raw hexadecimal dump of the return error message sent to the OLNS LIDB along with the same message in a formatted form.

System action:

None.

User action:

Look at the `Error Code` field for more information on the Return Error.

Example:

Figure 5-104 Displaying the TRACE buffer - Return error message

```
OLNSVER:
>TRACE DISPLAY<cr>
Response Msg=  E8 0A EB 08 CF 01 01 D3 01 04 F2 00
Pkg Type= Response   Trans ID= #00000055  ID= Comp Seq   Len= 10
ID= Ret Err    Len= 8   ID= Comp ID   Len= 1   Corr ID= 1
ID= Err Code   Len= 1   Err Code= Miss Cust Rec    ID= Parm Set
Len= 0
```

Response 6: Displaying the TRACE buffer - Return Error Message with Problem Data

```
Response Msg = <hexadecimal stream>
Pkg Type= <pkg type id>
ID= <identifier>   Len= <hex>   <additional identifier
information>
ID= <identifier>   Len= <hex>   <additional identifier
information>
•
•
•
```

Explanation:

Displays to the user a raw hexadecimal dump of the return error message sent to the OLNS LIDB along with the same message in a formatted form.

System action:

None.

User action:

Look at the `Error Code` field for more information on the Return Error.

Example:

Figure 5-105 Displaying the TRACE buffer - Return error message with problem data

```
OLNSVER:
>TRACE DISPLAY<cr>
Response Msg=  E8 10 EB 0E CF 01 00 D3 01 02 F2 06 86 04 DF 46 01 00
Pkg Type= Response   Trans ID= #00000000  ID= Comp Seq   Len= 16
ID= Ret Err    Len= 14   ID= Comp ID   Len= 1   Corr ID= 0
ID= Err Code   Len= 1   Err Code= Unexp Data Val   ID= Parm Set
Len= 6
ID= Prob Data  Len= 4   Prob Data= #DF460100
```

Response 7: Displaying the TRACE buffer - Reject Message

```
Response Msg = <hexadecimal stream>

Pkg Type= <pkg type id>
ID= <identifier>   Len= <hex>   <additional identifier
information>
ID= <identifier>   Len= <hex>   <additional identifier
information>
•
•
•
```

Explanation:

Displays to the user a raw hexadecimal dump of the reject message sent to the OLNS LIDB along with the same message in a formatted form.

System action:

None.

User action:

Look at the `Type` and `Specifier` fields for more information on the Reject.

Example:

Figure 5-106 Displaying the TRACE buffer - Reject message

```
OLNSVER:
>TRACE DISPLAY<cr>
Response Msg=  E8 0B EC 09 CF 01 00 D5 02 02 03 F2 00
Pkg Type= Response   Trans ID= #00000000  ID= Comp Seq   Len= 11
ID= Reject    Len= 9   ID= Comp ID   Len= 1   Corr ID= 0
ID= Prob Code   Len= 2   Type= Inv Prob    Spec= Incorr Parm
ID= Parm Set    Len= 0
```

Response 8: Displaying the TRACE buffer - UDTS Message

```
Response Msg = UDTS Msg
Diagnostic Value = <digit>, <failure reason>
```

Explanation:

Displays to the user a the diagnostic values received in the UDTS message along with why the query message was returned before it reached the OLNS LIDB.

System action:

None.

User action:

Look at the `Diagnostic Value` for more information.

Example:

Figure 5-107 Displaying the TRACE buffer - UDTS message

```
OLNSVER:
>TRACE DISPLAY<cr>
TCAP Event= UDTS   Diag= 5, Network Problems
```

Response 9: Unable to format response

```
Response Msg = <hexadecimal stream>
Unable to format message.
```

Explanation:

Displays to the user a raw hexadecimal dump of the response received along with an error message stating that OLNSVER was unable to format the message.

System action:

None.

User action:

Look at the hexadecimal message for more information.

Example:

Figure 5-108 Displaying the TRACE buffer - Unable to format message

```
OLNSVER:
>TRACE DISPLAY<cr>
Response Msg=  E8 10 EA 0E CF 01 01 F2 09 DF 43 06 02 03 00 00 00 32
Pkg Type= Conv w/Perm   Trans ID= #00000000  ID= Comp Seq   Len=
16
Unable to format rest of message.
```

AN1866MM.AA11

Directories

DASIMDIR

Table of New/Modified Directories

Table 5-186 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
DASIMDIR	Changed		All	Res

Accessing directory:

To access

DASIM

To return to CI

LEAVE

Commands

Table of New/Modified CommandsCommands

Table 5-187 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SCENCCI	Changed		DASIMDIR

Command name: SCENCCI

Command type

NON_MENU

Command target

Both

Command availability

Res

Command description

This command displays, modifies and selects the scenario the simulator uses for a DA call (in the standard DA protocol). This command is enhanced by this feature to include support for the new Transfer_With_Context message

Warning

None

Command syntax

```
TOPSVR VENDOR & DATALINK CONTROLLING COMMANDS:
  DATA
  SETLINK
  VENDOR
  SIM
  LOGDTL
  LANG
  POSRSN
  CCANNOPT
  POOLID
  CCPOOLID
  LISTING
  ANN
  REQDN
  INTDN
  CCBILTYPE
  SCENCCI
  SERVNUM
  CLEAR
  TRACE
  DUMP
  RST
  ADASCONT
  AUTOLANG
  TQCLDNAM
  MONITOR
  RESOURCE
  CONTROLLIST
  CONTEXTCOUNT
  CONTEXTBLOCK
  CONTEXTDETAIL
  HELP
```

Parameter definitions

Table 5-188 Parameter Definitions

PARAMETER	VALUE	DEFINITION
CONTROLLIST	0 TO 4095	mandatory - specifies which control list identifier to use when transferring the call to OSSAIN. 0 to 4094 is a valid range, with 4095 being the nil instance of control list. An invalid control list identifier (e.g. not datafilled) will result in an error case.
CONTEXTCOUNT	0 to 29	mandatory- represents the count of bytes to be transferred to the OSSAIN service node from the DAS.
CONTEXTBLOCK	1 to 29 hex bytes	mandatory- represents the data to be transferred to the OSSAIN service node from the DAS. Bytes are datafilled from byte position zero up to thirty, any un-datafilled bytes after the entry will be defaulted to #FF, if data must be defaulted before the entered data, the default values should be entered.
CONTEXTDETAIL	NOBILL, BILL	identifies which type of billing is to be used before changing the call to TA and sending it to the service node.

COMMAND TO MODIFY THE SCENARIO FOLLOWED BY THE SIMULATOR
Parms: <SUB-COMMAND> {DISPALL,
DISPLAY [<INDEX#> {0 TO 23}],
SELECT <INDEX#> {0 TO 23},
MODIFY_DESCRIPT <DESCRIPTION> STRING,
MODIFY_EVENT <EVENT#> {0 TO 19}
<EVENT> {NIL,
CALLBEGIN,
CALLFLOAT,
CALLSTATUS,
CALLEND,
AMATRANSFER,
ARUREQUEST,
ARUCONNECT,
POSREQUEST,
POSCONNECT,
POSDISCONNECT,
POSRELEASE,
POSSTATUS,
AUDITREQUEST,
AUDITREPLY,
POSREPLY,
CCARUCONNECT,
COMPLETECALL,
EXTENDARUREQ,
SRVREQUEST,
RELEASERESOURCE
TRANSFERWITHCONTEXT,}
<TIME-VALUE> {1 TO 255}
<TIME-UNITS> {TENMS,
SECS,
MINS,
HRS,
AEONS}}

Parameter definitions

Table 5-189 Parameter Definitions

PARAMETER	VALUE	DEFINITION
sub-command	display, dispall, select, modify_descript, modify_event	mandatory - specifies to display, select which scenario or modify the current scenario
index#	0 TO 23	identifies which scenario to select or display
event#	0 TO 19	identifies which event in the current scenario is to be modified
event	TRANSFERWITHCONTEXT, etc.	identifies which message is to be sent or expected at this point in the call scenario
time-value	1 TO 255	together with time-units determines how much time to wait until the next event in the scenario
time-units	TENMS, SECS, MINS, HRS, AEONS	together with time-value determines how much time to wait until the next event in the simulator

Responses

No new responses are provided

Response

Not Applicable

Explanation: None

System action: None

User action: None

Notes

None

Examples

> SCENCCI MODIFY_EVENT 1 CONTEXTXFER 10 SECS

```
>CONTROLLIST 10

>CONTEXTCOUNT 5

>CONTEXTBLOCK #D4 #AB #CD #EF #99

>CONTEXTDETAIL BILL
```

New Scenarios

THE SIMULATOR IS ON

SIMULATOR LINK IS SET TO: STUB

VENDOR IS SET TO: CCI

THE DESTID IS SET TO: 0

THE CC DESTID IS SET TO: 0

THE IBM LISTING STATUS IS SET TO: 0

THE AUTO COLLECT OPTION IS SET TO: NOBILL

THE DELAY IS SET TO: 0

ANNOUNCEMENT DATA:

SCEN INDEX	SIM DESCRIPTION	ANN NUMBER
0	DA, AUTO QUOTE, EXT ARU	0
1	DA, AUTO QUOTE, EXT ARU, RECALL	0
2	DA, AQ, EXT ARU, RECALL DENIED	0
3	VOICE QUOTE, DA, RLS BY DAS	0
4	DA MEMORY CALL, VOICE QUOTE	0
5	DA OPERATOR, XFR, VOICE QUOTE	0
6	DA, MULTIPLE REQUEST	0
7	DA, AUTO-QUOTE, NO ANSWER	0
8	AUTO DA CALL COMPLETION	0
9	AUTO-INTERCEPT CALL TO ARU	0
10	INTERCEPT CUT THROUGH	0
11	AUTO-INTC, SEARCH TIMEOUT, VQ	0
12	AUTO-INTC, NO ARU, VOICE QUOTE	0
13	ONI-INTC, AUTO QUOTE	0
14	DA, AUTO QUOTE, INT ARU, RECALL	0
15	DA, AQ, INT ARU, 2 RCLS	0
16	ANI INT, INT ARU, CUT	0
17	ANI INT, INT ARU, CUT, RCL	0
18	VQUOTE, SERV CHANGE, DA AND TA	0
19	VQUOTE, POS RLS VIA RELAY	0
20	NO ANNOUNCEMENT ADACC	0

```
   21     DA, TRANSFER CONTEXT NOARU       0
   22     DA, TRANSFER CONTEXT ARU FIRST         0

THE SCENARIO SELECTED IS: 21

THE REQUESTED DN IS: 0000000000

THE INTERCEPT ONI/ANIF DN IS: 0000000000

THE CC BILL TYPE IS SET TO: NONE

CALL COMPLETION AND ANNOUNCEMENT OPTION IS SET TO: NOCC

ADASCONT IS SET TO: NO

AUTOLANG IS SET TO: 15

TQCLDNAM IS SET TO: 127

MONITOR IS SET TO:  NO MON

RESOURCE IS SET TO:  CALL

TRACING IS NOT ACTIVATED

THE SERVICE REQUEST VALUES ARE SET TO:

END OF SIMULATOR DATA
```

The two new scenarios represent the two cases where the message will be used. Please see the FN section ‘Message Flow Between Nodes’ and Figures #2 ‘Successful Context Transfer after Call Begin’ and # 3 ‘Successful Context Transfer after ARU Connect’.

Alarms

Alarm name:

Not applicable

Conditions required to raise the alarm

Not applicable

Duration of the alarm

Not applicable

AQ1488mm.aa19

Directories

No directories are changed or added by this feature.

Commands

The commands QLT and QIT CS are changed by this feature. A new office options section is appended to the output of these commands.

Table of New/Modified Commands

Table 5-190 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QLT	CHANGED	N/A	CI
QIT CS	CHANGED	N/A	CI

Command name: QLT

Command type

NON-MENU

Command target

Unchanged.

Command availability

Unchanged.

Command description

The QLT command retrieves information about the hardware and software associated with a Logical Terminal Identifier (LTID). The feature SCM implements a new list of options named ‘OFFICE OPTIONS’. This list contains all features which are available on an office-wide basis and which are applicable to the line. If no such feature is available to the line, then the prompt ‘OFFICE OPTIONS’ does not appear.

Warnings

No warnings are changed or added by this feature.

Command syntax

Command syntax is not modified by this feature.

Parameter definitions

No changes are made to parameters.

Responses

Response

A new list of options is added to the QLT output. This list is named ‘OFFICE OPTIONS’ and contains the entry ‘SDS’ if the SDS feature is available to the line in universal mode.

Figure 5-109 LT response for an ISDN line when office-wide SDS is availabl

```
>qlt isdn 101
------------------------------------------------------------------------
LTID:  ISDN      101
SNPA: 613
DIRECTORY NUMBER:     7215161
LT GROUP NO: 0
LTCLASS:  BRAFS    DEFAULT LOGICAL TERMINAL: N
EKTS: N   CACH: N
BEARER SERVICE RESTRICTIONS:     NOPMD
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 1
LEN: HOST  00 1 00 04    TEI: DYNAMIC
CUSTGRP:        COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC
OFFICE OPTIONS:
SDS
   KEY       DN
   ---       --
     1       DN             7215161

   KEY     FEATURE
   ---     -------
      NONE
------------------------------------------------------------------------
```

Figure 5-110 QLT response for an ISDN line with SDSDENY line option

```
>qlt isdn 101
------------------------------------------------------------------------
LTID:  ISDN      101
SNPA: 613
DIRECTORY NUMBER:     7215161
LT GROUP NO: 0
LTCLASS:  BRAFS    DEFAULT LOGICAL TERMINAL: N
EKTS: N   CACH: N
BEARER SERVICE RESTRICTIONS:     NOPMD
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 1
LEN: HOST  00 1 00 04    TEI: DYNAMIC
CUSTGRP:        COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC SDSDENY

   KEY       DN
   ---       --
     1       DN             7215161

   KEY     FEATURE
   ---     -------
      NONE
------------------------------------------------------------------------
```

Figure 5-111 QLT response for an ISDN line with no office options applicable

```
>qlt isdn 101
------------------------------------------------------------------------
LTID:  ISDN      101
SNPA: 613
DIRECTORY NUMBER:     7215161
LT GROUP NO: 0
LTCLASS:  BRAFS    DEFAULT LOGICAL TERMINAL: N
EKTS: N   CACH: N
BEARER SERVICE RESTRICTIONS:     NOPMD
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 1
LEN: HOST  00 1 00 04    TEI: DYNAMIC
CUSTGRP:        COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC

   KEY       DN
   ---       --
     1       DN             7215161

   KEY     FEATURE
   ---     -------
      NONE
------------------------------------------------------------------------
```

Explanation:

Figure 5-109 shows a typical response after invoking command QLT, including the list of office options. Figure 5-110 shows the response after invoking command QLT when the SDSDENY line option is assigned to the line. Note that if there are no office options applicable to a line, the office option list will not appear, as shown in Figure 5-111.

System action:

Unchanged.

User action:

Unchanged.

Notes

The office option list will only appear when at least one office option is applicable to the line. As of NA006, there is only one office option that is applicable to ISDN lines: SDS.

When SDS offering is implicit from universal subscription, the line query commands will list SDS as being an office option if the following conditions are met:

- line type is supported
- line options incompatible with SDS are not assigned to the line (e.g., SDSDENY)
- SCM SOC is enabled

If these conditions are not met, the SDS option will not be shown as an office option in the output of line query commands.

Note that the customer group option SDSDENY does not affect the output of the line query commands. (e.g., if universal subscription is active and option SDSDENY is assigned to a customer group, then all lines part of this customer group will show the office-wide SDS option, even though SDS service will not be offered to lines from this customer group.)

Examples

Refer to Figure 5-109, Figure 5-110 and Figure 5-111.

Command name: QIT CS

Command type

NON-MENU

Command target

Unchanged.

Command availability

Unchanged.

Command description

The QIT CS command retrieves information about the hardware and software associated with a Logical Terminal Identifier (LTID). The feature SCM implements a new list of options named ‘OFFICE OPTIONS’. This list contains all features which are available on an office wide basis and which can be accessed by the user. If no such feature is available to the line, then the prompt ‘OFFICE OPTIONS’ does not appear.

Warnings

No warnings are changed or added by this feature.

Command syntax

Command syntax is not modified by this feature.

Parameter definitions

No changes are made to parameters.

Responses

Response

A new list of options is added to the QIT CS output. This list is named ‘OFFICE OPTIONS’ and contains the entry ‘SDS’ if the SDS feature is available to the line in universal mode.

Figure 5-112 QIT CS response for an ISDN line when office-wide SDS is available

```
>qit isdn 101 cs
------------------------------------------------------------------------
LTID:  ISDN      101
SNPA: 613
DIRECTORY NUMBER:     7215161
DPN GROUP NO: 0
LTCLASS:  BRAFS    DEFAULT LOGICAL TERMINAL: N
EKTS: N   CACH: N
BEARER SERVICE RESTRICTIONS:     NOPMD
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 1
LEN: HOST  00 1 00 04    TEI: DYNAMIC
GROUP:        COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC
OFFICE OPTIONS:
SDS

   KEY       DN
   ---       --
     1       DN             7215161

   KEY     FEATURE
   ---     -------
      NONE
------------------------------------------------------------------------
```

Figure 5-113 QIT CS response for an ISDN line with SDSDENY line option

```
>qit isdn 101 cs
------------------------------------------------------------------------
LTID:  ISDN      101
SNPA: 613
DIRECTORY NUMBER:     7215161
DPN GROUP NO: 0
LTCLASS:  BRAFS    DEFAULT LOGICAL TERMINAL: N
EKTS: N   CACH: N
BEARER SERVICE RESTRICTIONS:     NOPMD
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 1
LEN: HOST  00 1 00 04    TEI: DYNAMIC
GROUP:        COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC SDSDENY

   KEY       DN
   ---       --
     1       DN             7215161

   KEY     FEATURE
   ---     -------
      NONE
------------------------------------------------------------------------
```

Figure 5-114 QIT CS response for an ISDN line with no office options applicable

```
>qit isdn 101 cs
------------------------------------------------------------------------
LTID:  ISDN      101
SNPA: 613
DIRECTORY NUMBER:     7215161
DPN GROUP NO: 0
LTCLASS:  BRAFS    DEFAULT LOGICAL TERMINAL: N
EKTS: N   CACH: N
BEARER SERVICE RESTRICTIONS:     NOPMD
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 1
LEN: HOST  00 1 00 04    TEI: DYNAMIC
GROUP:        COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC

   KEY       DN
   ---       --
     1       DN             7215161

   KEY     FEATURE
   ---     -------
      NONE
------------------------------------------------------------------------
```

Explanation:

Figure 5-112 shows a typical response after invoking command QIT CS, including the list of office options. Figure 5-113 shows the response after invoking command QIT CS when the SDSDENY line option is assigned to the line. Note that if there are no office options applicable to a line, the office option list will not appear, as shown in Figure 5-114.

System action:

Unchanged.

User action:

Unchanged.

Notes

The office option list will only appear when at least one office option is applicable to the line. As of NA006, there is only one office option that is applicable to ISDN lines: SDS.

When SDS offering is implicit from universal subscription, the line query commands will list SDS as being an office option if the following conditions are met:

- line type is supported
- line options incompatible with SDS are not assigned to the line (e.g., SDSDENY)
- SCM SOC is enabled

If these conditions are not met, the SDS option will not be shown as an office option in the output of line query commands.

Note that the customer group option SDSDENY does not affect the output of the line query commands. (e.g., if universal subscription is active and option SDSDENY is assigned to a customer group, then all lines part of this customer group will show the office-wide SDS option, even though SDS service will not be offered to lines from this customer group.)

Examples

Refer to Figure 5-112, Figure 5-113 and Figure 5-114.

Alarms

No alarms are changed or added by this feature.

AR1501mm.aa16

This activity does not change or modify the existing MM interface. However, due to the fact that a new selector is being utilized to set up AIN response translation, it is important to provide example of Traver to show how translation table should be set up using the new selector HNPA 1 to perform 7-digit local number routing

Directories

None

Table of New/Modified Directories

Table 5-191 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Traver and Trnslvf

Table of New/Modified Commands

Table 5-192 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

No change

Command name:

Traver or Trnslvf

Command type

No change

Command target

No change

Command availability

No change

Command description

No change

Warning

No change

Command syntax

No change

Parameter definitions

Table 5-193 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

No change

Response

Explanation:

System action:

User action:

Notes

The purpose of the MM section is to show how the new selector HNPA 1 developed under activity AN1797

Examples

The following is the Traver example on the case when the SCP returns a 10-digit local number and the SSP only support 7-digit routing

```
traver l 6211091 n cdn na 6137239001 b
Warning: Routing characteristics are present.
         Originator must be able to send in
         characteristics specified.
TABLE RTECHAR
 . LECNA (CDN NA $) ( BC 3_1KHZ (CDN NA)$)$
TABLE LINEATTR
0 1FR NONE NT FR01 0 613 P621 L613 TSPS 10 NIL NILSFC LATA1 0 NIL NIL 00
N $
LCABILL OFF - BILLING DONE ON BASIS OF CALLTYPE
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
TABLE LENFEAT
TUPLE NOT FOUND
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
AIN Orig Attempt TDP: no subscribed trigger.
TABLE PXLAMAP
 . LECNA P621 ( XLA LECN)$
TABLE STDPRTCT
. Tuple not found. Default to old pretranslator name.
TABLE STDPRTCT
LECN ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
613 613 N NP 0 NA
TABLE HNPACONT
613 Y 932 2 ( 384) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 613 613 HNPA 1
TABLE HNPACONT
613 Y 932 2 ( 384) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
. 723 723 LRTE 433
AIN Info Collected TDP: no subscribed trigger.
TABLE TRIGGRP
OFCTRIG INFOANAL
. PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
AIN Info Analyzed TDP: trigger criteria not met.
 . SUBTABLE RTEMAP
 .  . Tuple not found. Default to old index.
 . SUBTABLE RTEREF
.  433 N D ISUPITOG 0 N N
 . EXIT TABLE RTEREF
EXIT TABLE HNPACONT
TABLE LCASCRCN
613 L613 ( 18) OPTL Y
 . SUBTABLE LCASCR
 . 723 723
TABLE PFXTREAT
OPTL NP N NP UNDT
```

```
TABLE CLSVSCRC
KEY NOT FOUND
DEFAULT IS TO LEAVE XLA RESULT UNCHANGED
TABLE EASAC
TUPLE NOT FOUND

+++ TRAVER: SUCCESSFUL CALL TRACE +++


DIGIT TRANSLATION ROUTES

1 ISUPITOG              7239001            ST

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 *OFLO
2 LKOUT
```

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1699mm.aa11

Directories

Table of New/Modified Directories

Table 5-194 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SYSDIR	CHANGED		BOTH	RES

Accessing directory:SYSDIR

To access

This directory is accessible at the CI level.

To return to CI

N/A.

Commands

Table of New/Modified Commands

Table 5-195 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SETDATE	CHANGED		SYSDIR
SETTIME	CHANGED		SYSDIR

Command name: SETDATE

Command type: NON-MENU

Command target: BOTH

Command availability: RES

Command description

SETDATE command will send out a warning message with a yes or no prompt to the map terminal if the table DSTTABLE is being used.

Warning:

There will be a warning message if the DSTTABLE is being used (See section 5.2.3.1).

Command syntax

SETDATE <DD> <MM> <YYYY>

Parameter definitions

Table 5-196 Parameter Definitions

PARAMETER	VALUE	DEFINITION
DD	N/A	no change
MM	N/A	no change
YYYY	1976 to 2039	no change

Responses

All responses are the same expect that a new warnng message will be outputted to the map terminal if the table DSTTABLE is being used.

Response

> **setdate** 2 2 2000
Warning: There is an automated TOD clock change request scheduled on:
1995/10/15 at 01:00 (see table DSTTABLE).
Do you want to proceed with this request?
Please confirm (“YES”,”Y”,”NO” or”N”):
> yes
Date is THU. 02/FEB/2000 14:53:52

Explanation:

This warning message is necessary because there might be a conflict with the SETDATE CI command and a entry in the table DSTTABLE.

System action:

User action:

Notes.

Examples

See section 5.2.3.1 Response.

Command name: SETTIME

Command type: NON-MENU

Command target: BOTH

Command availability: RES

Command description

SETTIME command will send out a warning message to the map terminal if the table DSTTABLE is being used.

Warning:

None

Command syntax

SETIME <HOUR> <MINUTE> [<TIMEZONE>]

Parameter definitions

Table 5-197 Parameter Definitions

PARAMETER	VALUE	DEFINITION
HOUR	N/A	no change
MINUTE	N/A	no change
TIMEZONE	1976 to 2039	no change

Responses

All responses are the same expect that a new warnng message will be outputted to the map terminal if the table DSTTABLE is being used.

Response

> **settime** 23 50
Warning: There is an automated TOD clock change request scheduled on:
1995/12/31 at 01:00 (see table DSTTABLE).
Do you want to proceed with this request?
Please confirm (“YES”,”Y”,”NO” or”N”):
> yes
Time is 23:50:00 on THU. 1995/11/16

Explanation:

System action:

User action:

Notes.

Examples

See section 7.2.3.1 Response.

Alarms

There is no change to alarms.

AR1705mm.aa09

Directories

Table of New/Modified Directories

Table 5-198 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
NETMAN	CHANGED		SUPERNODE	RES
FTPCI	CHANGED		SUPERNODE	RES

Accessing directory:

To access

NETMAN

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 5-199 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
LOOKUP	NEW		NETMAN
DNS	NEW		NETMAN
FTP	CHANGED		FTP
FTPOPEN	CHANGED		FTP

Command name: LOOKUP

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

Lookups information for a domain name.

Warning

Command syntax

LOOKUP <string>

Parameter definitions

Table 5-200 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<string>	domain name	The string representing the domain name or IP address to be looked up

Responses

Response

DNS_NAME_ERROR

Explanation:

Domain name not found.

System action: none

User action:

Configure name server with domain name.

Response

DNS_TEMPORARY_ERROR

Explanation:

Server busy unable respond at this time.

System action: none

User action:

Try the lookup again. Check network connectivity.

Notes

Some responses may be too long and may be truncated.

Examples

```
lookup bcarheb
Address 0: 47.128.9.202

Got Answer: 52 bytes
----------
  HEADER:
    opcode = DNS_OC_QUERY, id = 11, rcode =
DNS_RESPONSE_OK
   header flags: DNS_OP_RESPONSE, auth. answer, not
truncated
                  want recursion, recursion avail.
    questions = 1, answers = 1, authority records =
0, additional = 0
  QUESTION:
    BCARHEB.ott.bnr.ca.
    type = A, class = IN
  ANSWER: 1
    BCARHEB.ott.bnr.ca.
    type = A, class = IN, rd = 4, ttl = 28800
    IP address = 47.128.9.202
```

Command name: FTP

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

Starts FTP session.

Warning

Command syntax

FTP <domain or IP address>

Command type

User may now specify domain name or IP address to connect. Providing the resolver has been configured.

Parameter definitions

Table 5-201 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<domain or IP address>	string	The string representing the domain name or IP address.

Responses

See FTP commands AR1402

Notes

Examples

ftp ‘bcarheb.ott.bnr.ca.’

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1712mm.aa07

Directories

This feature affects only commands. No directory is affected.

Table of New/Modified Directories

Table 5-202 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Table of New/Modified Commands

Table 5-203 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
DISPLAY	CHANGED		PMUPGDIR
START	CHANGED		PMUPGDIR
HELP	CHANGED		PMUPGDIR

Command name: DISPLAY

Command type

NON-MENU

Command target

SUPERNODE

Command availability

NONRES

Command description

The DISPLAY command generates PMUPGRADE reports. The report generated is specified by the report_type parameter (Please refer to feature AR1305 for the original description of this command).

The new value “PLAN” is added as an option for report_type.

Warning

None.

Command syntax

Unchanged:

DISPLAY <report_type>

Parameter definitions

The following new value is added to the list of possible values for the report_type parameter.

Table 5-204 Parameter Definitions

PARAMETER	VALUE	DEFINITION
report_type	PLAN	generates a report containing the Upgrade Plan built by PMUPGRADE

The value “PLAN” specified for the report_type parameter in the command will cause generation of the Upgrade Plan report.

Responses

Response

> **display plan**

PMUPGRADE PLAN REPORT

Upgrade Layer: <layer number>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>

Upgrade Layer: <layer number>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>

PMUPGRADE:
>

Explanation:

DISPLAY PLAN generates the PM Upgrade Plan report. The report shows a number of consecutive Upgrade Layers, each containing a number of Upgrade Tasks. In each Task, the following data is shown:

3. The task number identifying it. This number does not indicate the task execution sequence.
4. The site where the node is located. This field is only filled for the node types which can be located at a remote site, otherwise it will be blank.
5. The loads: ‘From’ indicates the current datafilled load, ‘To’ indicates the new upgrade load. These loads apply to all nodes included in this task.
6. The nodes that are upgraded when this task executes.
7. The Ids of the pre-requisite tasks that need to be previously completed.

Upgrade Layers can be executed in the sequence shown in the report: all tasks in a layer can be completed before the next layer starts. Tasks within a given layer are independent from each other, they can be started in any order, consecutively or concurrently.

System action:

The system is ready to receive PMUPGRADE sub-commands.

User action:

The user can enter sub-commands available in the PMUPGRADE environment.

Notes

N/A

Examples

In the PMUPGRADE CI environment (user commands are in **bold** face):

Display a generated plan

This example shows the normal response displaying the generated plan.

PMUPGRADE:
>**display plan**

PMUPGRADE PLAN REPORT

Upgrade Layer: 1

TASK 1:
SITE:
LOADS: FROM ED705BC TO ED706BA
NODES: DTC 0
DTC 1
DTC 2
REQUIRES:

TASK 2:
SITE:
LOADS: FROM LRC04BF TO LRC06AO
NODES: LIU7 12
REQUIRES:

TASK 3:
SITE: REM0
LOADS: FROM RMM05A TO RMM06A
NODES: RMM 0
REQUIRES:

TASK 4:
SITE: REM1
LOADS: FROM RMM05A TO RMM06A
NODES: RMM 1
REQUIRES:

TASK 5:
SITE:
LOADS: FROM XRC04BG1TO XRC06AW
NODES: XLIU 11
REQUIRES:

```
Upgrade Layer: 2
---------------------

TASK 6:
SITE:       REM0
LOADS:   FROM ESR05BC   TO ESR06BA
NODES:   RCC 0
REQUIRES:TASK 3, 4

TASK 7:
SITE:       REM1
LOADS:   FROM CRI05BC    TO CRI06BA
            FROM MX77NG03TO MX77NH03
NODES:   RCC2 1
REQUIRES:TASK 3, 4


Upgrade Layer: 3
---------------------
TASK 8:
SITE:
LOADS:   FROM EDH05BC  TO EDH06AX
NODES:   DCH 0
REQUIRES:TASK 6, 7


Upgrade Layer: 4
---------------------
TASK 9:
SITE:
LOADS:   FROM ELI05BC     TO ELI06AX
NODES:   LTC 0
REQUIRES:Task 8


PMUPGRADE:
>
```

Plan not previously generated

This example shows the response in the case where no previous ‘start plan’ command was issued to generate the plan.

```
PMUPGRADE:
>display plan

Plan not generated. Please use START PLAN command first.
```

PMUPGRADE:
>

Command name: START

Command type

NON-MENU

Command target

SUPERNODE

Command availability

NONRES

Command description

This command allows the user to start execution of a phase in the PM Upgrade automated process (Please refer to feature AR1305 for the original description of this command).

The response to the ‘START FILECOPY’ command is changed with this feature. Also the new value ‘PLAN’ is added as an option for the ‘phase’ parameter.

Warning

None.

Command syntax

Unchanged:

START <phase>

Parameter definitions

The following new value is added to the list of possible values for the ‘phase’ parameter.

Table 5-205 Parameter Definitions

PARAMETER	VALUE	DEFINITION
phase	PLAN	The ‘PLAN’ phase generates the switch PM Upgrade plan.

Responses

Depending on the phase, a different dialog is conducted between the system and the user. The changed response to the ‘START FILECOPY’ command and the new response to the ‘START PLAN’ command are given in section “Examples” on page 530

Notes

The new ‘START PLAN’ command requires the ‘FILECOPY’ phase being previously run successfully with a ‘START FILECOPY’ command. If not the case, an error message will be issued to the user.

Examples

In the PMUPGRADE CI environment (user commands are in **bold** face):

Changed ‘START FILECOPY’ response

To illustrate the change to the response introduced by this feature, the following shows the response as it appears PREVIOUS TO THIS FEATURE. Areas of changed are in *italic* to show the change.

PMUPGRADE:
> start filecopy

Please insert load tape into drive S01T.
Ready to continue?
Please confirm (“Yes”, “Y”, “No”, or “N”)
> **yes**

Listing the distribution volumes.

DCH36A	CMR33AI5	EDH05AY	EDH03BX
ELI02CN	ENX04BF	ESR05BC	LTI35G
MX77MA21	MX77NF02	MPF36CJ	NRX04BD

Selecting load files from S01T.

LOAD FILE SELECTION REPORT

CURRENT LOADS	AUTO-SELECTED FILES	EXCLUDED
CMR33AI3	CMR33AI5	
DCH36A	Same Load	
ED704BD	**** NO REPLACEMENT ON TAPE*	
ELI02CM	ELIO2CN	

MX77MA20 *MX77MA21*
MX77NF02

INCLUDED LOADS

None

Accessing destination volumes: S01DPMLOADS.
Selecting Patch Files.
Checking for file duplicates and volume free space.
Creating the list of files to copy.
Copying load and patch files to destination volumes.
Adding new loads to PMLOADS table.

The FILECOPY phase is complete.
PMUPGRADE:
>

The response is CHANGED with this feature to appear as follows, changes are shown in *italic*:

PMUPGRADE:
> start filecopy
Please insert load tape into drive S01T.
Ready to continue?
Please confirm ("Yes", "Y", "No", or "N")
> **yes**
Listing the distribution volumes.

DCH36A	CMR33AI5	EDH05AY	EDH03BX
ELI02CN	ENX04BF	ESR05BC	LTI35G
MX77MA21	MX77NF02	MPF36CJ	NRX04BD

Selecting load files from S01T.
No replacement loadname found on distribution volume for ED704BD load.
Please enter replacement loadname or "S" (Same) or "Q" (Quit FILECOPY).
> ***EDH05AY***

MX77MA21, MX77NF02 found on distribution volume for MX77MA20 load.
Please select one of them or "Q" (Quit FILECOPY).
> ***MX77NF02***

LOAD FILE SELECTION REPORT

CURRENT LOADS	AUTO-SELECTED FILES	EXCLUDED
CMR33AI3	CMR33AI5	
DCH36A	Same Load	

ED704BD *EDH05AY*
ELI02CM ELIO2CN
MX77MA20 *MX77NF02*

INCLUDED LOADS

None

Accessing destination volumes: S01DPMLOADS.
Selecting Patch Files.
Checking for file duplicates and volume free space.
Creating the list of files to copy.
Copying load and patch files to destination volumes.
Adding new loads to PMLOADS table.

The FILECOPY phase is complete.
PMUPGRADE:
>
The example shows two new prompts introduced with this feature. These prompts are independent of the PMUPGRADE Confirmation mode. They request the user to uniquely identify a replacement load in the cases of:

- No replacement found on tape by the automatic selection or
- Multiple replacements found on tape.

The user specified replacement load must be found on the tape, otherwise the prompt will be redisplayed.

In the first case, the user has the choice to enter '**S**' instructing the system to keep the current datafilled load. To any of these prompts, entering 'Q' will cause the system to exit FILECOPY.

0.0.0.1 'START PLAN' response

The following shows the response given to the new 'START PLAN' command:

PMUPGRADE:
> start plan

Generating the PM Upgrade Plan.
Using results from FILECOPY generated on 1996/02/23 11:41:09.366 FRI.

The PLAN phase is complete.

PMUPGRADE:
>

Command name: HELP

Command type

NON-MENU

Command target

SUPERNODE

Command availability

NONRES

Command description

The HELP command lists and provides a summary description of all PMUPGRADE commands. Only the response is changed with this feature.

Warning

None.

Command syntax

HELP

Parameter definitions

This command takes no parameter.

Table 5-206 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

PRIOR TO THIS FEATURE, response to the HELP command is as follows, area of change is in *italic*:

PMUPGRADE:
> **help**

PMUPGRADE

The PMUPGRADE CI allows users to copy the load and patch files necessary to upgrade the peripherals in the office.

COMMAND	FUNCTION
HELP	List and describe all PMUPGRADE commands.
DISPLAY	Display one of the PMUPGRADE reports.
SET	Set the configurable data for PMUPGRADE.
START	Start a phase of PMUPGRADE.
QUIT	Exit the PMUPGRADE environment.

PMUPGRADE:
>

WITH THIS FEATURE, the response is changed to appear as follows, the change is shown in *italic*:

PMUPGRADE:
> **help**

PMUPGRADE

The PMUPGRADE CI allows users to prepare and plan for the upgrade of peripherals in the office.

COMMAND	FUNCTION
HELP	List and describe all PMUPGRADE commands.
DISPLAY	Display one of the PMUPGRADE reports.
SET	Set the configurable data for PMUPGRADE.
START	Start a phase of PMUPGRADE.
QUIT	Exit the PMUPGRADE environment.

PMUPGRADE:
>

Explanation:

The PMUPGRADE CI summary description text is changed.

Prior to this feature, the text indicated that only the FILECOPY phase was available. With this feature, the PLAN phase is included, therefore the text is changed to make it more general.

System action:

The system is ready to receive PMUPGRADE commands.

User action:

The user can enter commands available in the PM upgrade environment.

Notes

N/A

Examples

Given in “Responses” on page 533.

Alarms

Alarm name:

N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AR1713mm.ab04

Directories

Table of New/Modified Directories

Table 5-207 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SWUPGDIR	CHANGED	N/A	SUPER-NODE	NONRES

Accessing directory: SWUPGDIR

To access

To access SWUPGDIR from the CI environment for PM upgrades, enter:

```
>SWUPGRADE PM
```

Prompting is turned ON by default when entering “SWUPGRADE PM”.

To return to CI

To exit SWUPGDIR and return to the CI environment, enter:

```
>QUIT
```

or:

```
>CANCEL
```

Note: CANCEL will cancel the current switch PM upgrade; it must be used with caution.

Commands

Table of New/Modified Commands

Table 5-208 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CLEAR	CHANGED	N/A	SWUPGDIR
XFRFROM	CHANGED	N/A	SWUPGDIR
XFRONLY	CHANGED	N/A	SWUPGDIR
SET	CHANGED	N/A	SWUPGDIR
DISPLAY	CHANGED	N/A	PMUPGDIR

Command name: CLEAR, XFRFROM, XFRONLY

Command type

NON-MENU

Command target

SUPERNODE

Command availability

NONRES

Command description

CLEAR: Clears the specified table on the inactive side.

XFRFROM: Begins transferring tables from the specified table.

XFRONLY: Transfers only the specified table.

Warning

None.

Command syntax

Note: Please refer to the AR1803 feature description in NTP 297-8001-801 “North America DMS-100 Feature Description Manual” for more information.

Parameter definitions

Note: Please refer to the AR1803 feature description in NTP 297-8001-801 “North America DMS-100 Feature Description Manual” for more information.

Table 5-209 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

```
ERROR: This command is not available from this platform.
```

Explanation:

The command is disabled for the PM platform (i.e. “SWUPGRADE PM”).

System action:

None.

User action:

None.

Notes

These commands are provided by the SWUPGRADE framework and cannot be deleted from the SWUPGDIR directory. Although they are not appropriate for PM upgrades, they are used during ONPs via “SWUPGRADE CM”. Please refer to the AR1803 feature description in NTP 297-8001-801 “North America DMS-100 Feature Description Manual” for more information.

Examples

N/A

Command name: SET

Command type

NON-MENU

Command target

SUPERNODE

Command availability

NONRES

Command description

The SET command assigns a value to a SWUPGRADE PM environment variable. The “SWUPGRADE PM” CI increment established the following environment variables:

- TRACE_DEVICE: Holds the device name on which output messages are printed.
- SHIFT: Holds the status of the current PM upgrade shift.
- CONCURRENCY: Holds the limit of the number of PMs which can be upgraded concurrently.

Warning

None.

Command syntax

>SET <variable> <value>

Note: Please refer to the AR1803 feature description in NTP 297-8001-801 “North America DMS-100 Feature Description Manual” for more information.

Parameter definitions

Note: Please refer to the AR1803 feature description in NTP 297-8001-801 “North America DMS-100 Feature Description Manual” for more information.

Table 5-210 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<variable>	TRACE_DEVICE SHIFT CONCURRENCY	variable to set
<value>	STRING	value to assign to the specified variable

Responses

Response

For “SET SHIFT STARTED”:

```
ERROR: SHIFT variable must previously have been set to
FINISHED or ABORTED.
```

Explanation:

The PM upgrade shift could not be started because the SHIFT environment variable currently indicates the shift is not finished or aborted.

System action:

None.

User action:

None.

Response

For “SET SHIFT STARTED”:

```
ERROR: A step is currently being executed.
```

Explanation:

The shift is in the process of aborting and a step is still executing. A new shift cannot be started in this case.

System action:

None.

User action:

Wait until the shift has fully aborted (the STATUS command will indicate that the driver is paused), and reissue the “SET SHIFT STARTED” command.

0.0.0.2 Response

For “SET SHIFT FINISHED”:

```
ERROR: SHIFT variable must previously have been set to
STARTED.
```

Explanation:

The PM upgrade shift could not be finished because the SHIFT environment variable currently indicates the shift is not started.

System action:

None.

User action:

None.

Response

For “SET SHIFT FINISHED”:

```
ERROR: Shift cannot be finished until the current step has
completed.
```

Explanation:

No steps can be executing when the “SET SHIFT FINISHED” command is issued.

System action:

None.

User action:

Wait until the currently executing step has completed (the STATUS command will indicate that the driver is paused), and reissue the “SET SHIFT FINISHED” command.

Response

For “SET SHIFT ABORTED”:

```
ERROR: SHIFT variable must previously have been set to
STARTED or ABORTED.
```

Explanation:

The PM upgrade shift could not be aborted because the SHIFT environment variable currently indicates the shift is not started or already aborted.

System action:

None.

User action:

None.

Response

For “SET SHIFT ABORTED”:

```
SET SHIFT ABORTED cancelled.
```

Explanation:

The abort was not confirmed by the craftsperson.

System action:

None.

User action:

Reissue the “SET SHIFT ABORTED” command if appropriate, and confirm with “Y”.

Response

For “SET CONCURRENCY”:

```
Upgrade concurrency is UNLIMITED.
Upgrade concurrency is <value>.
```

Explanation:

The CONCURRENCY environment variable has been successfully set to "UNLIMITED" or another acceptable value.

System action:

None.

User action:

None.

Response

For "SET CONCURRENCY":

```
ERROR: <value> is not a positive integer or UNLIMITED.
```

Explanation:

The CONCURRENCY environment variable has not been set to the requested value because it is not a positive integer.

System action:

None.

User action:

Reissue the SET command with a valid CONCURRENCY value.

Notes

These commands are provided by the SWUPGRADE framework and cannot be deleted from the SWUPGDIR directory. Although they are not appropriate for PM upgrades, they are used during ONPs via "SWUPGRADE CM". Please refer to the AR1803 feature description in NTP 297-8001-801 "North America DMS-100 Feature Description Manual" for more information.

Examples

```
>SET TRACE_DEVICE MAP
```

```
>SET TRACE_DEVICE TTY0

>SET SHIFT STARTED
************************************************************
**                          NOTE                          **
**                          ----                          **
**  You are starting a shift to upgrade PMs in the office.  **
**  If you have not already done so, perform the procedure  **
**  "Starting a PM update shift" in the Peripheral Module   **
**  Software Release Document at this point.                **
**                                                          **
************************************************************

>SET SHIFT FINISHED
************************************************************
**                          NOTE                          **
**                          ----                          **
**  You are finishing a shift to upgrade PMs in the office. **
**  If you have not already done so, perform the procedure  **
**  "Finishing a PM update shift" in the Peripheral Module  **
**  Software Release Document at this point.                **
**                                                          **
************************************************************

>SET SHIFT ABORTED
WARNING: Aborting the PM upgrade shift will cause the
         in-progess task (if any) to be aborted.

Do you really wish to abort this shift?

************************************************************
**                          NOTE                          **
**                          ----                          **
**  You are aborting a shift to upgrade PMs in the office.  **
**  If you have not already done so, perform the procedure  **
**  "Finishing a PM update shift" in the Peripheral Module  **
**  Software Release Document at this point.                **
**                                                          **
************************************************************

>SET CONCURRENCY UNLIMITED
Upgrade concurrency is UNLIMITED.
```

```
>SET CONCURRENCY 5
Upgrade concurrency is 5.
```

Command name: DISPLAY

This command is under the PMUPGDIR.

Command type

NON-MENU

Command target

SUPERNODE

Command availability

NONRES

Command description

The DISPLAY command generates PMUPGRADE reports. The report generated is specified by the report_type parameter (Please refer to feature AR1305 and AR1712 for the original description and changes to this command).

Under the “DISPLAY PLAN” command, a new field is added to each task indicating its upgrade execution style (AUTOMATED vs. MANUAL).

Warning

None.

Command syntax

Unchanged:

DISPLAY <report_type>

Parameter definitions

Unchanged.

Table 5-211 Parameter Definitions

PARAMETER	VALUE	DEFINITION
report_type	PLAN	generates a report containing the Upgrade Plan built by PMUPGRADE

Responses

Response

> **display plan**

PMUPGRADE PLAN REPORT

Upgrade Layer: <layer number>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>
STYLE: <AUTOMATED | MANUAL>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>
STYLE: <AUTOMATED | MANUAL>

Upgrade Layer: <layer number>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>
STYLE: <AUTOMATED | MANUAL>

TASK <task number>:
SITE: <site name>
LOADS: FROM <cur_load1> TO <new_load1>
FROM <cur_loadN>TO <new_loadN>
NODES: <nodename1>
<nodename 2>
<nodenameN>
REQUIRES:TASK <task number1>, ..., <task numberN>
STYLE: <AUTOMATED | MANUAL>

PMUPGRADE:
>

Explanation:

A ‘STYLE’ field is added to the response. The ‘STYLE’ field indicates the way in which the task is executed in the upgrade execution phase. ‘AUTOMATED’ means that the upgrade task can be performed through internal function calls, no manual action is required. ‘MANUAL’ means that the upgrade task has to be performed manually.

System action:

No change.

User action:

The user can enter sub-commands available in the PMUPGRADE environment.

Notes

N/A

Examples

In the PMUPGRADE CI environment (user commands are in **bold** face):

Display a generated plan

This example shows the normal response displaying the generated plan.

```
PMUPGRADE:
>display plan

                PMUPGRADE PLAN REPORT

Upgrade Layer: 1
---------------------

TASK 1:
SITE:
LOADS:   FROM ED705BC    TO ED706BA
NODES:   DTC 0
         DTC 1
         DTC 2
REQUIRES:
STYLE:   MANUAL

TASK 2:
SITE:
LOADS:   FROM LRC04BF   TO LRC06AO
NODES:   LIU7 12
REQUIRES:
STYLE:   MANUAL

TASK 3:
SITE:      REM0
LOADS:   FROM RMM05A   TO RMM06A
NODES:   RMM 0
REQUIRES:
STYLE:   MANUAL
```

TASK 4:
SITE: REM1
LOADS: FROM RMM05A TO RMM06A
NODES: RMM 1
REQUIRES:
STYLE: MANUAL

TASK 5:
SITE:
LOADS: FROM XRC04BG1TO XRC06AW
NODES: XLIU 11
REQUIRES:
STYLE: MANUAL

Upgrade Layer: 2

TASK 6:
SITE: REM0
LOADS: FROM ESR05BC TO ESR06BA
NODES: RCC 0
REQUIRES:TASK 3, 4
STYLE: MANUAL

TASK 7:
SITE: REM1
LOADS: FROM CRI05BC TO CRI06BA
FROM MX77NG03TO MX77NH03
NODES: RCC2 1
REQUIRES:TASK 3, 4
STYLE: MANUAL

Upgrade Layer: 3

TASK 8:
SITE:
LOADS: FROM EDH05BC TO EDH06AX
NODES: DCH 0
REQUIRES:TASK 6, 7
STYLE: MANUAL

```
Upgrade Layer: 4
---------------------
TASK 9:
SITE:
LOADS:   FROM ELI05BC    TO ELI06AX
NODES:   LTC 0
REQUIRES:Task 8
STYLE:   AUTOMATED


PMUPGRADE:
>
```

Alarms

Alarm name: N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AR1733mm.aa09

Directories

N/A

Table of New/Modified Directories

Table 5-212 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory: N/A

To access

To return to CI

Commands

CFWREP

Table of New/Modified Commands

Table 5-213 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
CFWREP	NEW		N/A

Command name: CFWREP

Command type

NON-MENU

Command target

CM (MC68000 & MC88000)

Command availability

RES

Command description

The user will enter the request to update the CFW or CFX table by using the CFWREP command and supplying the FROM_DN and FWD_TO_DN.

Example:

> CFWREP 5551111 12126663123

The end user can be a human user at the MMI or an adjunct processor executing CI commands.

The from_dn for the CI must be seven digit North American Dialing Plan number, i.e. no MADN, ISDN, or other dialing plans. Bell Atlantic will use the CI primarily for basic POTS lines and lines with RES or CLASS features assigned.

The fwd_to_dn can be any number up to 30 digits. No other verification is done on the fwd_to_dn.

Warning

No warnings are issued by the CI. If a problem is encountered, and error message will be displayed to the user and the physical data in tables CFW or CFX will not be updated.

Command syntax

>help cfwrep

The CFWREP command is used to update Call Forward and

Call Transfer information by external applications.

COMMAND FORMAT: CFWREP <FROM_DN> <FWD_TO_DN>

Parameter definitions

All Parameters are NON-Optional.

Table 5-214 Parameter Definitions

PARAMETER	VALUE	DEFINITION
From Directory Number	Numeric	Seven Digit Number
To Directory Number	Numeric	Thirty Digit Register

Responses

Response

>cfwrep 5551212 5550000

CFWREP is currently SOC disabled.

>

Explanation:

The CI has not been enabled through SOC.

System action:

Returns the user to the current run level.

User action:

Must assign RTU to option MDC00050 and set MDC00050 state to ON.

Response

>cfwrep abcd 12345675

*** ERROR ***

CFWREP ABCD 12345675

|

TYPE OF FROM DIRECTORY NUMBER IS SEVEN_DIGIT_CODE

TYPE IS SEVEN_DIGIT_CODE TABLE OF 7
{N,1,2,3,4,5,6,7,8,9,0,B,C,D,E,F}'S

FROM DIRECTORY NUMBER: >

Explanation:

The second parameter must be a seven digit directory number, e.g. 5551212.

System action:

Prompts the user to re-enter the FROM DIRECTORY NUMBER.

User action:

Must re-enter the FROM DIRECTORY NUMBER or type ABORT.

Response

>cfwrep 5551212 abcdef

*** ERROR ***

CFWREP 5551212 ABCDEF |

TYPE OF TO DIRECTORY NUMBER IS THIRTY_DIGIT_REGISTER

TYPE IS THIRTY_DIGIT_REGISTER VECTOR OF UP TO 30 DIGIT'S

TO DIRECTORY NUMBER:

>

Explanation:

The second parameter must be a thirty digit register, e.g. 16135551212.

System action:

Prompts the user to re-enter the TO DIRECTORY NUMBER.

User action:

Must re-enter the TO DIRECTORY NUMBER or type ABORT.

Response

>cfwrep 5550000 16135551212

FROM_DN - Not a valid Directory Number

Call Forward data not updated.

>

Explanation:

The FROM DIRECTORY NUMBER has not been datafilled in the DNINV table.

System action:

Returns the user to the current run level.

User action:

Investigate. The user may have used the wrong DN. If not, the DN will have to be datafilled.

Response

>cfwrep 6210000 16135551212

FROM_DN is not Assigned to a Line

Call Forward data not updated.

>

Explanation:

The FROM DIRECTORY NUMBER has not been assigned to a line.

System action:

Returns the user to the current run level.

User action:

Investigate. The user may have used the wrong DN. If not, the line will have to be datafilled.

Response

>cfwrep 6211134 1234567

Tuple for from_DN not found in table CFW/CFX

Call Forward data not updated.

>

Explanation:

The FROM DIRECTORY NUMBER does not have Call Forward Assigned.

System action:

Returns the user to the current run level.

User action:

Investigate. The user may have used the wrong DN. If not, the line will need to have call forwarding assigned before the CI can be used.

Response

>cfwrep 7224120 16135551212

Update of Table CFW/CFX Failed

>

Explanation:

The writing of the Physical Data to the Table failed.

System action:

Returns the user to the current run level.

User action:

Investigate. This is returned only if there is a problem with the internal procedures writing to physical store. A CSR should be issued.

Notes

N/A

Examples

>cfwrep 7224120 16135551212

Table CFX Updated

>

Alarms

Alarm name: N/A

Conditions required to raise the alarm

Duration of the alarm

AR1765mm.aa17

Directories

Not applicable.

Table of New/Modified Directories

Table 5-215 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

Not applicable.

To access

Not Applicable.

To return to CI

Not applicable.

Commands

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Table of New/Modified Commands

Table 5-216 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

Command name:

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Command type

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Command target

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Command availability

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Command description

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Warning

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Command syntax

No new commands are introduced by this feature only existing SOC commands will be used and new responses added.

Parameter definitions

Table 5-217 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses for TEL00002

New responses will be added for some of the SOC commands involving the order code TEL00002 for Channelized Access functionality.

Response for Channelized Access Links in Use When Attempting to go from SOC ON to IDLE

To change the Channelized Access SOC state from ON to IDLE, the following command is used:

assign state idle to TEL00002

If there are Channelized Access links in use then the following text message will appear at the MAP:

All Channelized Access links must be offline in order to change the SOC state to IDLE. Transaction refused because of validation errors

Explanation:

If there are Channelized Access links are in use then the user should not be allowed to change the Channelized Access SOC state from ON to IDLE.

This response is visible on SUPERNODE.

System action:

The SOC state is not changed to soc_idle for Channelized Access.

User action:

The user should deactivate all Channelized Access links and attempt again.

Response for an Invalid Attempt to Activate Channelized Access Links

If the order code has not been activated and a person at the MAP attempts to activate Link Fault Sectionalization the following text message is produced.

> **Option TEL00002 must be turned ON before this link can be activated because it is equipped with Channelized Access.**

Explanation:

Displayed if the user attempts to activate a Channelized Access link without the corresponding order code activated.

This response is visible on SUPERNODE.

System action:

The Channelized Access link is not operational.

User action:

The user should change the SOC state Channelized Access from IDLE to ON and attempt the activate command again.

Responses for TEL00007

New responses will be added for some of the SOC commands involving the order code TEL00007 for Link Fault Sectionalization functionality.

Response for a Link Fault Sectionalization Test in Progress When Attempting to go from SOC ON to IDLE

To change the Link Fault Sectionalization SOC state from ON to IDLE, the following command is used:

assign state idle to TEL00007

If there is a Link Fault Sectionalization test in progress then the following text message will appear:

Link Fault Sectionalization test in progress. Need to terminate test in order to change the SOC state to IDLE.

Explanation:

If a Link Fault Sectionalization test is in progress then the user should not be allowed to change the Link Fault Sectionalization SOC state from ON to IDLE.

This response is visible on SUPERNODE.

System action:

The SOC state is not changed to soc_idle for Link Fault Sectionalization.

User action:

The user should stop the Link Fault Sectionalization test and attempt the command again.

Response for an Invalid Attempt to Activate Link Fault Sectionalization

If the order code has not been activated and a person at the MAP attempts to activate Link Fault Sectionalization the following text message is produced.

SOC option TEL00007 must be turned ON before this functionality is accessed.

Explanation:

Displayed if the user attempts to activate Link Fault Sectionalization without the corresponding order code activated.

This response is visible on SUPERNODE.

System action:

Link Fault Sectionalization is not operational.

User action:

The user should change the SOC state for Link Fault Sectionalization from IDLE to ON and attempt the command again.

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Not applicable.

Duration of the alarm

Not applicable.

AN1771mm.aa05

Directories

Table of New/Modified Directories

Table 5-218 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
DRAMREC	CHANGED	N/A	SUPERNODE,BRISC	RES

Accessing directory: DRAMREC

To access

To access DRAMREC from the CI environment, enter:

>DRAMREC

To return to CI

To return to the CI environment, enter:

>QUIT

Commands

Table of New/Modified Commands

Table 5-219 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ASSIGN	CHANGED	N/A	DRAMREC
ASSIGNDUMP	CHANGED	N/A	DRAMREC
DEBUG	CHANGED	N/A	DRAMREC
DISPLAY	CHANGED	N/A	DRAMREC
FIND	CHANGED	N/A	DRAMREC
HELP	CHANGED	N/A	DRAMREC
POSITION	CHANGED	N/A	DRAMREC
RECORD	CHANGED	N/A	DRAMREC
SITLOAD	CHANGED	N/A	DRAMREC

Command name:ASSIGN

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

Use the assign command to assign data to the dram speech and phrase data management tables. The parameters dram and block correspond to field DRAM and a block number in the tuple's BLKLIST vector in table DRAMS for the 16 minute EDRAM.

The block numbers datafilled in the BLKLIST vectors for the EDRAM with CARDTYPE PROM (and loaded with voice files as datafilled in table EDRAMINV) can be assigned speech or special information tone (SIT) data. The assign command cannot be used to put speech phrases onto RAM card types.

The block numbers datafilled in the BLKLIST vectors for the EDRAM with CARDTYPE RAM (and not loaded with any voice files by datafill in table EDRAMINV) can be assigned special information tone (SIT) data. The assign command cannot be used to put speech phrases on block numbers datafilled as CARDTYPE RAM.

The range of block numbers is increased from {0 to 7} to {0 to 31} for 16 minute EDRAM.

Removed response message "INVALID BLOCK NUMBER -- MUST BE BETWEEN 0 AND 7");

Warning

N/A

Command syntax

ASSIGN <dram> <phrasename> <length <block> <phraseno>

Parameter definitions

Table 5-220 Parameter Definitions

PARAMETER	VALUE	DEFINITION
dram	0 - 63	DRAM specifies the DRAM number of the 16 minute EDRAM datafilled in table DRAMS.
phrasename	1-16 characters	PHRASENAME can specify a speech phrase or a SIT data phrase. For PROM cardtypes, PHRASENAME specifies the name of a speech phrase or SIT data phrase made available on the EDRAM by the voice file loaded to the block(s). For RAM cardtypes, PHRASENAME specifies the SIT phrase name to assign to block number 0 or block number 1. For RAM cardtypes, SIT1 - SIT16 are available on block 0 with the assign command. For RAM cardtypes SIT17- SIT32 are available on block 1 with the assign command. Refer to table DRAMS to verify if the cardtype is PROM or RAM.
length	1-31	LENGTH specifies the operating time in seconds. SIT data phrases always have length 1.
block	0-31	BLOCK specifies the block number in a BLKLIST vector datafilled in table DRAMS. The block number must be on a PROM CARDTYPE for assigning speech data. The block number must be on a PROM or RAM CARDTYPE for assigning SIT data. Enter block number 0 or 1 for RAM CARDTYPEs. Enter the block number where the voice file with SIT data phrases or speech phrases has been loaded.

Table 5-220 Parameter Definitions

PARAMETER	VALUE	DEFINITION
phraseno	0-63	PHRASENO specifies an integer identifying the phrase to the DRAM controller. The phraseno for speech phrases ranges from 0 to 63. The phraseno for SIT data phrases ranges from 48-63 with RAM cardtypes and 8-39 with PROM cardtypes.

Responses

Response

UNKNOWN DRAM OR BLOCK

Explanation:

The dram number or block number specified for the dram is not in table DRAMS.

System action:

Aborts the command.

User action:

Verify the dram number and block number specified and retry the command.

Response

UNKNOWN BLOCK

Explanation:

The block number specified for the dram is not in table DRAMS.

System action:

Aborts the command.

User action:

Verify the block number specified and retry the command.

Response

UNKNOWN CARD

Explanation:

The card number associated with the dram and block number specified is not in table DRAMS.

System action:

Aborts the command.

User action:

Verify datafill in table DRAMS for the entire EDRAM. Verify the dram and block number specifed and retry the command.

Notes

Examples

```
>DRAMREC
DRAM:
>assign 5 sleeng170 4 0 23
PHRASE ASSIGNED ON CARD 1
>assign 6 sit1 1 3 8
PHRASE ASSIGNED ON CARD 4
>QUIT
```

Command name:ASSIGNDUMP

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

Use the assigndump command to produce a display of phrases and phrase information designated to each dram. The phrase information is displayed in the format of the DRAMREC ASSIGN command for PROM cardtypes and the format of the DRAMREC RECORD FORCE command for RAM cardtypes.

The display includes information for the increased range of block numbers from {0 to 7} to {0 to 31} and the increased range of card numbers from {0 to 8} to {0 to 32} for 16 minute EDRAM.

Warning

N/A

Command syntax

ASSIGNDUMP <function>

Parameter definitions

Table 5-221 Parameter Definitions

PARAMETER	VALUE	DEFINITION
function	ANNS	Displays only the phrase name of each phrase designated to each dram or edram.
	COMMANDS	Displays more information about the each phrase designated to each dram or edram than the ANNS parameter. Displays one of DRAMREC ASSIGN command syntax or DRAMREC RECORD command syntax for each phrase designated on each dram/ edram. The ASSIGN command syntax is shown for all PROM cardtypes and the RECORD command syntax (for FORCE recording) is shown for all RAM cardtypes.

Responses

Response

Explanation:

System action:

User action:

Examples

```
>DRAMREC
DRAM:
>ASSIGNDUMP ANNS
DRAMREC
ENG1
ENG2
ENG3
ENG4
ENG5
ENG6
ENG7
ENG8
```

```
ENG9
ENG0
SILENCE
MYPHRASE1
MYPHRASE2
SIT1
SIT2
SIT2
SIT1
SIT32
TST0
QUIT
>ASSIGNDUMP COMMANDS
DRAMREC
  ASSIGN     0 ENG1    1    0   48
  ASSIGN     0 ENG2    1    0   49
  ASSIGN     0 ENG3    1    0   50
  ASSIGN     0 ENG4    1    0   51
  ASSIGN     0 ENG5    1    0   52
  ASSIGN     0 ENG6    1    0   53
  ASSIGN     0 ENG7    1    0   54
  ASSIGN     0 ENG8    1    0   55
  ASSIGN     0 ENG9    1    0   56
  ASSIGN     0 ENG0    1    0   47
  RECORD SILENCE    1 NOPAD     4 0 0 FORCE
  RECORD MYPHRASE1 2 PAD      4   16 35 FORCE
  RECORD MYPHRASE2 2 PAD      4   15 30 FORCE
  RECORD SIT1    1 NOPAD     4    1 48 FORCE
  RECORD SIT2    1 NOPAD     4    1 49 FORCE
  ASSIGN     5 SIT2    1    0    9
  ASSIGN     5 SIT1    1    0    8
  ASSIGN     5 SIT32    1    1   39
  ASSIGN     5 TST0    5    0   40
QUIT
>QUIT
```

Command name:DEBUG

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

The debug command produces a display of the internal data mangament tables.

The display includes information for the increased range of block numbers from {0 to 7} to {0 to 31} and the increased range of card numbers from {0 to 8} to {0 to 32} for 16 minute EDRAM.

Warning

N/A

Command syntax

DEBUG <table> <dram/ann>

Parameter definitions

Table 5-222 Parameter Definitions

PARAMETER	VALUE	DEFINITION
table	ALL	Displays contents of the drams, unprot, speech, phrase, and track data management tables.
	DRAMS	Displays contents of the DRAMS data management table.
	UNPROT	Displays contents of the UNPROT data management table.
	SPEECH	Displays contents of the SPEECH data management table.
	PHRASE	Displays contents of the PHRASE data management table.
	TRACK	Displays contents of the TRACK. data management table.
<dram/ann>	0-63	Specify the number of a dram datafilled in table DRAMS.

Responses

Response

Explanation:

System action:

User action:

Examples

```
>DRAMREC
DRAM:

>DEBUG DRAMS 5

TABLE DRAMS
   CTLR   0   CLLI  72
   COD TYP CKT STA  ISV MB  SB  PB  OFL NEQ  BLK
    69   1   1   1   F   F   F   F   T   F
    69   2   1   1   F   F   F   F   T   F     0   1
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     2   3
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     4   5
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     6   7
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     8   9
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    10  11
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    12  13
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    14  15
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    16  17
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    18  19
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    20  21
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    22  23
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    24  25
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    26  27
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    28  29
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    30  31
     0   0   0   0   F   F   F   F   F   T

>DEBUG UNPROT 5

TABLE DRAMUNPROT
   USE TRK MEM
     0

>DEBUG SPEECH 5
```

```
TABLE DRAMSPEECH
   CRD SPA CHK
     1   0   0
     1   0   0
     2   0   0
     2   0   0
     3   0   0
     3   0   0
     4   0   0
     4   0   0
     9   0   0
     9   0   0
    11   0   0
    11   0   0
    13   0   0
    13   0   0
    15   0   0
    15   0   0
    17   0   0
    17   0   0
    19   0   0
    19   0   0
    21   0   0
    21   0   0
    23   0   0
    23   0   0
    25   0   0
    25   0   0
    27   0   0
    27   0   0
    29   0   0
    29   0   0
    31   0   0
    31   0   0

>DEBUG PHRASE 5

TABLE DRAMPHRASES
   INT BLK STR LEN
     0   0   0   0
     0   0   0   0
     0   0   0   0
....
     9   0   0   1
     8   0   0   1
    39   1   0   1
    40   0   0   5

>DEBUG TRACK 5

TABLE DRAMTRACKS
        PHR

>DEBUG ALL 5
```

```
TABLE DRAMS
   CTLR   0   CLLI  72
   COD TYP CKT STA  ISV MB  SB  PB  OFL NEQ  BLK
    69   1   1   1   F   F   F   F   T   F
    69   2   1   1   F   F   F   F   T   F     0   1
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     2   3
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     4   5
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     6   7
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F     8   9
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    10  11
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    12  13
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    14  15
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    16  17
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    18  19
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    20  21
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    22  23
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    24  25
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    26  27
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    28  29
     0   0   0   0   F   F   F   F   F   T
    69   2   1   1   F   F   F   F   T   F    30  31
     0   0   0   0   F   F   F   F   F   T

TABLE DRAMUNPROT
   USE TRK MEM
     0

TABLE DRAMSPEECH
   CRD SPA CHK
     1   0   0
     1   0   0
     2   0   0
     2   0   0
     3   0   0
     3   0   0
     4   0   0
     4   0   0
     9   0   0
     9   0   0
    11   0   0
```

```
    11   0   0
    13   0   0
    13   0   0
    15   0   0
    15   0   0
    17   0   0
    17   0   0
    19   0   0
    19   0   0
    21   0   0
    21   0   0
    23   0   0
    23   0   0
    25   0   0
    25   0   0
    27   0   0
    27   0   0
    29   0   0
    29   0   0
    31   0   0
    31   0   0

TABLE DRAMPHRASES
   INT BLK STR LEN
     0   0   0   0
     0   0   0   0
     0   0   0   0
....
     9   0   0   1
     8   0   0   1
    39   1   0   1
    40   0   0   5

TABLE DRAMTRACKS
        PHR

>QUIT
```

Command name:DISPLAY

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

The display command produces a display of the external and internal phrase names and the use of recording space on one or all of the cards of the specified dram number.

The display includes information for the increased range of card numbers from {0 to 8} to {0 to 32} for 16 minute EDRAM.

Warning

N/A

Command syntax

DISPLAY <dram> <card>

Parameter definitions

Table 5-223 Parameter Definitions

PARAMETER	VALUE	DEFINITION
dram	0-63	Specify a dram number which is datafilled in table DRAMS. Phrase information will be shown for each card on the dram datafilled in table DRAMS.
<card>	0-32	Specify the number of one of the cards datafilled in table DRAMS for the dram. Phrase information will be shown for only the specified card. This is an optional parameter.

Responses

Response

Explanation:

System action:

User action:

Examples

```
>DRAMREC
DRAM:
>DISPLAY 0

CARD  0  CTLR     SPACE: MAX CONTIG  0  TOTAL  0

CARD  1  PROM     SPACE: MAX CONTIG  0  TOTAL  0

PHRASE_EXT        PHRASE_INT     LENGTH
----------        ----------     ------
ENG1                  48            1
ENG2                  49            1
ENG3                  50            1
ENG4                  51            1
ENG5                  52            1
ENG6                  53            1
ENG7                  54            1
ENG8                  55            1
ENG9                  56            1
ENG0                  47            1

CARD  3 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD  5 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD  7 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD  9 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 11 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 13 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 15 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 17 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 19 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 21 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 23 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 25 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 27 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 29 PROM      SPACE: MAX CONTIG  0  TOTAL  0

CARD 31 PROM      SPACE: MAX CONTIG  0  TOTAL  0
```

```
>DISPLAY 0 1
CARD  1  PROM     SPACE: MAX CONTIG  0  TOTAL  0

PHRASE_EXT        PHRASE_INT     LENGTH
----------        ----------     ------
ENG1                  48            1
ENG2                  49            1
ENG3                  50            1
ENG4                  51            1
ENG5                  52            1
ENG6                  53            1
ENG7                  54            1
ENG8                  55            1
ENG9                  56            1
ENG0                  47            1

>DISPLAY 4

CARD  0  CTLR     SPACE: MAX CONTIG  0  TOTAL   0

CARD  1  RAM      SPACE: MAX CONTIG  31  TOTAL  31

PHRASE_EXT        PHRASE_INT     LENGTH
----------        ----------     ------
SILENCE               0            1
SIT1                 48            1
SIT2                 49            1

CARD  2  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  3  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  4  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  5  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  6  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  7  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  8  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD  9  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 10  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 11  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 12  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 13  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 14  RAM      SPACE: MAX CONTIG 31  TOTAL  31
```

```
CARD 15  RAM      SPACE: MAX CONTIG  7  TOTAL  13

PHRASE_EXT        PHRASE_INT     LENGTH
----------        ----------     ------
MYPHRASE1             35            4


CARD 16  RAM      SPACE: MAX CONTIG 10  TOTAL  13

PHRASE_EXT        PHRASE_INT     LENGTH
----------        ----------     ------
MYPHRASE2             30            4

CARD 17  RAM      SPACE: MAX CONTIG 13  TOTAL  13

CARD 18  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 19  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 20  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 21  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 22  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 23  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 24  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 25  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 26  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 27  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 28  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 29  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 30  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 31  RAM      SPACE: MAX CONTIG 31  TOTAL  31

CARD 32  RAM      SPACE: MAX CONTIG 31  TOTAL  31

>QUIT
```

Command name:FIND

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

The find command produces a display of all occurrences of the specified phrase name from all of the datafilled drams and edrams.

The display includes information for the increased range of card numbers from {0 to 8} to {0 to 32} for 16 minute EDRAM.

Warning

N/A

Command syntax

FIND <phrasename>

Parameter definitions

Table 5-224 Parameter Definitions

PARAMETER	VALUE	DEFINITION
phrasename	1-16 characters	Specify the name of a phrase that has been assigned or recorded. The phrase name may also be part of an announcement..

Responses

Response

Explanation:

System action:

User action:

Examples

```
>DRAMREC
DRAM:
>FIND ENG3

DRAM  CARD   TYPE    LENGTH
----  ----  ------   ------
0      1    PROM         1

>FIND SIT1

DRAM  CARD   TYPE    LENGTH
----  ----  ------   ------
  4      1  RAM          1
  5      1  PROM         1

>QUIT
```

Command name:HELP

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

The help command produces a brief display of all online documentation for the DRAM directory.

The display for the record command has been changedto show the larger range of block numbers and card numbers for 16 minute EDRAM.

Warning

N/A

Command syntax

HELP <command_name>

Parameter definitions

Table 5-225 Parameter Definitions

PARAMETER	VALUE	DEFINITION
command_name	quit assign assigndump record playback position erase connect conn disconnect disc display find debug annsdebug sitload	Specify the name of a command that can be found in the DRAM directory that is created on entering DRAMREC.

Responses

Response

Explanation:

System action:

User action:

Examples

```
>DRAMREC
DRAM:
>HELP QUIT
Parameter is: < nlevels | incrname | ALL >
>HELP ASSIGN
ASSIGN: DATAFILL THE MEMORY MANAGEMENT TABLES FOR PROMS WITH SIT AND
SPEECH DATA
 BUT FOR RAMS WITH SIT DATA ONLY
Parms: <DRAM> {0 TO 63}
       <PHRASENAME> {(otherwise)}
       <LENGTH> {1 TO 31}
       <BLOCK> {0 TO 31}
       <PHRASENO> {0 TO 63}
>HELP ASSIGNDUMP
ASSIGNDUMP: DISPLAY ANN STRINGS IN ASSIGN COMMAND MODE
Parms: <FUNCTION> {COMMANDS,
                   ANNS}
>HELP RECORD
RECORD: DEFINE AND RECORD A PHRASE.
  DO NOT USE OPTIONAL PARAMETERS FOR NORMAL RECORDING.
  FOR FORCE RECORDING:
    - USE ALL OPTIONAL PARAMETERS.
    - USE INTPHRASE BETWEEN 9 AND 39.
Parms: <PHRASENAME> {(otherwise)}
       <LENGTH> {1 TO 31}
       <PAD> {PAD,
              NOPAD}
       [<DRAM> {0 TO 63}]
       [<CARD> {1 TO 32}]
       [<INTPHRASE> {0 TO 63}]
       [<FORCE> {FORCE}]
>HELP PLAYBACK
PLAYBACK :PLAYBACK A DRAM PHRASE OVER HSET OR JACK
Parms: <DRAM> {0 TO 63}
       <PHRASENAME> {(otherwise)}
>HELP POSITION
POSITION: RECORD A PHRASE AT A GIVEN POSITION IN MEMORY
Parms: <PHRASENAME> {(otherwise)}
       <LENGTH> {1 TO 31}
       <PAD> {PAD,
              NOPAD}
       [<BLOCK> {0 TO 31}]
       [<STARTPOS> {1 TO 31}]
>HELP ERASE
ERASE: DELETE A PHRASE DEFINITION
Parms: <DRAM> {0 TO 63}
       <PHRASENAME> {(otherwise)}
>HELP CONNECT
```

```
CONNECT: CONNECT A TRUNK TO A DRAM FOR RECORDING
Parms: <DRAM> {0 TO 63}
       <TRUNKCLLI> {(otherwise)}
       <MEMBER> {0 TO 255}
>HELP CONN
CONNECT: CONNECT A TRUNK TO A DRAM FOR RECORDING
Parms: <DRAM> {0 TO 63}
       <TRUNKCLLI> {(otherwise)}
       <MEMBER> {0 TO 255}
>HELP DISCONNECT
DISCONNECT: DISCONNECT THE RECORDING TRUNK
>HELP DISC
DISCONNECT: DISCONNECT THE RECORDING TRUNK
>HELP DISPLAY
DISPLAY: DISPLAY THE PHRASE CONTENTS OF SPEECH MEMORY
Parms: <DRAM> {0 TO 63}
       [<CARD> {0 TO 32}]
>HELP FIND
FIND: LIST ALL OCCURENCES OF A PHRASE
Parms: <PHRASENAME> {(otherwise)}
>HELP DEBUG
DEBUG: DISPLAY THE CONTENTS OF THE DRAM TABLES
Parms: <TABLE> {ALL,
                DRAMS,
                UNPROT,
                SPEECH,
                PHRASE,
                TRACK}
       <DRAM/ANN> {0 TO 63}
>HELP ANNSDEBUG
ANNSDEBUG: PRINT CONTENTS OF INTERNAL ANNS TABLES
>HELP SITLOAD
SITLOAD :PUTS SPECIAL INFO. TONES IN RAM
Parms: <DRAM> {0 TO 63}
>QUIT
CI:
>HELP DRAMREC
DIGITAL RECORDED ANNOUNCEMENT MACHINE RECORD UTILITY
QUIT: QUIT THE DRAM RECORD UTILITY
ASSIGN: DATAFILL THE MEMORY MANAGEMENT TABLES FOR PROMS WITH SIT AND
SPEECH DATA
 BUT FOR RAMS WITH SIT DATA ONLY
ASSIGNDUMP: DISPLAY ANN STRINGS IN ASSIGN COMMAND MODE
RECORD: DEFINE AND RECORD A PHRASE.
  DO NOT USE OPTIONAL PARAMETERS FOR NORMAL RECORDING.
  FOR FORCE RECORDING:
    - USE ALL OPTIONAL PARAMETERS.
    - USE INTPHRASE BETWEEN 9 AND 39.
PLAYBACK :PLAYBACK A DRAM PHRASE OVER HSET OR JACK
POSITION: RECORD A PHRASE AT A GIVEN POSITION IN MEMORY
ERASE: DELETE A PHRASE DEFINITION
CONNECT: CONNECT A TRUNK TO A DRAM FOR RECORDING
DISCONNECT: DISCONNECT THE RECORDING TRUNK
DISPLAY: DISPLAY THE PHRASE CONTENTS OF SPEECH MEMORY
FIND: LIST ALL OCCURENCES OF A PHRASE
```

```
DEBUG: DISPLAY THE CONTENTS OF THE DRAM TABLES
ANNSDEBUG: PRINT CONTENTS OF INTERNAL ANNS TABLES
SITLOAD :PUTS SPECIAL INFO. TONES IN RAM
```

Command name:POSITION

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

Use the position command to record a speech phrase at a specified position on the dram using a trunk headset. The position command can be used with block numbers that are datafilled as cardtype RAM in table DRAMS for the 16 minute EDRAM.

The position command has been changed to include the larger range of block numbers {0 to 32} for 16 minute EDRAM.

The response message “INVALID BLOCK NUMBER -- MUST BE BETWEEN 0 AND 7” has been removed.

Warning

N/A

Command syntax

POSITION <phrasename> <length> <pad> <block> <startpos>

Parameter definitions

Table 5-226 Parameter Definitions

PARAMETER	VALUE	DEFINITION
phrasename	1-16 characters	PHRASENAME can specify a speech phrase.
length	1-31	LENGTH specifies the operating time in seconds.
pad	pad nopad	PAD specifies that the 6 db pad is inserted in the recording circuit for optimum speech response. NOPAD specifies that the 6db pad is NOT inserted.
block	0-31	BLOCK specifies the block number in a BLKLIST vector datafilled in table DRAMS. The block number must be on a RAM cardtype for recording speech on a 16 minute EDRAM.
startpos	1-31	STARTPOS specifies the number of seconds from the start of the block where the phrase is to be recorded.

Responses

Response

UNKNOWN BLOCK

Explanation:

The block number specified for the dram is not in table DRAMS.

System action:

Aborts the command.

User action:

Verify the block number specified and retry the command.

Examples

```
>DRAMREC
DRAM:
>CONNECT 4 HSET 0
CONNECTION MADE
>POSITION MYPHRASE1 PAD 2 15 9
RECORDING ON DRAM 4
USE TRUNK HSET MEMBER 0
>QUIT
```

Command name:RECORD

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

The record command can be used for normal recording or force recording.

The term normal recording refers to recording a speech phrase onto the dram or edram memory using a trunk headset connected to the dram or edram controller. The CONNECT command must be issued prior to the RECORD command for normal recording. For normal recording, only specify the parameters phrasename, length, and pad.

The term force recording refers to defining a speech phrase that already resides on the dram or edram memory card and only needs to be defined to be recognized as a valid phrase for creating announcements. A trunk headset cannot be connected to any dram or edram controller when using the force option. Use the DISCONNECT command if a trunk headset has been connected. For force recording specify all of the parameters.

The record command can be used with block numbers that are datafilled as cardtype RAM in table DRAMS for the 16 minute EDRAM.

The record command has been changed to include the increased range of card numbers {0 to 33} for 16 minute EDRAM.

Warning

N/A

Command syntax

RECORD <phrasename><length><pad><dram> <card> <intphrase> <force>

Parameter definitions

Table 5-227 Parameter Definitions

PARAMETER	VALUE	DEFINITION
phrasename	1-16 characters	PHRASENAME can specify a speech phrase for normal recording. PHRASENAME can specify a speech phrase. Use the assign command for SIT data phrases.
length	1-31	LENGTH specifies the operating time in seconds.
pad	pad nopad	PAD specifies that the 6 db pad is inserted in the recording circuit for optimum speech response. NOPAD specifies that the 6db pad is NOT inserted.
dram	0-63	DRAM specifies the DRAM number of the dram/edram datafilled in table DRAMS. Specify DRAM for force recording. Do not specify DRAM for normal recording.
card	1-32	Specify card number for force recording. CARD specifies the number of a dram card datafilled in table DRAMS for the specified dram number. Do not specify CARD for normal recording.
intphrase	0-63	INTPHRASE specifies the internal phrase number. It is an integer identifying the phrase to the dram/ edram controller. Specify an integer between 9 - 39 for force recording. Do not specify INTPHRASE for normal recording.
force	force	Specify force for force recording. Do not specify FORCE for normal recording.

Responses

Response

MUST USE RAM OR EEPROM CARDTYPE FOR RECORDING

Explanation:

The CARDTYPE specified in table DRAMS for the dram CARD number is not datafilled as RAM or EEPROM. The record command can be used for RAM CARDDTYPE for 16 minute EDRAM. Do not use the record command with PROM CARDTYPE.

System action:

Aborts the command.

User action:

Verify the block number specified and the corresponding CARDTYPE in table DRAMS and retry the command.

Response

DO NOT USE CARD NUMBER FOR NORMAL RECORDING.

Explanation:

The parameter CARD has been specified and the parameter FORCE has not been specified.

System action:

Aborts the command.

User action:

Verify the type of recording that is required. Specify the CARD number for force recording. Do not specify the CARD number for normal recording. Retry the command.

Examples

```
>DRAMREC
DRAM:
>CONNECT 4 HSET 0
CONNECTION MADE
>RECORD MYPHRASE1 2 PAD
RECORDING ON DRAM 4
CARD NUMBER:16
USE TRUNK HSET MEMBER 0
>DISCONNECT
>RECORD MYPHRASE1 2 PAD 4 16 35 FORCE
PHRASE RECORDED ON CARD :16
>QUIT
```

Command name:SITLOAD

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

Do not specify the sitload command for 16 minute EDRAM.

For any single 16 minute EDRAM, virtual memory cards designated as CARDTYPE PROM in table DRAMS can have any block on the EDRAM card loaded with SIT data with an annoucement load file (for example, ESTD0AA, FSTD0BA, ASTD0AB, EMCCS0CA). Datafill table EDRAMINV with the file name and use the LOADPM command from the map at the PM level.

For any single 16 minute EDRAM, the SIT data is readily available from block numbers 0 and 1 when all of the virtual cards for the EDRAM have been designated as CARDTYPE RAM in table DRAMS.

Use the ASSIGN command to define the SIT data and make it available for creating announcements.

Warning

N/A

Command syntax

SITLOAD <dram>

Parameter definitions

Table 5-228 Parameter Definitions

PARAMETER	VALUE	DEFINITION
dram	0-63	DRAM specifies the DRAM number of the dram or 4 minute edram datafilled in table DRAMS.

Responses

Response

SITLOAD NOT NEEDED FOR 1X80BA EDRAM

Explanation:

The CARDCODE specified in table DRAMS for the specified DRAM number is datafilled 1X80BA. Do not specify SITLOAD for 16 minute EDRAM card 1X80BA.

System action:

Aborts the command.

User action:

Verify the DRAM number specified and the corresponding CARDCODE in table DRAMS. Retry the command if the dram number represents a dram or a 4 minute EDRAM 1X80AA.

Examples

```
>DRAMREC
DRAM:
>SITLOAD 5
SITLOAD NOT NEEDED FOR 1X80BA EDRAM5
>QUIT
```

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1788mm.aa10

Directories

Table of New/Modified Directories

Table 5-229 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
CPSTATUSDIR	CHANGED		BOTH	RES
SCHEDMAPDIR	NEW		BOTH	RES

Accessing directory: CPSTATUSDIR

To access

MAPCI; MTC; CPSTATUS

To return to CI

QUIT ALL

Accessing directory: SCHEDMAPDIR

To access

MAPCI; MTC; CPSTATUS; SCHEDMAP

To return to CI

QUIT ALL

Commands

Table of New/Modified Commands

Table 5-230 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SCHEDMAP	NEW		SCHEDMAPDIR

Command name:SCHEDMAP

Command type

MENU

Command target

BOTH, OTHER: XA-Core.

Command availability

RES

Command description

SCHEDMAP is a new MAP level that has been created by splitting the CPSTATUS MAP level into two portions. SCHEDMAP contains the scheduler class utilization or occupancy information that previously existed on the second line of CPSTATUS.

SCHEDMAP displays Scheduler Occupancies on 68000-series switches, and Scheduler Utilizations on BRISC switches.

Scheduler Occupancy is defined as the percentage of the total CPU time that a scheduler class is using.

Scheduler Utilization is defined as the percentage of CPU time used by a schedulser class as a percentage of its allocation. The Allocation of a scheduler class is the amount of CPU time guaranteed to that class when the switch is at capacity.

(NOTE: Discriptions of the fields in SCHEDMAP can be taken from the documentation for CPSTATUS from previous releases. The fields in SCHEDMAP are the same fields previously contained in the second line of the CPSTATUS MAP.)

Warning

None.

Command syntax

SchedMap

(i.e. Just enter “SCHEDMAP”. Very simple.)

Parameter Definitions

Table 5-231 Parameter Definitions

PARAMETER	VALUE	DEFINITION

The SCHEDMAP command takes no parameters.

Responses

In response to the command “SCHEDMAP”, the SCHEDMAP MAP screen should be displayed on the user’s screen. If the user enters anything to the left of the “SCHEDMAP” command, the following message will be generated:

SchedMap -- Display scheduler-based performance information

Any response other than this indicates a software failure and should be investigated by NORTEL support personnel.

See the FN of this feature for more information about the structure of the SCHEDMAP MAP level.

Response

The following is replicated from the FN for this feature.

Figure 5-115 MAP Screen for the SCHEDMAP sublevel on BRISC switches

```
 CM      MS     IOD     Net      PM     CCS     MTX     Trks    Ext     APPL
 CM Flt  Clock     .       .     PMLOAD          3CSPM    8 CC   1 Min
   M       M                                     *C*     *C*     *C*
CSCHEDMAP
 0 Quit      CATMP/HR CAP ENGCATMP MAXCATMP COMPLEX CCOVRLD ENGLEVEL IDLE
 2 Parms       225560  75   300000   340000     212     OFF    BELOW  YES
 3
 4            SCHED FORE MAINT  DNC AUXCP   OM GTERM  BKG NETM SNIP
 5              108   13    17    0     0    0    15  645    0    0
 6
 7
 8
 9
10
11
12
13
14

18
   ADMIN
 Time  12:33  >

CI>mapci;mtc;mtxperf;parms
```

Figure 5-116 MAP Screen for the SCHEDMAP sublevel on 68000-series switches (sample)

```
 CM      MS     IOD     Net      PM     CCS     MTX     Trks    Ext     APPL
 CM Flt  Clock     .       .     PMLOAD          3CSPM    8 CC   1 Min
   M       M                                     *C*     *C*     *C*
CSCHEDMAP
 0 Quit      CATMP/HR CPOCC CPAVAIL ENGLEVEL CCOVRLD IDLE
 2 Parms       112560    45    28     BELOW    OFF    YES
 3
 4            SCHED FORE MAINT  DNC AUXCP   OM GTERM  BKG NETM SNIP
 5              3    3     3    0     0    2     3    7    0    0
 6
 7
 8
 9
10
11
12
13
14
15
16


   ADMIN
 Time  12:33  >

CI>mapci;mtc;mtxperf;parms
```

Explanation:

System action:

No system actions (other than the display of the map level) are caused by the execution of this command.

User action:

View the MAP screen.

Notes

The “Parms” command displayed as option 2 on the SCHEDMAP MAP level is the same Parms command that can be run from CPSTATUS. The exact same output will be generated.

Examples

There is only one example of this command’s execution, which has been described above.

AR1791mm.aa20

Directories

Not applicable.

Table of New/Modified Directories

Table 5-232 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

TRAVER, TRNSLVF

Table of New/Modified Commands

Table 5-233 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	CHANGED		CI
TRNSLVF	CHANGED		MAPCI

Command name:

TRAVER

Command type

NON-MENU.

Command target

SUPERNODE.

Command availability

RES.

Command description

The TRAVER (translation verification) tool now supports the following trunks encountering AIN triggers:

- Outgoing CAMA (OC)
- SuperCAMA (SC)
- Operator Incoming (OI)
- Operator (OP)

TRAVER is enhanced to support SC LEAS with the AINCHG option for post query processing. It displays post query procesing using table TRKLATA, table DNPIC or table DNLPIC and the DN being billed.

Warning

None.

Command syntax

The syntax for SC LEAS trunk with the AINCHG option for post query processing is as follows:

TRAVER TR <SCTRUNKCLLI> **N CDN NA** < CalledPartyid > **AINCHG** < Charge_number_from_SCP> **AINRES R01 {AR, CONT} B N ST** <Billing_number> **ST**

The various option used with TRAVER above are existing options. This feature adds the support of existing option AINCHG for SC LEAS trunk:

- Bold text are key words.
- For details of the following options -"N CDN NA", "AINRES R01 { AR, CONT}, please refer to AR0449: Enhanced TRAVER tool for AIN Call Processing.
- For details of the options "N ST", please refer to document Digital Switching Systems DMS - 100 Family General Feature Description NTX710AA - LATA Equal Access System
- <> Indicates values provided by the user.
  - — SCTRUNKCLLI is a incoming or 2 way SC Trunk clli datafilled in table clli.
  - — CalledPartyid is any 7 or 10 digits DN that the call is to be terminated to.
  - — Charge_number_from_SCP is any 10 digits.

— Billing_number is as before. It is not modified in any way by this feature. .

Parameter Definitions

Not applicable.

Command name:

TRNSLVF

Command type

MENU.

Command target

SUPERNODE.

Command availability

RES.

Command description

The TRNSLVF (translation verification) tool now supports the following trunks encountering AIN triggers:

- Outgoing CAMA (OC)
- SuperCAMA (SC)
- Operator Incoming (OI)
- Operator (OP)

TRNSLVF is not enhanced to support SC LEAS with the AINCHG option for post query processing due to existing post query processing limitations with this tool. .

Warning

None.

Command syntax

Not applicable.

Parameter Definitions

Not applicable.

Responses

Not applicable.

Response

Not applicable.

Explanation:

System action:

User action:

Notes

The TRAVER and TRNSLVF tools will now allow any of the trunks listed in “Command description” on page 600 to encounter either the N11 or PODP (Public Office Dialing Plan) trigger.

Examples

The following TRAVER examples are provided:

- OI -> Triggers PODP
- OP -> Triggers OPDP
- SC -> Triggers PODP
- SC LEAS -> TRIGGER PODP -> AR

OI -> Triggers PODP

The TRAVER is as follows for a call incoming on OI trunk, triggers PODP. The datafilled PODP trigger is 6706218917.

Table 5-234 TRAVER : OI -> PODP Trigger

```
TABLE TRKGRP
OIMFIC OI 56 TLD NCRT NIL VERI NSCR 613 NLCL CV Y 5 6 N
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
TABLE STDPRTCT
VERI ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . 670 670 N DD 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 Y 932 2 ( 384) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 670 670 HNPA 0
 . 6218 6219 DN 613 621
AIN Info Collected TDP: no subscribed trigger.

TABLE TRIGGRP
OFCTRIG INFOANAL
. N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
 .  . TABLE TRIGDIG
 .  . PODPDIG PODP 6706218917 PODP EVENT TCAP R01 SS7 AINJAZZ DFLT (POTUSE CPC) $
 .  .  . TABLE C7GTTYPE
 .  .  . AINJAZZ ANSI7 3 $
 .  .  . TABLE C7GTT
 .  .  . AINJAZZ 6706218917 6706218917 SSNONLY (AINTEST) $
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++

AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++
```

The TRAVER for an Incoming calls on an OC trunk would be similar.

OP -> Triggers PODP

Incoming calls on OP trunk will trigger only if the option ‘NRMLTRAF’ is present. The datafilled PODP trigger in this case is 6706218917.

Table 5-235 TRAVER : OP -> PODP Trigger

```
TRAVER TR OPSCMF2WA 6706218917 b
TABLE TRKGRP
OPSCMF2WA OP 0 TLD NCRT NIL MIDL COMB MIX REV TERMHOLD N 2W P621 NSCR 613 LCL CV
   Y 5 7 N (NRMLTRAF ) $
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
TABLE STDPRTCT
P621 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
. 670 670 N DD 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 Y 932 2 ( 384) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 670 670 HNPA 0
 . 6218 6219 DN 613 621
AIN Info Collected TDP: no subscribed trigger.
TABLE TRIGGRP
OFCTRIG INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
 .  . TABLE TRIGDIG
 .  . PODPDIG PODP 6706218917 PODP EVENT TCAP R01 SS7 AINJAZZ DFLT (POTUSE CPC) $
 .  .  . TABLE C7GTTYPE
 .  .  . AINJAZZ ANSI7 3 $
 .  .  . TABLE C7GTT
 .  .  . AINJAZZ 6706218917 6706218917 SSNONLY (AINTEST) $
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++

AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information

+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++
```

SC -> Triggers PODP

The TRAVER of the leg of the call from SC -> PODP is shown in "TRAVER : SC -> PODP Trigger" on page 606. The TRAVER is same for LEAS and non LEAS.

In this example, the call is originated from DN 6218918. The datafilled PODP trigger is 6706218917.

Table 5-236 TRAVER : SC -> PODP Trigger

```
traver tr sc2wb 2288917 b n st 06218918 st
TABLE TRKGRP
SC2WB SC 0 TLA NCRT NIL N 613 TCA3 NONE DD ONHOOK ONHOOK 5 5 5 2W MIDL 0 BELL
   REGULAR CAMA NONE REV Y Y $
TABLE STDPRTCT
TCA3 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . 2 612 N DD 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 932 2 ( 386) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 228 228 HRTE 6
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
AIN Info Collected TDP: no subscribed trigger.
TABLE TRIGGRP
OFCTRIG INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
 . N11 ( DG N11TRAF)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPTRAF)$ NIL
Trigger R01 PODP is applicable to office.
 . PODP ( DG SCPODP)$ NIL
Trigger R01 PODP is applicable to office.
```

Table 5-236 TRAVER : SC -> PODP Trigger

```
. . TABLE TRIGDIG
. . SCPODP PODP 6132288917 PODP EVENT TCAP R01 SS7 AINJAZZ DFLT $
. . . TABLE C7GTTYPE
. . . AINJAZZ ANSI7 3 $
. . . TABLE C7GTT
. . . AINJAZZ 6132288917 6132288917 SSNONLY (AINTEST) $
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information
+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++
AIN Info Analyzed TDP: trigger criteria met, querying the database.
Use the AINRES option for further information
+++ AIN TRAVER: SUCCESSFUL CALL TRACE +++
```

Prior to this feature, post query LEAS translation is not supported. For a LEAS call incoming on SC trunk, two example TRAVERs for post query translation are provided.

- ChargeNumber is returned in an Analyze Route response with a charge number. The Analyze route directs the call to be routed to a DN.
- ChargeNumber is returned in the SCP response - Analyze Route with first route busy and next available route is the address of an IEC.

Table 5-237 TRAVER : SC LEAS Post Query ProcessingCharge Number ist returned in an Analyze Route response to a DN

```
traver tr sc2wb n cdn na 6706218919 ainchg 6137221111 ainres r01 ar b n st 061362111234 st
Warning: Routing characteristics are present.
        Originator must be able to send in
        characteristics specified.
TABLE RTECHAR
 . LECNA (CDN NA $) ( BC 3_1KHZ (CDN NA)$)$
TABLE TRKGRP
SC2WB SC 0 TLA NCRT NIL N 613 TCA3 NONE DD ONHOOK ONHOOK 5 5 5 2W MIDL 0 BELL
   REGULAR CAMA NONE REV Y N $
```

Table 5-237 TRAVER : SC LEAS Post Query ProcessingCharge Number ist returned in an Analyze Route response to a DN

```
Warning: Routing characteristics in TRAVER command
line will override any bearer capability datafilled
in table TRKGRP.
TABLE PXLAMAP
 . Tuple not found. Default to old pretranslator name.
TABLE STDPRTCT
TCA3 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . 67 819554 N DD 0 NA
 . SUBTABLE AMAPRT
 . KEY NOT FOUND
 . DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 Y 932 2 ( 384) ( 1) ( 84) ( 0) 0
 . SUBTABLE HNPACODE
 . 670 670 HNPA 0
 . 6218 6219 DN 613 621
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
TABLE TRIGGRP
OFCTRIG INFOANAL
 . N11 ( DG N11DIG)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPDIG)$ NIL
Trigger R01 PODP is applicable to office.
 . N11 ( DG N11TRAF)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPTRAF)$ NIL
Trigger R01 N11 is applicable to office.
 . PODP ( DG PODPTRAF)$ NIL
Trigger R01 PODP is applicable to office.
AIN Info Analyzed TDP: trigger criteria not met.
TABLE TOFCNAME
613 621
TABLE DNINV
613 621 8919 L HOST 05 1 12 11
AIN Term Attempt TDP: no subscribed trigger.
TABLE DNATTRS
TUPLE NOT FOUND
```

Table 5-237 TRAVER : SC LEAS Post Query ProcessingCharge Number ist returned in an Analyze Route response to a DN

```
TABLE DNGRPS
TUPLE NOT FOUND
DETERMINE IF THE ROUTE SHOULD BE REPLACED WITH A NEW EQUAL ACCESS ROUTE
TABLE TRKLATA
SC2WB 6137221111 LATA1 Y T DACD
TABLE EASAC
TUPLE NOT FOUND
TABLE LATAXLA
LATA1 670 INTER INTER STD
TABLE DNPIC
613 722 11 11 ITT Y N
TABLE OCCINFO
ITT 0488 EAP Y Y Y Y Y N N Y Y Y N LONG 14 FGRPC N N N N N N N N N N N
TABLE PXLAMAP
 . Tuple not found. Default to old pretranslator name.
TABLE STDPRTCT
TCA3 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
10488 10488 EA DD 5 P PEA1 ITT Y OFRT 900 5 20 N
 . . TABLE OFRTMAP
 . . . Tuple not found. Default to old index.
 . . TABLE OFRT
 . .  900 CND EA INTNL SK 2
 . .      N D ISUPOGITT 0 N N
 . .      CND ALWAYS SK 1
 . .      N D ISUPOGITT 15 D179 N
 . . EXIT TABLE OFRT
TABLE PXLAMAP
 . . Tuple not found. Default to old pretranslator name.
 . TABLE STDPRTCT
 . PEA1 ( 1) (65021) 0
 . . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
 . . 1 9 EA DUsing Equal Access (EA) route   OFRT  900 from Pretranslation
TABLE OFRTMAP
 . Tuple not found. Default to old index.
```

Table 5-237 TRAVER : SC LEAS Post Query ProcessingCharge Number ist returned in an Analyze Route response to a DN

```
TABLE OFRT
 900 CND EA INTNL SK 2
    N D ISUPOGITT 0 N N
    CND ALWAYS SK 1
    N D ISUPOGITT 15 D179 N
TABLE OFRTMAP
 . Tuple not found. Default to old index.
EXIT TABLE OFRT
+++ TRAVER: SUCCESSFUL CALL TRACE +++


DIGIT TRANSLATION ROUTES
ISUPOGITT           6706218919        ST
  BILL              6136211234

TREATMENT ROUTES.  TREATMENT IS: GNCT
1 *OFLO

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

Table 5-238 TRAVER : SC LEAS Post Query Processing when Charge Number is returned in Analyze Route Response to a Carrier

```
traver tr sc2wb n cdn na 6706218919 tns na cic 0777 ainchg 6137221111 ainres r01 ar b n st
06136211234 st

Warning: Routing characteristics are present.

     Originator must be able to send in

     characteristics specified.

TABLE RTECHAR
 . IXCDDNA (CDN NA (TNS NA)$) ( BC 3_1KHZ (CDN NA) (TNS NA)$)$
TABLE TRKGRP
SC2WB SC 0 TLA NCRT NIL N 613 TCA3 NONE DD ONHOOK ONHOOK 5 5 5 2W MIDL 0 BELL
   REGULAR CAMA NONE REV Y N $
Warning: Routing characteristics in TRAVER command
line will override any bearer capability datafilled
in table TRKGRP.
TABLE PXLAMAP
 . Tuple not found. Default to old pretranslator name.
TABLE STDPRTCT
TCA3 ( 1) (65021) 0
 . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
. 10777 10777 EA DD 5 P PEA2 GTE Y OFRT 896 5 20 N
 . . TABLE OFRTMAP
 . . . Tuple not found. Default to old index.
 . . TABLE OFRT
 . .  896 CND EA INTNL SK 2
 . . N D ISUPOGGTE 0 N N
 . . CND ALWAYS SK 1
 . .N D ISUPOGGTE 15 D179 N
 . . EXIT TABLE OFRT
TABLE PXLAMAP
 . . Tuple not found. Default to old pretranslator name.
 . TABLE STDPRTCT
 . PEA2 ( 1) (65021) 0
 . . SUBTABLE STDPRT
WARNING: CHANGES IN TABLE STDPRT MAY ALTER OFFICE
BILLING.  CALL TYPE DEFAULT IS NP.  PLEASE REFER TO
DOCUMENTATION.
```

Table 5-238 TRAVER : SC LEAS Post Query Processing when Charge Number is returned in Analyze Route Response to a Carrier

```
. . 6 9 EA DD 0 T NA GTE N
. SUBTABLE AMAPRT
. KEY NOT FOUND
. DEFAULT VALUE IS:   NONE OVRNONE  N
TABLE HNPACONT
613 Y 932 2 ( 384) ( 1) ( 84) ( 0) 0
. SUBTABLE HNPACODE
. 670 670 HNPA 0
. 6218 6219 DN 613 621
TABLE OFCVAR
AIN_OFFICE_TRIGGRP OFCTRIG
TABLE TOFCNAME
613 621
TABLE DNINV
613 621 8919 L HOST 05 1 12 11
TABLE DNATTRS
TUPLE NOT FOUND
TABLE DNGRPS
TUPLE NOT FOUND
DETERMINE IF THE ROUTE SHOULD BE REPLACED WITH A NEW EQUAL ACCESS ROUTE
TABLE TRKLATA
SC2WB 6137221111 LATA1 Y T DACD
TABLE EASAC
TUPLE NOT FOUND
TABLE OCCINFO
GTE 0777 EAP Y Y Y Y Y N N Y Y Y N LONG 14 FGRPC N N N N N N N N N N N N
TABLE LATAXLA
LATA1 670 INTER INTER STD
TABLE DNPIC
613 722 11 11 ITT Y N
Using Equal Access (EA) route   OFRT  896 from Pretranslation
TABLE OFRTMAP
. Tuple not found. Default to old index.
TABLE OFRT
896 CND EA INTNL SK 2
    N D ISUPOGGTE 0 N N
    CND ALWAYS SK 1
    N D ISUPOGGTE 15 D179 N
TABLE OFRTMAP
. Tuple not found. Default to old index.
EXIT TABLE OFRT
```

Table 5-238 TRAVER : SC LEAS Post Query Processing when Charge Number is returned in Analyze Route Response to a Carrier

```
+++ TRAVER: SUCCESSFUL CALL TRACE +++
DIGIT TRANSLATION ROUTES

ISUPOGGTE          6706218919       ST
 BILL              6136211234
TREATMENT ROUTES.  TREATMENT IS: GNCT
1 *OFLO

+++ TRAVER: SUCCESSFUL CALL TRACE +++
```

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Duration of the alarm

AR1792mm.aa26

Directories

Not applicable.

Table of New/Modified Directories

Table 5-239 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

TRAVER, TRNSLVF

Table of New/Modified Commands

Table 5-240 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
TRAVER	CHANGED		CI
TRNSLVF	CHANGED		MAPCI

Command name:

TRAVER

Command type

NON-MENU.

Command target

SUPERNODE.

Command availability

RES

Command description

The TRAVER (translation verification) tool now supports the following trunks encountering AIN triggers:

- P2/PX
- CELL
- VAPN

Warning

None.

Command syntax

Not applicable.

Parameter Definitions

Not applicable.

Command name:

TRNSLVF

Command type

MENU.

Command target

SUPERNODE.

Command availability

RES.

Command description

The TRNSLVF (translation verification) tool now supports the following trunks encountering AIN triggers:

- P2/PX
- CELL
- VAPN

Warning

None.

Command syntax

Not applicable.

Parameter Definitions

Not applicable.

Responses

Not applicable.

Response

Not applicable.

Explanation:

System action:

User action:

Notes

The TRAVER and TRNSLVF tools now allow any of the trunks listed in "Command description" on page 48 to encounter an AIN trigger. In some cases, the TRAVER and TRNSLVF tools indicate that a trunk has hit an AIN trigger when that trigger is not supported for the trunk. This limitation is specific to the TRAVER and TRNSLVF tools and do not have any effect on call processing.

Examples

Example AIN TRAVER and TRNSLVF output for the newly supported trunks are inserted into this document at a later date. At this stage of the design, we do not yet have sufficient information to populate this section.

Alarms

Alarm name:

Not applicable.

Conditions required to raise the alarm

Duration of the alarm

AR1799mm.aa04

Directories

N/A

Table of New/Modified Directories

Table 5-241 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Table of New/Modified Commands

Table 5-242 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
DROMCI	CHANGED	N/A	N/A

Command name: DROMCI

Command type

NON-MENU

Command target

BOTH

Command availability

RES

Command description

DROMCI is a command that is only to be used during the datamove portion of the ONP. It has three potential parameters: DROMCI DUMP, DROMCI RESTORE and DROMCI CLEAR. The DROMCI command's function is to create and process the OM configuration file (OMDATA$).

DROMCI DUMP- creates the OMDATA$ file on the dump side.

DROMCI RESTORE- copies the OMDATA$ file from the dump side to the restore side and then executes all the OM commands contained in the file, thus restoring the OM configuration data on the restore side.

DROMCI CLEAR- resets the flags set when the OMDATA$ file is dumped the first time. This allows the other DROMCI functions to work.

This feature is changing DROMCI so that the DROMCI DUMP option is no longer available. This is done because the OMDATA$ file is no longer being dumped during the tabxfr as of BAS06. The DROMCI DUMP should have been eliminated at that time.

Warning

NONE

Command syntax

DROMCI <dromci option: DUMP, RESTORE, CLEAR>

Parameter Definitions

Table 5-243 Parameter Definitions

PARAMETER	VALUE	DEFINITION
dromci option	DUMP	Creates the OMDATA$ file.
	RESTORE	Copies the OMDATA$ file from the dump side to the restore side and then processes the commands contained in the file.
	CLEAR	Resets bools to allow the OMDATA$ file to be created and processed more than once.

Responses

No changes made to the responses for this command. DROMCI DUMP will no longer be recognized as a valid option.

Response

>dromci dump

Invalid symbol: <FUNCTION> {RESTORE,

CLEAR}

Enter: <FUNCTION>

Explanation:

The DROMCI DUMP option is removed by this feature. The OM configuration data is now kept in tables and tabxfr takes care of dumping and restoring tables.

System action:

NONE

User action:

Dump the data contained in the new OM tables: OMACCGRP, OMACCFLD, OMACCKEY, OMACCTOT and OMTOTAL.

Notes

The DROMCI DUMP option is removed since the OMDATA$ file is no longer being dumped during the tabxfr as of BAS06.

Examples

N/A

Alarms

N/A

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1807mm.aa05

The MM section of this DDOC can be found under the AR1791 feature.

AR1808mm.aa03

The MM section of this DDOC can be found under the AR1792 feature.

AR1827mm.aa10

Directories

Table of New/Modified Directories

Table 5-244 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SOCDIR	CHANGED		SUPER NODE	RES

Accessing directory: SOC

To access

To enter the SOC CI directory, use the command:

SOC

To return to CI

To return to the CI, type:

QUIT

Commands

Table of New/Modified Commands

Table 5-245 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ASSIGN	CHANGED		SOC
SELECT	CHANGED		SOC
REMOVE	CHANGED		SOC

Command name: ASSIGN

Command type: NON-MENU

Command target: SUPERNODE

Command availability: RES

Command description

Changes to the ASSIGN command are:

- "RTU removal" key codes are accepted. The command "ASSIGN RTU <key code> TO <order code>" will grant the right-to-use to the option if the key code is a granting key code, and remove the right-to-use if the key code is a removal key code.
- Attempts to change the state, RTU or limit of an "A/P" or "N/A" option are refused, with an appropriate message.

Warning

No change to warnings.

Command syntax

No change to syntax.

Parameter Definitions

No change to parameters.

Responses

New or changed responses are described in this section.

Response: Option <order code> is <N/A (not applicable)|A/P (always provided)>. Its <RTU|limit|state> cannot be changed.

Explanation:

The option is always provided, or not applicable to this PCL. In either case, its characteristics cannot be changed. <order code> is the option's order code; <N/A|A/P> indicates whether the option is "N/A" (not applicable) or "A/P" (always provided); <RTU|limit|state> indicates what attribute of the option the command was trying to change (right-to-use, usage limit, or state).

System action:

Refuses the request.

User action:

Make sure the order code is correct. If it is, this option is either always provided or not applicable in this PCL. It cannot be changed.

Response: Done.

Explanation:

Formerly, an attempt to remove an option's right-to-use via the ASSIGN RTU command would fail, indicating that the key code was incorrect. It is now accepted, and the RTU is set to NO as expected.

System Action:

Sets the RTU for the option to NO.

User Action:

None. Command executed correctly.

Notes

None.

Examples

The command:

>ASSIGN RTU 8MNWDBK8GH8LFEWVS8PN TO ZORK0001

would formerly have produced an error message, since the key code is appropriate for removal of the option's right-to-use. It will now produce the response:

Done.

The command:

>ASSIGN STATE IDLE TO ZORK0002

where option ZORK0002 is marked as "A/P" in the RTU column of the SOC SELECT report, will produce the result:

Option ZORK0002 is A/P (always provided). Its state cannot be changed.

Command name: SELECT

Command type: NON-MENU

Command target: SUPERNODE

Command availability: RES

Command description

The SELECT command is unchanged in syntax and general behaviour, but the syntax of the report has changed slightly. The report now identifies some options as “always provided” or “not applicable”.

Warning

None.

Command syntax

Command syntax is unchanged.

Parameter Definitions

Parameter definitions are unchanged.

Responses

The format of a line in the SOC report has changed. The RTU column formerly contained either a “Y” or “N”. It now contains either a “Y”, “N”, “A/P” or “N/A”. The new entries identify “always provided” and “not applicable” options, respectively. To accomodate the two extra columns needed in the RTU column, one space is removed from the gap between the NAME and the RTU, and one space is removed from the gap between the LAST_CHG date and the status flag column.

Default (BRIEF) format for a line is now:

```
GROUP: xxxx
OPTION    NAME                RTU STATE USAGE   LIMIT UNITS  LAST CHG
xxxxxxxx  xxxxxxxxxxxxxxxxxxx xxx xxxx  xxxxxx xxxxxx  xxxxxxx  xxxxxxxx xxxx
```

VERBOSE reports have this line modified in the same way. Field definitions are (changes are in bold-face):

- GROUP = 3 or 4 character functional group code.
- OPTION = option order code, 8 alphanumeric digits

- NAME = the 20 character option name (4 character functional group code is stripped)
- RTU = right-to-use granted (Y, for yes, or N, for no, **A/P for always provided, N/A for not applicable**)
- STATE = option state: IDLE, ON, ERR, ITO (idle to on), OTI (on to idle).
- USAGE = current usage: unsigned integer (normally < 2^{32})(displayed as nnnnnn if <=999999, or n.nEnn if >999999, or ****** if >=2^{32})
- LIMIT = usage limit: integer >= 0 and <=999999 followed by “S” if soft, or MONITOR.
- UNITS = units of usage: 7 character string describing units of usage
- LAST CHG = date of last RTU change or last limit change for options, date of last state or usage change for features

Note that the trailing “xxxx” on each line is an option alert flag indicator (ISTB), or indicates that the option is a tracked option (TRAK), pending (PEND), over its threshold (>THR), over its limit (>LIM), or has usage too high to count (>MAX) (last three apply to usage or dual options only).

For various flavours of option, parts of the report will be meaningless, and will show up as dashes:

- state options – the USAGE, LIMIT and UNITS fields will be dashes
- usage options – the STATE field will be a dash; the RTU field will be Y if the LIMIT is non-zero, and N if the LIMIT is zero.
- tracked usage options – the STATE and USAGE fields will be dashes (USAGE is meaningless since tracked options don’t actually count anything); THRESHOLD and HIGHWATER mark in verbose reports will also be dashes.
- dual options – all fields are valid
- tracked state options – state field is a dash (as are usage-related fields)

Notes

None.

Examples

The following command:

>SELECT GROUP SOC

might generate a report like the following:

```
CLLI:OTWAN0X14B2          SOC OPTION STATUS SUMMARY              DATE:95/09/30
PCL NAME:NA0006

GROUP:SOC
OPTION    NAME                RTU STATE   USAGE   LIMIT    UNITS  LAST_CHG
------    ----                --- -----   -----   -----    -----  --------
SOCOPT10  Option 10           N/A  IDLE       -       -        -  95/09/26
SOCOPT11  Option 11           A/P    ON       -       -        -  95/09/26
SOCOPT12  Option 12             Y     -       0     100  UNIT_12  95/09/26
SOCOPT13  Option 13             N  IDLE       -       -        -  95/09/26
SOCOPT14  Option 14           N/A     -       0       0  UNIT_14  95/09/26
SOCOPT15  Option 15             N     -       0       0  UNIT_15  95/09/26
SOCOPT16  Option 16              N    -       -       0  UNIT_16  95/09/26 TRAK
```

Command name: REMOVE

Command type: NON-MENU

Command target: SUPERNODE

Command availability: RES

Command description

The REMOVE command is redundant, now that rights-to-use can be removed via the ASSIGN command. A message is now displayed when this command is used, indicating that it will be removed one day, and the user should use ASSIGN instead.

Warning

None.

Command syntax

No change to syntax.

Parameter Definitions

No change to parameters.

Responses

New or changed responses are described in this section.

Response: NOTE: The REMOVE command is obsolete, and will be removed in a future release. Please use ASSIGN instead.

Explanation:

This note will always appear, after the command is entered and before the normal response is displayed.

System action:

Carries on to complete the request

User action:

None. In the future, use ASSIGN RTU instead.

Notes

None.

Examples

The command:

>REMOVE RTU 8MNWDBK8GH8LFEWVS8PN FROM ZORK0001

would result in:

The REMOVE command is obsolete, and will be removed in a future release. Please use ASSIGN instead

Done.

Alarms

Not Applicable

AR1847mm.aa08

Directories

Table of New/Modified Directories

Table 5-246 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
MAPCI;MTC;PM;POST DTM X	CHANGED	N/A	SUPERNODE, BRISC	RES

Accessing directory:

To access

To access LOADPM ANN INDEX from the CI environment, enter:

> MAPCI;MTC;PM;POST DTM x

where x is a DTM number.

To return to CI

> QUIT ALL

Commands

Table of New/Modified Commands

Table 5-247 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
LOADPM ANN INDEX	NEW	N/A	MAPCI;MTC;PM;POST DTM x

Command name: LOADPM ANN INDEX

Command type

MENU.

Command target

SUPERNODE, BRISC

Command availability

RES.

Command description

CI MAP command **LOADPM ANN INDEX** used from MAPCI;MTC;PM;POST DTM x MAP level allows user to down load **SINGLE** announcement file to posted DTM.

LOADPM ANN INDEX extends currently existing CI MAP command LOADPM ANN which allows all announcement files datafilled in table EDRAMINV down load to the posted DTM

Warning

Command syntax

LOADPM: LOAD THE TM

Parms: [<MODE > {EXEC,

NOTEST,

ANN [<INDEX> {1 TO 32}]}]

[<NOWAIT> {NOWAIT}]

Parameter Definitions

Table 5-248 Parameter Definitions

PARAMETER	VALUE	DEFINITION
INDEX		Index of the DTM announcement file. Index has to much with announcement file datafilled in table EDRAMINV.
	1 - 8	INDEX for DTM with 8 announcement files. Equipment PEC is 1X80AA.
	1 - 32	INDEX for DTM with 32 announcement files. Equipment PEC is 1X80BA.

Responses

The following error messages have been added:

1. Apply to both DTMs 1X80AA and 1X80BA.

   - ‘LOADPM ABORTED: No announcement file datafilled.’

2. Apply to 1X80AA DTM.

- ‘Index for 1x80aa is 1 to 8’

Response

LOADPM ABORTED: No announcement file datafilled.

Explanation:

As it was said in the Command description section on page 5-625 and in Table 5-286, INDEX specified in LOADPM ANN INDEX command has to match announcement file datafilled in table EDRAMINV. If INDEX does not match the error message

LOADPM ABORTED: No announcement file datafilled.

is displayed.

System action:

LOADPM is aborted. DTM announcement files has not been down loaded to DTM.

User action:

1. Repeat LOADPM ANN INDEX providing **valid** INDEX.

2. Datafilled table EDRAMINV with needed DTM announcement files and repeat LOADPM ANN INDEX command.

Response

Duplicate precisely the format viewed by the user at the MAP.

Index for 1x80aa is 1 to 8

Explanation:

Provide a brief explanation of the response. Define all the variable fields in the response. Indicate if the response is visible on NT40, SUPERNODE, BOTH or OTHER. If OTHER specify.

Error message valid for both SUPERNODE and BRISC.

Since LOADPM ANN INDEX is designed to support both DTMs 1X80AA and 1X80BA the max INDEX range is from 1 to 32. Valid INDEX for 1X80AA DTM is from 1 to 8. If 1X80AA DTM is posted and specified INDEX is higher the 8 this error message will be displayed.

System action:

Identify system action which results from the execution of this command (for example, changes to the status display).

LOADPM is aborted. DTM announcement files has not been down loaded to DTM.

User action:

Identify any required user action. Provide the user as many courses of action as possible.

1. Repeat LOADPM ANN INDEX providing valid INDEX.

Notes

None.

Examples

e.g. 1. Datafill of Table EDRAMINV:

DTM 5 1 ANN ECLS20AP

DTM 5 3 ANN ECLS20AQ

DTM 5 5 ANN ECLS20AR

CI MAP Command:

LOADPM ANN 6

error message displayed:

'**LOADPM ABORTED: No announcement file datafilled**'

The only valid INDEXes in the above cause are: 1, 3 and 5.

e.g. 2. The same datafill of table TMINV as above.

CI MAP Command:

LOADPM ANN 30

error message displayed:

Index for 1x80aa is 1 to 8

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1861mm.aa07

<Include reference to NTP regarding C7ROUTER Map Level>

Directories

Table of New/Modified Directories

Table 5-249 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Table of New/Modified Commands

Table 5-250 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

Command name:

Command type

Command target

Command availability

Command description

Warning

Command syntax

Parameter Definitions

Table 5-251 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

Explanation:

System action:

User action:

Notes

Examples

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1887mm.aa06

Directories

Table of New/Modified Directories

N/A

Accessing directory:

N/A

Commands

N/A

Responses

Response 1

Explanation:

Attempt to datafill option against a ANSI7+ trunk when UNIVERSAL_AMA_BILLING is set to N;

System action:

“CCTSEIZE cannot be datafilled because the UNIVERSAL_AMA_BILLING parameter in table OFCENG is not set to Y.”,

User action:

User has to change parameter UNIVERSAL_AMA_BILLING to Y.

Response 2

Explanation:

Attempt to datafill CCTSEIZE option against a non C7 trunk.

System action:

“CCTSEIZE cannot be datafilled against a NON C7 signaling trunk.”

User action:

User has to specify an ANSI7+ type trunk.

Response 3

Explanation:

Attempt to datafill CCTSEIZE option against a non IBN trunk.

System action:

“The CCTSEIZE option can only be datafilled against IBN incoming, outgoing or two-way trunk types.”

User action:

User has to specify an appropriate (outgoing, incoming or 2-way) ANSI7+ trunk.

Response 4

Explanation:

Attempt to datafill CCTSEIZE option with no sub group datafill

System action:

“No Subgroup data available - Datafill table TRKSGRP before AMATKOPT.”

User action:

User has to datafill table TRKSGRP prior to datafilling table AMATKOPT.

Alarms

N/A

AR1921mm.aa09

Directories

See feature AR1617 “GTT CUSTOMER TOOLS”.

Table of New/Modified Directories

Table 5-252 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

See feature AR1617 “GTT CUSTOMER TOOLS”.

Table of New/Modified Commands

Table 5-253 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

Command name:

Command type

Command target

Command availability

Command description

Warning

Command syntax

Parameter Definitions

Table 5-254 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

Explanation:

System action:

User action:

Notes

Examples

Alarms

See feature AR1617 “GTT CUSTOMER TOOLS”.

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR1927mm.aa06

Directories

Table of New/Modified Directories

Table 5-255 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SYSDIR	CHANGED		BOTH	RES
PROGDIR	CHANGED		BOTH	RES

Accessing directory:SYSDIR

To access

This directory is accessible at the CI level.

To return to CI

N/A.

Accessing directory:PROGDIR

To access

This directory is accessible at the CI level.

To return to CI

N/A.

Commands

Table of New/Modified Commands

Table 5-256 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SETDATE	CHANGED		SYSDIR
SETLOGMSG	CHANGED		SYSDIR
IMAGENAME	CHANGED		SYSDIR
TPSCRM	CHANGED		PROGDIR

Command name: SETDATE

Command type: NON-MENU

Command target: BOTH

Command availability: RES

Command description

SETDATE command will only accept an absolute year value.

The year parameter in SETDATE command will be changed from

{‘(YY)YY’, PARINT, NOPTNL, 76, 1976+63, NIL} } };
to
{‘YYYY’, PARINT, NOPTNL, 1976,2039, NIL} } };
This change prevents USERS from entering a number less than 1976 or greater than 2039.

Warning: None

Command syntax

SETDATE <DD> <MM> <YYYY>

Parameter Definitions

Table 5-257 Parameter Definitions

PARAMETER	VALUE	DEFINITION
DD	N/A	no change
MM	N/A	no change
YYYY	1976 to 2039	absolute year value

Responses

All responses from the SETDATE command are unchanged.

Response

> **setdate** 2 2 2000
Date is THU. 02/FEB/2000 14:53:52

Explanation:

N/A

System action:

N/A

User action:

N/A

Notes

N/A

Examples

See section 5.2.3.1 Response

Command name: SETLOGMSG

Command type: NON-MENU

Command target: BOTH

Command availability: RES

Command description

Setlogmsg sets the login message on the prompt of the map terminal. The format of the date to the map terminal is changed from “YY/MM/DD” to “YYYY/MM/DD”.

Warning: None.

Command syntax

SETLOGMSG <STRING>

Parameter Definitions

Table 5-258 Parameter Definitions

PARAMETER	VALUE	DEFINITION
STRING	N/A	no change

Responses

Response

> **setlogmsg ‘**BASE_ALL06AE**’**
>
1995/10/17 18:52 BASE_ALL06AE

Explanation:

N/A

System action:

N/A

User action:

N/A

Notes

N/A

Examples

See section 5.2.7.1 Response.

Command name: IMAGENAME

Command type: NON-MENU

Command target: BOTH

Command availability: RES

Command description

IMAGENAME command displays the imagename on the map terminal. The format of the date to the map terminal is changed from “YY/MM/DD” to “YYYY/MM/DD”.

Warning:

NONE

Command syntax

IMAGENAME

Parameter Definitions

None.

Responses

Response

>**imagename**
CM BCS 41 AE built on **1995**-Oct-17 at 17:31:00 using base_all06ae
LAYER: BAS.07.AE
LAYER: TL.06.AE

Explanation:

N/A

System action:

N/A

User action:

N/A

Notes

N/A

Examples

See section 5.2.11.1 Response.

Command name: TPSCRM

Command type: NON-MENU

Command target: BOTH8

Command availability: NON-RES

Command description

TPS Critical Resources Monitor CI Interface. It performs commands analysis and invokes display procedures or sets up collector processing. The format of the date to the map terminal is changed from “YY/MM/DD” to “YYYY/MM/DD”.

Warning:

NONE

Command syntax

TPSCRM <Option>

Parameter Definitions

All the parameters remain the same as before.

Responses

Response

>**tpscrm** all
TPSCRM invoker queues (TPS_PRIO_6 - NETMTCCLASS)
Current number of SCB in normal queue = 0
High water mark for the normal queue = 0
Current number of SCB in priority queue = 0
High water mark for the priority queue = 0 (Time: **1995**/10/26 03:33:55)

Explanation:

N/A

System action:

N/A

User action:

N/A

Notes

N/A

Examples

See section 5.2.15.1 Responses

Alarms

There is no change to alarms.

AR1947mm.aa28

Warning

Some sections require specific examples of output and will be refined once the feature is coded.

The white book feature is going in CSP06 as a patch in AR1920, the hooks for which are added under this feature, AR1947, which also contains changes to the Man Machine Interface. Other changes to the MM will occur in the patch (AR1920), and therefore, the section AR1920MM is closely associated with this section.

Directories

Table of New/Modified Directories

Table 5-259 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SOC	CHANGED	N/A	Supernode, BRISC	Res

NOTE: The changes in the SOC directory only involve changes to the response of the commands contained in this directory. The functionality of the commands of SOC has not been changed.

Accessing directory: SOC

To access

SOC

To return to CI

QUIT

Commands

Table of New/Modified Commands

Table 5-260 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
ASSIGN	CHANGED	N/A	SOC

Command name: ASSIGN

Command type

NON-MENU

Command target

SUPERNODE, BRISC

Command availability

RES

Command description

The functionality of the ASSIGN command has not changed, however, some of the responses are changed specifically for this feature when changing the state of option TEL00009.

Warning

A warning must be issued when the TEL00009 is turned on using the assign command, before the patch, CCY18, is applied.

```
Warning: Activation of the TEL00009 before the patch CCY18 has been applied.
Warning: XUDT/XUDTS messages cannot be originated from this node before the
Warning: patch has been applied.
```

A warning must be issued when the TEL00009 feature is turned off. This is to ensure that the feature is not deactivated in a network where XUDT/XUDTS messages are originating. XUDT/XUDTS messages will be discarded when TEL00009 is in the idle state.

```
Warning: Deactivation of TEL00009 prevents the origination
Warning: and receipt of XUDT/XUDTS messages on this node,
Warning: these messages are discarded. In addition, SCCP
Warning: circular routing prevention and segmentation and
Warning: reassembly functions are disabled.
```

Command syntax

There is no change to the command syntax.

Parameter Definitions

There is no change in the parameter definitions.

Responses

Response:

```
Error: Insufficient memory for requested state transition.
```

Explanation:

An attempt to allocate memory for the requested state transition has failed.

System action:

The soc state remains in the original state; the transition is not completed.

User action:

The craftperson must take proper action to get more resources, perhaps by contacting Nortel.

Notes

The command changes reflect output specific to this feature and the TEL00009 SOC option.

Examples

(This section will be added after the command is coded.)

Alarms

There are no alarms.

AR1960mm.aa07

Directories

Table of New/Modified Directories

Table 5-261 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
PROGDIR	CHANGED		BOTH	RES

Accessing directory: PROGDIR

To access

This directory is accessible at the CI level.

To return to CI

N/A.

Commands

Table of New/Modified Commands

Table 5-262 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QUERY	CHANGED		PROGDIR

Command name: QUERY TABLES

Command type: NON-MENU

Command target: BOTH

Command availability: RES

Command description

The output of QUERY TABLES sub command has been changed to reflect the new structure of the IPL table. The IPL table has been expanded from a desc to a desc of a desc. In the previous implementation IPL returned a pointer to the store containing the IPL entries, it now returns a pointer to a block of store holding descriptors then in turn points to slices of 256 ipl entries.

Note: The parameter name '**address'** has been changed to '**first level addr'** for the IPl table.

Warning

N/A

Command syntax

QUERY TABLES

Parameter Definitions

N/A

Table 5-263 Parameter Definitions

PARAMETER	VALUE	DEFINITION
tables	n/a	nochange

Responses

All responses from QUERY other than the one specified below are unchanged.

Response

CI:

>query tables

```
ipl:        first level addr=02060000  size=0420 used=0002 increment=0020
alias:      address=01E9F94C       size=0276  used=0275  increment=001E
loadinfo:   address=01DC7A18       size=0014  used=0004  increment=000A
initwith:   address=02048514       size=01E2  used=010E  increment=000A
```

Explanation:

System action:

There are no system actions caused by this command.

User action:

There are no new user actions introduced by this change.

Notes

Examples

See section 7.2.3.1

Alarms

There are no changes to alarms.

AR2025mm.aa18

Directories

Table of New/Modified Directories

Table 5-264 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SWACTCI	CHANGED	N/A	SuperNode and BRISC	RES
MTCSWACTCI	CHANGED	N/A	SuperNode and BRISC	RES

Accessing directory: SWACTCI

To access

CI> BCSUPDATE

BCSUPDATE> SWACTCI

To return to CI

> QUIT ALL

Accessing directory: MTCSWACTCI

To access

CI> MTCSWACTCI

To return to CI

> QUIT

Commands

This feature adds new information to the output of the following commands. There is no change in the existing fields in the output. The syntax of these commands are listed for reference purposes, however, there is no change made to the syntax of these commands. The new additional information is described in the Response section of each command.

Table of New/Modified Commands

Table 5-265 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SWACTTRAK	CHANGED	N/A	SWACTCI, MTCSWACTCI
DISPLAY	CHANGED	N/A	SWACTCI
NORESTARTSWACT	CHANGED	N/A	SWACTCI
RESTARTSWACT	CHANGED	N/A	SWACTCI
ABORTSWACT	CHANGED	N/A	SWACTCI
MODCHECK	CHANGED	N/A	SWACTCI

Command name: SWACTTRAK

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES - available under TOOLSUP.

Command description

This command accesses the SWACTTRAK tool which collects detailed SWACT performance measurements for NORESTARTSWACT (NRS), RESTARTSWACT, MTCSWACT and ABORTSWACT.

Warning

CC WARM SWACT will take in the order of 100ms longer if SWACTTRAK is ON. This will happen because performance measurements are collected during the call processing interruption window. SWACT time is not affected if SWACTTRAK is OFF.

Command syntax

```
SWACTTRAK <Function> {QUERY,
                     ON,
                     OFF,
                     DISPLAY [<Level> {BRIEF,
                                       DETAIL,
                                       FILE <FILE NAME> STRING}]}
```

Parameter Definitions

Table 5-266 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Function	QUERY	Queries SWACTTRAK to determine if the tool is ON or OFF, and if SWACTTRAK has collected any data.
	ON	Turns SWACTTRAK on.
	OFF	Turns SWACTTRAK off.
	DISPLAY BRIEF	Display data collected by SWACTTRAK in brief format.
	DISPLAY DETAIL	Display data collected by SWACTTRAK in detail format. This is the default value.
	DISPLAY FILE *filename*	Put detailed SWACTTRAK output into a file named *filename* in sfdev.

Responses

This section shows the changes made to SWACTTRAK. The performance of FASPECT applications are added to the output of SWACTTRAK.

Note that the SWACTTRAK command can be accessed under either SWACTCI or MTCSWACTCI directories. In this section, SWACTCI is used for illustration. For section 7.2.5, MTCSWACTCI is used.

Response - DISPLAY option

```
SWACTCI> SWACTTRAK DISPLAY
(SWACTTRAK report)
```

Explanation:

The SWACTTRAK report is displayed. The content of the report will vary based on the switch configuration and the type of SWACT performed. A sample SWACTTRAK output is listed in figure 1 below. The added information for FASPECT applications is highlighted. The purpose of the figure is to give readers an idea of what the new SWACT report looks like. The time values, application names and module names in the example have been placed there only for the purpose of this example. The default format for SWACTTRAK report is DETAIL if the format is not specified.

Figure 5-117 SWACTTRAK report with default option (DETAIL)

```
>swacttrak display
SWACT Timing Report Version 2 for SN100 MTCSWACT finished at 1996/02/21 12:18:36.325
   Old Side: CPU1 CM on 9X10 88110                Product: CDNB05
      DRUs: BAS06BC TL05BC SHR05AA CCM05BC CNA05BC
   New Side: CPU0 CM on 9X10 88110                Product: CDNB05
      DRUs: BAS06BC TL05BC SHR05AA CCM05BC CNA05BC
   Configuration Info: ENET, 8 XPM(s), 25 PM(s)
-------------SWACT Step-------------  ------------Details-----------  ------------Data------------  --StartTime-  ---EndTime--  -Duration
SWACT Process Execution                NORESTARTSWACT                                              16:44:44.719  16:46:23.296  01:38.577
Partial CALLP Outage                                                                               16:45:39.657  16:46:08.345  00:28.688
Call Statistics                                                 Stable  Extract  Insert
   Number of Calls:                                                 14       10      10
FASPECT Prep Active                    ----------Module----------                    Result                      16:44:54.898  16:44:56.498  00:01.600
     Faspect Test 1                    FASTEST1                                      OK
     Faspect Test 2                    FASTEST2                                      OK
   2 FASPECTs Prepared (Active)
FASPECT Prep Inact                     ----------Module----------                    Result                      16:44:56.498  16:44:58.266  00:01.768
     Faspect Test 1                    FASTEST1                                      OK                                                  00:00.421
     Faspect Test 2                    FASTEST2                                      OK                                                  00:01.347
   2 FASPECTs Prepared (Inactive)
FASPECT Sent Active                    ----------Module----------  Buffers -Words-  Result                      16:44:58.266  16:45:00.734  00.02.468
     Faspect Test 1                    FASTEST1                          1  10000      OK                                                  00.00.121
     Faspect Test 2                    FASTEST2                         10  75000      OK                                                  00.01.935
   2 FASPECTs Sent                                                      11  85000                                16:44:58.780  16:45:00.847  00.02.067
FASPECT Transfer                                                            Transfer  rate
                                                                             41.122 KW/s
FASPECT Process Inact                  ----------Module----------  Buffers -Words-  Result                      16:44:59.286  16:45:01.754  00.02.488
     Faspect Test 1                    FASTEST1                          1  10000      OK                                                  00.00.131
     Faspect Test 2                    FASTEST2                         10  75000      OK                                                  00.01.945
   2 FASPECTs Processed                                                 11  85000
MASPECT Data Transfer                  ----------Module----------  -Sent--  -Rcvd--  -Invoc-                    16:45:01.898  16:45:03.209  00:01.311
     CCS7 MTP DATA                     C7MTPSWT                        142        0       11                                              00:00.936
     CCS7 SCCP Data                    SCCPSWCT                          4        0        1                                              00:00.076
     LIU Data                          LIUSWCT                          36        0        3                                              00:00.238
     XPM Node Data                     XPMASWCT                         11        0        1                                              00:00.061
   4 MAspects Transferred                                             193        0       16

                Rest of SWACTTRAK omitted for clarity
```

The following is a brief description of what information is expected in the FASPECT steps.

- Steps ‘FASPECT Prep Active’ and ‘FASPECT Prep Inact’
    - Column ‘Detail’: is used primarily during the Detailed report to list the sub-steps module names.
    - Column ’Data’: The execution result of each specific FASPECT applications is shown here (under ‘Result’).
- Step ‘FASPECT Transfer’
    - Column ‘Detail’: Nil
    - Column ‘Data’: The overall FASPECT transfer rate(in KW/s) is displayed.
- Step FASPECT Sent Active’ and ‘FASPECT Process Inact’
    - Column ‘Detail’: is used primarily during the Detailed report to list the sub-steps module names.
    - Column ‘Data’: This column displays the following information (per application basis):
        - Buffer: contains the number of buffers that have been sent.
        - Data: contains the total number of words that have been sent.
        - Result: The execution result of each specific FASPECT application is shown here.
- There are also 3 columns of timing information, the StartTime, EndTime and Duration times. The Start and End times are time of day stamps taken at the beginning and end of the steps respectively. A dash (-) in any timing column indicates that the time is not applicable, or not available. If the time is zero, the time stamp was taken during the restart of a switch.

  The timing values displayed depends on what was occurring on the switch during the SWACT. They may vary slightly. In addition, the time values are only accurate to within 1 ms. Short durations may show up as zero time.

System action:

N/A

User action:

The user may want to display the brief SWACTTRAK format. The command SWACTTRAK DISPLAY BRIEF can be used. The following figure 2 is a sample of the SWACTTRAK brief report. The purpose of the figure is to give readers an idea of what the SWACTTRAK brief report looks like. The time values, application names and module names in the example have been placed there only for the purpose of this example.

Figure 5-118 SWACTTRAK report with BRIEF option

```
>swacttrak display brief
SWACT Timing Report Version 2 for SN100 MTCSWACT finished at 1996/02/21 12:18:36.325
   Old Side: CPU1 CM on 9X10 88110          Product: CDNB05
      DRUs: BAS06BC TL05BC SHR05AA CCM05BC CNA05BC
   New Side: CPU0 CM on 9X10 88110          Product: CDNB05
      DRUs: BAS06BC TL05BC SHR05AA CCM05BC CNA05BC
   Configuration Info: ENET, 8 XPM(s), 25 PM(s)
-------------SWACT Step-------------  -------------Details-----------  -------------Data----------  --StartTime-  ---EndTime--  -Duration
SWACT Process Execution                NORESTARTSWACT                                               16:44:44.719  16:46:23.296  01:38.577
Partial CALLP Outage                                                                                16:45:39.657  16:46:08.345  00:28.688
Call Statistics                                                    Stable  Extract  Insert
   Number of Calls:                                                    14       10      10
FASPECT Prep Active                    ------------Module------------                           16:44:54.898  16:44:56.498  00:01.600
   2 FASPECTs Prepared (Active)
FASPECT Prep Inact                     ------------Module------------                           16:44:56.498  16:44:58.266  00:01.768
   2 FASPECTs Prepared (Inactive)
FASPECT Sent Active                    ------------Module------------  Buffers -Words-          16:44:58.266  16:45:00.734  00.02.468
   2 FASPECTs Sent                                                          11    85000
FASPECT Transfer                                                                Transfer rate    16:44:58.780  16:45:00.847  00.02.067
                                                                              41.122 KW/s
FASPECT Process Inact                  ------------Module------------  Buffers -Words-          16:44:59.286  16:45:01.754  00.02.488
   2 FASPECTs Processed                                                     11    85000
MASPECT Data Transfer                  ------------Module------------  -Sent-- -Rcvd-- -Invoc-  16:45:01.898  16:45:03.209  00:01.311
   4 MAspects Transferred                                                  193       0      16

                                    Rest of SWACTTRAK omitted for clarity
```

Notes

Please note that SWACT will take longer if SWACTTRAK is ON. It is because extra information is logged during SWACT to generate the SWACTTRAK report. SWACT time is not affected if SWACTTRAK is OFF.

Examples

The following examples show the user input and responses related to the SWACTTRAK command. Note that the SWACTTRAK command can be accessed under either SWACTCI or MTCSWACTCI directories. For the following examples, MTCSWACTCI is used for illustration.

Example 1:

```
MTCSWACTCI> SWACTTRAK DISPLAY
(Please refer to Figure 1 for a sample of SWACTTRAK report)
```

Example 3:

```
MTCSWACTCI> SWACTTRAK DISPLAY BRIEF
Please refer to Figure 2 for a sample of SWACTTRAK report)
```

Command name: DISPLAY

An option FASTAPPL will be added to command DISPLAY to display the bound in FASPECT applications.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES

Command description

This command displays information collected over a CC Warm SWACT. There are several options under this command allowing various types of information to be displayed.

Warning

Nil

Command syntax

DISPLAY {<WHAT> {MISMATCH,

SWACTTIME,

BADNODES,

SWACTAPP,

DEVSTATAPP,

NRSAPPL,

FASTAPPL}}

Parameter Definitions

Table 5-267 Parameter Definitions

PARAMETER	VALUE	DEFINITION
WHAT	MISMATCH	Will list all device status applications whose status differ between the OLD and NEW sides. Use this command ONLY when CC Warm SWACT fails due to a status mismatch.
	SWACTTIME	This option will display the overall time taken for a CC Warm SWACT. The value is not the downtime for Call Processing.
	BADNODES	Displays all NODES whose status is not OK and not OFFLINE.
	SWACTAPP	Displays all bound in SWACT applications and their version information.
	DEVSTATAPP	Displays all STATUSUPDATE/ STATUSCHECK applications currently bound in.
	NRSAPPL	Displays all NORESTARTSWACT applications currently bound in.
	FASTAPPL	Displays all FASPECT applications currently bound in.

Responses

This section shows the new option ‘FASTAPPL’ for command DISPLAY only. The existing options of DISPLAY command are not changed.

Response - DISPLAY FASTAPPL

```
SWACTCI> DISPLAY FASTAPPL
```

Figure 5-119 Sample DISPLAY FASTAPPL output

```
>display fastappl
Beginning display of SWACT FASPECT applications...

Index Application Name     Version
==================================
0    FASPECT Test 1   0000 0001
1    FASPECT Test 2   0000 0001

Display completed.
```

Explanation:

Display all the applications that bound to FASPECT interface. The index, application's name and application's version are also displayed.

System action:

N/A

User action:

N/A

Notes

Nil

Examples

The following examples show the user input and responses related to the DISPLAY FASTAPPL command.

Example 1:

```
SWACTCI>  DISPLAY FASTAPPL
(Please refer to Figure 3 for a sample of the DISPLAY FASTAPPL
output)
```

Command name: NORESTARTSWACT

A message will be displayed to indicate whether the FASPECT step is completed successfully during NORESTARTSWACT.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES

Command description

This command will initiate the CC Warm SWACT sequence provided all the pre-check activities that are invoked complete successfully. A series of checks is run before a CC warm SWACT occurs. If all checks pass, the CC Warm SWACT steps are executed. The execution result of each CC Warm SWACT step is displayed. This feature will add a CC Warm SWACT steps.

The NOMATCH option should be used by qualified NT personnel only. If the customer uses this option, an outage may occur that could be qualified as a telco procedural error.

If the user stops the process by means of HX, the CC warm SWACT will continue, but the messages will not be displayed.

Warning

Nil

Command syntax

NORESTARTSWACT [<CHKTYPE> {NOMATCH}]

Parameter Definitions

Table 5-268 Parameter Definitions

PARAMETER	VALUE	DEFINITION
CHKTYPE		Default. Will invoke checking of all node statuses, and will perform comparison of node and device statuses between the ACTIVE and INACTIVE sides.
	NOMATCH	Optional. Will invoke checking of active side PM node status only, and will not invoke comparison of node or device status between the ACTIVE and INACTIVE sides. This option should only be used by qualified NT personnel. A telco procedural outage may occur if the customer uses this option.

Responses

Response - NORESTARTSWACT FAIL

Explanation:

NORESTARTSWACT fails due to the FASPECT step fail.

System action:

CC warm SWACT will be stopped for correction.

User action:

Check the SWCT log to identify the error. The user needs to correct the error before entering the command again.

Example:

```
>norestartswact
Beginning SWACT checks:

All the SWACT checks have finished successfully.




ACTIVE DEFAULT SETTINGS:
NOMATCH    set OFF
Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"):
>y
All Pre-SWACT checks completed. Starting Warm SWACT now.
********   The cursor will not be returned  ********
********  unless a critical failure occurs. ********
******** Now monitoring Warm SWACT messages.********
Pre-initialization done

Communication established

Exchange of data with the mate done

The application for SWACT has failed.
Failed to transfer data (FASPECT)
```

Response - NORESTARTSWACT SUCCESSFUL

Explanation:

NORESTARTSWACT is completed successfully.

System action:

N/A

User action:

N/A

Examples

```
>norestartswact
Beginning SWACT checks:

All the SWACT checks have finished successfully.



ACTIVE DEFAULT SETTINGS:
NOMATCH    set OFF
Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
All Pre-SWACT checks completed. Starting Warm SWACT now.
********   The cursor will not be returned  ********
********  unless a critical failure occurs. ********
******** Now monitoring Warm SWACT messages.********
Pre-initialization done

Communication established

Exchange of data with the mate done

Transfer of data (FASPECT) done

Data estimation done

Store allocated on active CC

Store allocated on inactive CC

AMA processing completed

Call processing in PM stopped

Call processing I/O in CC stopped

Call data extracted

Data transfer completed
 $$
```

Notes

Nil

Command name: RESTARTSWACT

A message will be displayed to indicate whether the FASPECT step is completed successfully during RESTARTSWACT.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES

Command description

This command will initiate the CC Warm SWACT sequence provided all the pre-check activities that are invoked complete successfully. A series of checks is run before a CC warm SWACT occurs. If all checks pass, the CC Warm SWACT steps are executed. The execution result of each CC Warm SWACT step is displayed. This feature will add a CC Warm SWACT steps.

The NOMATCH option should be used by qualified NT personnel only. If the customer uses this option, an outage may occur that could be qualified as a telco procedural error.

If the user stops the process by means of HX, the CC warm SWACT will continue, but the messages will not be displayed.

Warning

Nil

Command syntax

RESTARTSWACT [<CHKTYPE> {NOMATCH}]

Parameter Definitions

Table 5-269 Parameter Definitions

PARAMETER	VALUE	DEFINITION
CHKTYPE		Default. Will invoke checking of all node statuses, and will perform comparison of node and device statuses between the ACTIVE and INACTIVE sides.
	NOMATCH	Optional. Will invoke checking of active side PM node status only, and will not invoke comparison of node or device status between the ACTIVE and INACTIVE sides. This option should only be used by qualified NT personnel. A telco procedural outage may occur if the customer uses this option.

Responses

Response - RESTARTSWACT FAIL

Explanation:

RESTARTSWACT fails due to the FASPECT step fail.

System action:

CC warm SWACT will be stopped for correction.

User action:

Check the SWCT log to identify the error. The user needs to correct the error before entering the command again.

Example:

```
>restartswact
Beginning SWACT checks:

All the SWACT checks have finished successfully.



ACTIVE DEFAULT SETTINGS:
NOMATCH    set OFF
Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
All Pre-SWACT checks completed. Starting Warm SWACT now.
********   The cursor will not be returned  ********
********  unless a critical failure occurs. ********
******** Now monitoring Warm SWACT messages.********
Pre-initialization done

Communication established

Exchange of data with the mate done

The application for SWACT has failed.
Failed to transfer data (FASPECT)
```

Response - RESTARTSWACT SUCCESSFUL

Explanation:

RESTARTSWACT is completed successfully.

System action:

N/A

User action:

N/A

Examples

```
>restartswact
Beginning SWACT checks:

All the SWACT checks have finished successfully.




ACTIVE DEFAULT SETTINGS:
NOMATCH    set OFF
Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"):
>y
All Pre-SWACT checks completed. Starting Warm SWACT now.
********   The cursor will not be returned  ********
********  unless a critical failure occurs. ********
******** Now monitoring Warm SWACT messages.********
Pre-initialization done

Communication established

Exchange of data with the mate done

Transfer of data (FASPECT) done

Data estimation done

Store allocated on active CC

Store allocated on inactive CC

AMA processing completed

Call processing in PM stopped

Call processing I/O in CC stopped

Call data extracted

Data transfer completed
```

Notes

Nil

Command name: ABORTSWACT

A message will be displayed to indicate whether the FASPECT step is completed successfully during ABORTSWACT.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES

Command description

This command will initiate the CC Warm SWACT sequence provided all the pre-check activities that are invoked complete successfully. A series of checks is run before a CC warm SWACT occurs. If all checks pass, the CC Warm SWACT steps are executed. The execution result of each CC Warm SWACT step is displayed. This feature will add a CC Warm SWACT steps.

The NOMATCH and NOCHECK options should be used by qualified NT personnel only. If the customer uses this option, an outage may occur that could be qualified as a telco procedural error.

If the user stops the process by means of HX, the CC warm SWACT will continue, but the messages will not be displayed.

Warning

Nil

Command syntax

ABORTSWACT [<CHKTYPE> {NOMATCH, NOCHECK}]

Parameter Definitions

Table 5-270 Parameter Definitions

PARAMETER	VALUE	DEFINITION
CHKTYPE		Default. Will invoke checking of all node statuses, and will perform comparison of node and device statuses between the ACTIVE and INACTIVE sides.
	NOMATCH	Optional. Will invoke checking of active side PM node status only, and will not invoke comparison of node or device status between the ACTIVE and INACTIVE sides. This option should only be used by qualified NT personnel. A telco procedural outage may occur if the customer uses this option.
	NOCHECK	Optional. Will override the checking of ACTIVE side PM node statuses. Comparison of node and device statuses between the ACTIVE and INACTIVE sides will not be invoked. This option should only be used by qualified NT personnel. A telco procedural outage may occur if the customer uses this option.

Responses

Response - ABORTSWACT FAIL

Explanation:

ABORTSWACT fails due to the FASPECT step fail.

System action:

CC warm SWACT will be stopped for correction.

User action:

Check the SWCT log to identify the error. The user needs to correct the error before entering the command again.

Example:

```
>abortswact
Beginning SWACT checks:

All the SWACT checks have finished successfully.




ACTIVE DEFAULT SETTINGS:
NOMATCH    set OFF
Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"):
>y
All Pre-SWACT checks completed. Starting Warm SWACT now.
********   The cursor will not be returned  ********
********  unless a critical failure occurs. ********
******** Now monitoring Warm SWACT messages.********
Pre-initialization done

Communication established

Exchange of data with the mate done

The application for SWACT has failed.
Failed to transfer data (FASPECT)
```

Response - ABORTSWACT SUCCESSFUL

Explanation:

NORESTARTSWACT is completed successfully.

System action:

N/A

User action:

N/A

Examples

```
abortswact
Beginning SWACT checks:

All the SWACT checks have finished successfully.




ACTIVE DEFAULT SETTINGS:
NOMATCH    set OFF
Do you wish to continue?
Please confirm (“YES”, “Y”, “NO”, or “N”):
>y
All Pre-SWACT checks completed. Starting Warm SWACT now.
********   The cursor will not be returned  ********
********  unless a critical failure occurs. ********
******** Now monitoring Warm SWACT messages.********
Pre-initialization done

Communication established

Exchange of data with the mate done

Transfer of data (FASPECT) done

Data estimation done

Store allocated on active CC

Store allocated on inactive CC

AMA processing completed

Call processing in PM stopped

Call processing I/O in CC stopped

Call data extracted

Data transfer completed
```

Notes

Nil

Command name: MODCHECK

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES

Command description

This command compares CC warm SWACT applications that exist on the Active side of the switch to CC warm SWACT applications that exist on the Inactive side of the switch and reports those applications that are missing on the Inactive side. The user may manually override missing applications so that they are not reported using the override parameter of this command. Manual overrides are reset using the reset parameter of the command.

Warning

Nil

Command syntax

MODCHECK - Facility to check for necessary SWACT modules on the INACTIVE side and output any of the missing modules. This command is valid only on the ACTIVE side when the switch is out of sync.

Parms:

No parm. - DEFAULT. This will invoke checking for all modules necessary to perform a successful CC warm SWACT. Overridden modules are excluded from checking.

<action {OVERRIDE, RESET}>

- Optional. OVERRIDE will disable the functions performed by the selected modules. The possible modules for OVERRIDE are displayed with the module numbers listed, and the user selects modules by entering the module number displayed on the MAP. RESET will enable the functions performed by the modules that were previously disabled by the OVERRIDE option.

Parms: [<ACTION> {OVERRIDE, RESET}]

Parameter Definitions

Table 5-271 Parameter Definitions

PARAMETER	VALUE	DEFINITION
ACTION	OVERRIDE	OVERRIDE disables functions performed by modules that are selected from a menu.
	RESET	RESET enables functions performed by previously overridden modules.This parameter is optional.

Responses

Response - MODCHECK Override

Explanation:

An example is shown in page 678 when the MODCHECK OVERRIDE command is invoked from SWACTCI. The user must enter the number of the application that he wishes to override, or if the user does not wish to override any SWACT applications, then he may enter zero to quit and move on to the next step. The list of applications will vary, depending on what applications are in the load. In addition, once an application has been manually overridden it will no longer appear in the list of applications generated by this command until it is reset using the RESET parameter of the MODCHECK command.

System action:

The chosen application will be marked as manually overridden, so, it will not run during the SWACT.

User action:

Enter the number of the application that you wish to override.

Example:

The added information is highlighted.

```
The following is a list of SWACT
applications from which to choose:

  0 QUIT MODCHECK OVERRIDE          1 GOTO NEXT APPLICATION TYPE
  2 Call Processing Data            3 IPML DATA
  4 Device Status Data              5 Status Update Data
  6 CCS7 MTP DATA                   7 CCS7 SCCP Data

Enter the number associated with the application
that you wish to override:

>1
The following is a list of FASPECT
applications from which to choose:

  0 QUIT MODCHECK OVERRIDE          1 GOTO NEXT APPLICATION TYPE
  2 APPL XYZ                         3 APPL ABC

Enter the number associated with the application
that you wish to override: 2

Application APPL XYZ                  has been chosen for override.

Are you sure you wish to override it?

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

The following is a list of FASPECT
applications from which to choose:

  0 QUIT MODCHECK OVERRIDE          1 GOTO NEXT APPLICATION TYPE
  2 APPL ABC

Enter the number associated with the application
that you wish to override:

>0
The following applications have been automatically overridden:

Module       Application Name                  Reason
============================================================

XYZ       :  APPL XYZ                       :  Manual override

MODCHECK command has passed.
```

Notes

Nil

Alarms

Alarm name: N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AR2026mm.aa13

Directories

Table of New/Modified Directories

Table 5-272 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SWACTCI	CHANGED	N/A	SuperNode and BRISC	RES
MTCSWACTCI	CHANGED	N/A	SuperNode and BRISC	RES
BCSUPDATE	CHANGED	N/A	SuperNode and BRISC	RES

Accessing directory: SWACTCI

To access

CI> BCSUPDATE

BCSUPDATE> SWACTCI

To return to CI

> QUIT ALL

Accessing directory: MTCSWACTCI

To access

CI> MTCSWACTCI

To return to CI

> QUIT

Accessing directory: BCSUPDATE

To access

CI> BCSUPDATE

To return to CI

> QUIT

Commands

SWACTTRAK, DISPLAY, POSTSWACT, RESTOREXECS

This feature adds new information to the output of the following commands. There is no change in the existing fields in the output. The syntax of these commands are listed for referrence purposes, however, there is no change made to the syntax of these commands. The new additional information is described in the Response section of each command.

Table of New/Modified Commands

Table 5-273 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
SWACTTRAK	CHANGED	N/A	SWACTCI, MTCSWACTCI
DISPLAY	CHANGED	N/A	SWACTCI
POSTSWACT	CHANGED	N/A	BCSUPDATE
RESTOREXECS	CHANGED	N/A	SWACTCI

Command name: SWACTTRAK

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES - available under TOOLSUP.

Command description

This command accesses the SWACTTRAK tool which collects detailed SWACT performance measurements for NORESTARTSWACT (NRS), RESTARTSWACT, MTCSWACT and ABORTSWACT.

Warning

CC WARM SWACT will take in the order of 100ms longer if SWACTTRAK is ON. This will happen because performance measurements are collected during the call processing interruption window. SWACT time is not affected if SWACTTRAK is OFF.

Command syntax

```
SWACTTRAK <Function> {QUERY,
                     ON,
                     OFF,
                     DISPLAY [<Level> {BRIEF,
                                       DETAIL,
                                       FILE <FILE NAME> STRING}]}
```

Parameter Definitions

Table 5-274 Parameter Definitions

PARAMETER	VALUE	DEFINITION
QUERY		Queries SWACTTRAK to determine if the tool is ON or OFF, and if SWACTTRAK has collected any data.
ON		Turns SWACTTRAK on.
OFF		Turns SWACTTRAK off.
DISPLAY	BRIEF	Display data collected by SWACTTRAK in brief format.
	DETAIL	Display data collected by SWACTTRAK in detail format. This is the default value.
	FILE *filename*	Put detailed SWACTTRAK output into a file named *filename* in sfdev.

Responses

The following section gives a description of the new output of the SWACTTRAK command with the DISPLAY option. A new step indicating the Partial Service Interruption time is added to the output of the SWACTTRAK. The string name of Total Service Interruption time is also modified in the SWACTTRAK report to indicate the Warm SWACT time. This change will make the string to be consistent with the output of DISPLAY SWACTTIME and SWCT101 log.

SWACTTRAK command is available in both SWACTCI and MTCSWACTCI directories. For illustration purpose, the samples given below are done under the MTCSWACTCI directory.

Response - DISPLAY option

```
MTCSWACTCI> SWACTTRAK DISPLAY
(SWACTTRAK report)
```

Explanation:

The SWACTTRAK report is displayed. A new line containing the Partial Service Interruption time is added in the output of the SWACTTRAK report (as **highlighted**). The content of the report will vary based on switch configuration and the type of SWACT performed. A sample SWACTTRAK output is listed in Figure 1 below. A sample output of the SWACTTRAK BRIEF format is also given in the following Figure 2. The time values, application names and module names in the example have been placed there only for the purpose of this example. Actual value is office dependent.

System action:

N/A

User action:

SWACTTRAK report will be generated if the SWACTTRAK DISPLAY command is issued.

Notes

Please note that SWACT will take longer if SWACTTRAK is ON. It is because extra information is logged during SWACT to generate the SWACTTRAK report. SWACT time is not affected if SWACTTRAK is OFF.

The actual timing values are office dependent.

Examples

The following examples show the user input and responses related to the SWACTTRAK command. Note that the SWACTTRAK command can be accessed under either SWACTCI or MTCSWACTCI directories. For the following examples, MTCSWACTCI is used for illustration.

Example 1:

```
MTCSWACTCI> SWACTTRAK DISPLAY
(Please refer to Figure 1 for a sample of SWACTTRAK report)
```

```
MASPECT Data Transfer              -----------Module-----------  -Sent-- -Rcvd-- -Invoc-     16:12:27.486  16:12:35.854  00:08.368
     CCS7 MTP DATA                 C7MTPSWT                        251       0      11                                   00:02.855
     CCS7 SCCP Data                SCCPSWCT                         58       0       3                                   00:00.496
     XPM Node Data                 XPMASWCT                          8       0       1                                   00:00.123
     MS Load and Resource Data     MSCSWCT                         190       0       2                                   00:00.389
     System Date Transfer          DATESWCT                          3       0       1                                   00:00.219
     Link Data                     SWLINK                         1020       0       1                                   00:00.418
     IOUI Table Transfer           IOSWCTMI                       2875       0      10                                   00:03.486
     SIPC Data                     SIPCSWCT                          2       0       1                                   00:00.167
     CCS7 External Router Data     C7RTRSWT                          1       0       1                                   00:00.215
    9 MAspects Transferred                                        4408       0      31

NRS INACTIVE Side Procs            -----------Module-----------  -----Procedure-----         16:12:35.856  16:12:38.158  00:02.302
                                   TRKDUI                        NORESTARTSWACT_TRK_I                                 00:00.119
                                   TRKDUI                        RTS_ALL_                                             00:01.814
                                   SRCMISC                       NRS_SRC_                                             00:00.080
                                   SWTEMPCP                      CALLP_NRS_I                                          00:00.001
                                   LINEZTPA                      NORESTAR                                             00:00.164
                                   C7MTPSWT                      NRS_UPDA                                             00:00.004
                                   ISUPMCOM                      ISUP_NORESTARTSWACT_I                                00:00.059
    7 Proc(s) Executed

ASPECT Estimation                  -----------Module-----------  -Estim-                     16:12:43.781  16:12:43.885  00:00.104
     Call Processing Data          SWTEMPCP                       2048                                                   00:00.087
     CCS7 MTP DATA                 C7MTPSWT                          1                                                   00:00.002
     ACD Application Data          ACDSWACT                       2048                                                   00:00.006
     SWACT Time Transfer Data      SWCTNRUI                          3                                                   00:00.003
     SWCTTRAK Tool                 SWCTUI                         2040                                                   00:00.002
     SWACT Base Activity           SWCTUI                            0                                                   00:00.002
    6 Aspects Estimated                                           7140

ASPECT Store Allocation                                          15360 (Both Sides)        16:12:43.888  16:12:44.196  00:00.308

NRS Before CALLP Stopped Procs     -----------Module-----------  -----Procedure-----         16:12:47.290  16:13:02.236  00:14.946
                                   DKFM09MI                      DKFM0900_S                                           00:14.937
    1 Proc(s) Executed
PM CALLP Stopped                                                                           16:13:02.237  16:13:02.260  00:00.023

ASPECT Data Extract                -----------Module-----------  Extract         -Invoc-     16:13:02.265  16:13:02.451  00:00.186
     CCS7 MTP DATA                 C7MTPSWT                          1               1                                   00:00.165
     ACD Application Data          ACDSWACT                       1022               1                                   00:00.008
     SWACT Time Transfer Data      SWCTNRUI                          3               1                                   00:00.003
     SWCTTRAK Tool                 SWCTUI                          954               2                                   00:00.003
    4 Aspects Extracted                                           2087               6
ASPECT Data Transfer                                           --Sent-         --Msgs-     16:13:02.454  16:13:02.610  00:00.156
     Aspects Transferred                                          2160              18
CM Mtce does SWACT                                                                         16:13:02.610  16:13:03.036  00:00.426

SWACT Process START on New Side                                                            16:13:03.036        -           -

NRS Before SRC Procs               -----------Module-----------  -----Procedure-----         16:13:03.037  16:13:03.042  00:00.005
                                   SWTEMPCP                      CALLP_NRS_B                                          00:00.002
                                   LIUSRCAS                      LIU_NORE                                             00:00.001
    2 Proc(s) Executed

CALLP PMs Recovery                                                                         16:13:03.042  16:13:04.724  00:01.682
```

Continuation of Figure 1: Sample output of SWACTTRAK report

```
NRS After SRC Procs             ----------Module----------  -----Procedure-----        16:13:04.724  16:13:04.763  00:00.039
                                MSWACTUI                    MSWACT_ST                                               00:00.020
                                C7MTPSWT                    C7_AFTER                                                00:00.002
                                C7SSTEST                    SST_AUDI                                                00:00.001
                                NIUSRCUI                    NIU_NORE                                                00:00.002
                                ISUPMCOM                    ISUP_NORESTARTSWACT_P                                   00:00.012
    5 Proc(s) Executed

ASPECT Data Insert              ----------Module----------  -Insert         -Invoc-     16:13:04.769  16:13:04.830  00:00.061
     CCS7 MTP DATA              C7MTPSWT                         1               1                                  00:00.008
     ACD Application Data       ACDSWACT                      1022               1                                  00:00.002
     SWACT Time Transfer Data   SWCTNRUI                         3               1                                  00:00.021
     SWCTTRAK Tool              SWCTUI                        1061               3                                  00:00.030
    4 Aspects Inserted                                       2087               6
CALLP Started (CM)                                                                  16:13:04.833  16:13:05.160  00:00.327

Exec Load PMs                                                                             -       16:13:05.166      -

Insert BitMaps & Start PM CALLP                                                     16:13:05.166  16:13:05.235  00:00.069

NRS After SWACT Completed Procs ----------Module----------  -----Procedure-----        16:13:05.281  16:13:07.953  00:02.672
                                DMAUBP                      DM_AUDIT_W                                              00:00.001
                                DMAUDP                      DM_AUDIT_W                                              00:00.002
                                DMOMP                       DM_OM_WA                                                00:00.002
                                DELTAP                      DELTAP_AF                                               00:00.003
                                LOGTAB                      RESTART_                                                00:00.001
                                MATETALK                    MTMI_AFT                                                00:00.055
                                MOVEINAC                    MOVEBCSP                                                00:00.003
                                MOVEACT                     MOVEACP_                                                00:00.002
                                APPLYUI                     APPLYP_A                                                00:00.026
                                APPLCNTP                    CNTP_AFT                                                00:00.002
                                TRKDUI                      NORESTARTSWACT_TRK_A                                    00:01.773
                                DXFRNRUI                    DXFR_AFT                                                00:00.003
                                PRLDEXUI                    DEALLOC_                                                00:00.020
                                C7MAPUP                     SEND_NOR                                                00:00.002
                                SNOPCAUD                    SNOPCAUD_N                                              00:00.002
                                SNOPCCTL                    SNOPC_AP                                                00:00.002
                                DACUTIL                     DCH_AFTE                                                00:00.003
                                ISUPMCOM                    ISUP_AFT                                                00:00.005
                                PRIDONP                     CREATE_Q                                                00:00.004
                                IBNACAUD                    CONSOLE_A                                               00:00.002
                                BLFPRC                      BLF_INIT_                                               00:00.571
                                FBSEDTUI                    FBS_AFTER_N                                             00:00.013
                                UCDSWACT                    SMDI_INI                                                00:00.161
                                MPHQPBPR                    CREATE_M                                                00:00.005
                                MPHQAUDT                    CREATE_M                                                00:00.003
                                SMUIMNTI                    SMUI_INI                                                00:00.002
                                PSCTC                       NRS_RTS_                                                00:00.002
   27 Proc(s) Executed

MTCPOSTSWACT Execution                                                              16:13:53.536  16:14:30.583  00:37.047
```

Continuation of Figure 1: Sample output of SWACTTRAK report

```
AFTER SWACT Steps              -----------Module-----------  -----Procedure----- Result  16:13:54.524  16:13:57.915  00:03.391
                               MSWTSTEP                     MSWACT_E                OK                                 00:00.004
                               MSWTSTEP                     MSWACT_R                OK                                 00:00.008
                               APPLDIRP                     MSWACT_D                OK                                 00:03.076
                               SOMPOSTP                     MSWACT_O                OK                                 00:00.004
                               TRKMATCH                     MSWACT_R                OK                                 00:00.007
                               APPLATT                      MSWACT_R                OK                                 00:00.004
                               C7RTRSWT                     C7_RTR_MSWACT_OUTOF     OK                                 00:00.006
                               PRIDONP                      MSWACT_A                OK                                 00:00.004
                               LNMATCH                      MSWACT_REST             OK                                 00:00.004
                               DCTPROC                      MSWACT_DCT_PROCESS_     OK                                 00:00.274
   10 Proc(s) Executed

Prompt the User to SYNC                                                              16:13:58.615  16:14:23.569  00:24.954
```

Continuation of Figure 1: Sample output of SWACTTRAK report

```
SWACT Timing Report Version 2 for ECOMA MTCSWACT finished at 1995/07/20 16:14:23.573
  Old Side: CPU0 CM on 9X13 68020                Product: No product info. available
      DRUs: BAS06AN TL05AN TCNA05AN
  New Side: CPU1 CM on 9X13 68020                Product: No product info. available
      DRUs: BAS06AN TL05AN TCNA05AN
  Configuration Info: JNET, 3 XPM(s), 5 PM(s)
------------SWACT Step----------  ----------Details---------  ----------Data----------  --StartTime-  ---EndTime--  -Duration
MTCSWACT Process Execution                                                               16:07:04.537  16:14:23.573  07:19.036

INSYNC Checks                                                                            16:07:04.601  16:07:04.883  00:00.282
   10 Proc(s) Executed

INSYNC Steps                                                                             16:07:04.885  16:07:06.657  00:01.772
   13 Proc(s) Executed

Prompt the User to DROPSYNC                                                              16:07:06.662  16:07:22.851  00:16.189

DROPSYNC and Inactive RESTART      RELOAD                                                16:07:22.860  16:11:16.545  03:53.685

INACTIVE Side Steps                                                                      00:00:00.000  16:11:30.405  11:30.405
    3 Proc(s) Executed

ACTIVE Side Steps                                                                        16:07:23.288  16:07:23.295  00:00.007
    2 Proc(s) Executed

Prompt the User to SWACT                                                                 16:11:31.671  16:12:09.022  00:37.351

ACTIVE Side Checks                                                                       16:12:12.359  16:12:17.592  00:05.233
   10 Proc(s) Executed

SWACT Process Execution            NORESTARTSWACT                                        16:12:18.824  16:13:08.131  00:49.307
Warm SWACT Time                                                                          16:13:02.260  16:13:05.230  00:02.970
Partial Recovery Time                                                                    16:13:05.231  16:13:15.678  00:10.447

Call Statistics                                          Stable  Extract  Insert
  Number of Calls:                                          0        0       0

    9 MAspects Transferred                                4408       0      31

NRS INACTIVE Side Procs                                                                  16:12:35.856  16:12:38.158  00:02.302
    7 Proc(s) Executed

ASPECT Estimation                                        -Estim-                         16:12:43.781  16:12:43.885  00:00.104
    6 Aspects Estimated                                    7140

ASPECT Store Allocation                                  15360 (Both Sides)              16:12:43.888  16:12:44.196  00:00.308

NRS Before CALLP Stopped Procs                                                           16:12:47.290  16:13:02.236  00:14.946

PM CALLP Stopped                                                                         16:13:02.237  16:13:02.260  00:00.023

ASPECT Data Extract                                      Extract         -Invoc-         16:13:02.265  16:13:02.451  00:00.186

      Aspects Transferred                                 2160             18
CM Mtce does SWACT                                                                       16:13:02.610  16:13:03.036  00:00.426
```

Figure 2: SWACTTRAK brief report

```
SWACT Process START on New Side                                          16:13:03.036        -           -

NRS Before SRC Procs                                                     16:13:03.037  16:13:03.042  00:00.005
    2 Proc(s) Executed

CALLP PMs Recovery                                                       16:13:03.042  16:13:04.724  00:01.682

NRS After SRC Procs                                                      16:13:04.724  16:13:04.763  00:00.039
    5 Proc(s) Executed

ASPECT Data Insert                                -Insert        -Invoc-  16:13:04.769  16:13:04.830  00:00.061
    4 Aspects Inserted                               2087              6
CALLP Started (CM)                                                       16:13:04.833  16:13:05.160  00:00.327

Exec Load PMs                                                                  -       16:13:05.166      -

Insert BitMaps & Start PM CALLP                                          16:13:05.166  16:13:05.235  00:00.069

NRS After SWACT Completed Procs                                          16:13:05.281  16:13:07.953  00:02.672
   27 Proc(s) Executed

MTCPOSTSWACT Execution                                                   16:13:53.536  16:14:30.583  00:37.047

AFTER SWACT Steps                                                        16:13:54.524  16:13:57.915  00:03.391
   10 Proc(s) Executed

Prompt the User to SYNC                                                  16:13:58.615  16:14:23.569  00:24.954
```

Continuation of Figure 2: SWACTTRAK brief report

Command name: DISPLAY

This feature only affects the output of the DISPLAY command with the SWACTTIME option. A new Partial Service Interruption Time is added to the output. As well, for the output portion of XPM exec completion time, the completion time of both active and inactive units are displayed.

Therefore, the explanation is given according to the new output of the DISPLAY SWACTTIME command.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES.

Command description

This command displays information collected over a CC Warm SWACT. There are several options under this command allowing various types of information to be displayed.

The output of the SWACTTIME option is modified by this feature to include a new line indicating the Partial Service Interruption Time of the CC Warm SWACT. As well, for the output portion of XPM exec completion time, the completion time of both active and inactive units are displayed.

With the addition of the active unit exec completion time for XPMs, in order to preserve the length line of the output report to be within 80 characters, the active and inactive exec status will be shortened to be within 3 characters each unit. The following gives a summary of all possible exec statuses that can be output.

Table 5-275 XPM Exec Status

STATUS	BEFORE	AFTER
Nil Status	Nil	Nil
Execs Loaded	Loaded	Ld
Execs Switched	Switched	Sw
No Execs Delta	No Delta	ND
Execs Failed	Failed	Fl

Warning

None.

Command syntax

```
DISPLAY <What> {MISMATCH,
                SWACTTIME,
                BADNODES,
                SWACTAPP,
                DEVSTATAPP,
                NRSAPPL}
```

Parameter Definitions

Table 5-276 Parameter Definitions

PARAMETER	VALUE	DEFINITION
MISMATCH	MISMATCH	Lists all device status applications whose status differ between the OLD and NEW sides.
SWACTTIME	SWACTTIME	Displays the overall time taken to recovery the PMs, to handle execs loading and to resume call processing over a CC Warm SWACT.
BADNODES	BADNODES	Displays all NODES whose status is not OK and not OFFLINE.
SWACTAPP	SWACTAPP	Displays all bound in SWACT applications and their version information.
DEVSTATAPP	DEVSTATAPP	Displays all STATUSUPDATE/ STATUSCHECK applications currently bound in.
NRSAPPL	NRSAPPL	Displays all NORESTARTSWACT applications currently bound in.

Responses

The following is an example of the response of the DISPLAY SWACTTIME command. The timing values are for illustration purposes only.

Response - SWACTTIME option

```
SWACTCI> DISPLAY SWACTTIME

(A sample output of SWACT timing values is displayed. See the
example.)
```

Explanation:

SWACT timing report containing information on PM recovery, handling execs times is displayed.

An additional line containing the Partial Service Interruption time is added in the output of DISPLAY SWACTTIME as **highlighted**.

System action:

N/A

User action:

SWACT timing report will be generated if the DISPLAY SWACTTIME command is issued.

Notes

The actual timing values are office dependent.

Examples

```
SWACTCI> DISPLAY SWACTTIME
Recovery Times for CO: SN100    Office Type:     OFFCOMBTOPS        rc106bc

  Processor: CM on 9X10 88100  Processor Option: SN60   Network Type: ENET
================================================================================
Summary Information
===================

First SERIES1 PM recovered at : 17:09:55.476
Last SERIES1 PM recovered at  : 17:09:55.795
First SERIES2 PM recovered at : 17:09:55.705
Last SERIES2 PM recovered at  : 17:09:55.850

Total number of SERIES 1 Nodes: 25
Total number of SERIES 2 Nodes: 8

SERIES1 recovery times
======================

Node:       Nodeno:    Completion Time:     Node Status:     Cside Bit:
=====       =======    ================     ============     ==========
DCM 0         131        17:09:55.501          Ok              FALSE
DCM 1         132        17:09:55.490          Ok              FALSE
DCM 2         133        17:09:55.570          Ok              FALSE
LM 0          134        17:09:55.476          Ok              FALSE
LM 1          135        17:09:55.574          Ok              FALSE
LM 2          136        17:09:55.652          Ok              FALSE
LM 3          137        17:09:55.645          Ok              FALSE
RMM 0         154        17:09:55.702          Ok              FALSE
RMM 10        155        17:09:55.794          Ok              FALSE
RMM 11        156        17:09:55.795          Ok              FALSE
TM8 0         157        17:09:55.492          Ok              FALSE
MTM 0         158        17:09:55.482          Ok              FALSE
TM8 1         159        17:09:55.576          Ok              FALSE
TM8 2         160        17:09:55.478          Ok              FALSE
TM8 3         161        17:09:55.480          Ok              FALSE
MTM 1         162        17:09:55.484          Ok              FALSE
MTM 2         163        17:09:55.496          Ok              FALSE
MTM 3         164        17:09:55.503          Ok              FALSE
MTM 4         165        17:09:55.577          Ok              FALSE
MTM 5         166        17:09:55.485          Ok              FALSE
MTM 6         167        17:09:55.505          Ok              FALSE
MTM 7         168        17:09:55.506          Ok              FALSE
T8A 0         169        17:09:55.488          Ok              FALSE
MTM 9         170        17:09:55.579          Ok              FALSE
OAU 0         171        17:09:55.487          Ok              FALSE

SERIES2 recovery times
======================

Node:       Nodeno:    Completion Time:     Node Status:     Cside Bit:
=====       =======    ================     ============     ==========
LGC 1         138        17:09:55.716          Ok              FALSE
LGC 2         139        17:09:55.730          Ok              FALSE
LTC 0         140        17:09:55.714          Ok              FALSE
LGC 0         141        17:09:55.720          Ok              FALSE
DTC 0         142        17:09:55.708          Ok              FALSE
DTC 1         143        17:09:55.705          Ok              FALSE
```

```
RCC 0         144        17:09:55.850          Ok              FALSE
ESA 1         172        17:09:55.788          Ok              FALSE

Display completed.

Beginning display of EXEC Information:


Beginning display of SERIES1 exec times...

Node     Nodeno  Exec Status     Start         Complete    Callp Resumed
====     ======  ===========     =====         ========    =============
DCM 0      131     No Delta   17:09:55.651   17:09:55.651   17:09:57.257
DCM 1      132     No Delta   17:09:55.593   17:09:55.593   17:09:57.442
DCM 2      133     No Delta   17:09:55.664   17:09:55.664   17:09:57.693
LM 0       134     No Delta   17:09:55.589   17:09:55.590   17:09:57.787
LM 1       135     No Delta   17:09:55.664   17:09:55.665   17:09:57.834
LM 2       136     No Delta   17:09:55.682   17:09:55.682   17:09:57.907
LM 3       137     No Delta   17:09:55.679   17:09:55.679   17:09:57.981
TM8 0      157     No Delta   17:09:55.646   17:09:55.646   17:09:58.932
MTM 0      158     No Delta   17:09:55.591   17:09:55.591   17:09:58.973
TM8 1      159     No Delta   17:09:55.665   17:09:55.666   17:09:59.021
TM8 2      160     No Delta   17:09:55.590   17:09:55.590   17:09:59.084
TM8 3      161     No Delta   17:09:55.590   17:09:55.591   17:09:59.116
MTM 1      162     No Delta   17:09:55.591   17:09:55.591   17:09:59.174
MTM 2      163     No Delta   17:09:55.647   17:09:55.647   17:09:59.204
MTM 3      164     No Delta   17:09:55.653   17:09:55.653   17:09:59.243
MTM 4      165     No Delta   17:09:55.666   17:09:55.666   17:09:59.288
MTM 5      166     No Delta   17:09:55.592   17:09:55.592   17:09:59.321
MTM 6      167     No Delta   17:09:55.654   17:09:55.654   17:09:59.360
MTM 7      168     No Delta   17:09:55.654   17:09:55.654   17:09:59.394
T8A 0      169     No Delta   17:09:55.593   17:09:55.593   17:09:59.444
MTM 9      170     No Delta   17:09:55.666   17:09:55.666   17:09:59.481
OAU 0      171     No Delta   17:09:55.592   17:09:55.592   17:09:59.520

Beginning display of SERIES2 exec times...

Act  Inact                Active      Inactive
Node Nodeno Stat Stat     Start       Complete    Complete   Callp Resumed
==== ====== ==== =====    =====       ========    ========   =============
LGC 1 138  Sw   Sw   17:09:55.719 17:09:57.535 17:09:57.555 17:09:58.356
LGC 2 139  Sw   Sw   17:09:55.732 17:09:57.408 17:09:57.428 17:09:58.406
LTC 0 140  Sw   Sw   17:09:55.718 17:09:57.336 17:09:57.356 17:09:58.531
LGC 0 141  Sw   Sw   17:09:55.721 17:09:57.692 17:09:57.722 17:09:58.610
DTC 0 142  Sw   Sw   17:09:55.716 17:09:57.145 17:09:57.165 17:09:58.719
DTC 1 143  Sw   Sw   17:09:55.710 17:09:57.144 17:09:57.164 17:09:58.784
RCC 0 144  Sw   Sw   17:09:55.852 17:09:57.837 17:09:57.857 17:09:58.881
ESA 1 172  Sw   Nil  17:09:55.796 17:09:56.046 00:00:00.000 00:00:00.000

Display completed.

Warm SWACT Time: 00:00:03.697
Partial Recovery Time: 00:02.263
CC warm SWACT type was: NORESTARTSWACT
```

Command name: POSTSWACT

This feature only affects the output of the POSTSWACT command in the BCSUPDATE directory. A new Partial Service Interruption Time is added to the output. As well, the exec completion times of both active and inactive units of XPM are displayed in the summary output displayed at the end of the POSTSWACT command. Therefore, the explanation is given according to the SWACTTIME portion of the POSTSWACT command.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES.

Command description

The last part of the output of this command contains information collected over a CC Warm SWACT. This feature adds in the output of the Partial Service Interruption time. As well, for the output portion of XPM exec completion time, the completion time of both active and inactive units are displayed.

With the addition of the active unit exec completion time for XPMs, in order to preserve the length line of the output report to be within 80 characters, the active and inactive exec status will be shortened to be within 3 characters each unit. The following gives a summary of all possible exec statuses that can be output.

Table 5-277 XPM Exec Status

STATUS	BEFORE	AFTER
Nil Status	Nil	Nil
Execs Loaded	Loaded	Ld
Execs Switched	Switched	Sw
No Execs Delta	No Delta	ND
Execs Failed	Failed	Fl

The output of the SWACTTIME option is modified by this feature to include a new line indicating the Partial Service Interruption Time of the CC Warm SWACT.

Warning

None.

Command syntax

```
POSTSWACT
```

Parameter Definitions

Table 5-278 Parameter Definitions

PARAMETER	VALUE	DEFINITION
None		

Responses

The following is an example of the response of the POSTSWACT command. The sample output only contains the DISPLAY_SWACT_TIME step which is affected by this feature. The timing values are for illustration purposes only.

Response

```
BCSUPDATE> POSTSWACT

(A sample output of SWACT timing values is displayed. See
the example.)
```

Explanation:

SWACT timing report containing information on PM recovery, handling execs times is displayed.

An additional line containing the Partial Service Interruption time is added in the output of DISPLAY_SWACT_TIME step as **highlighted**. As well, for the output portion of XPM exec completion time, the completion times of both active and inactive units are displayed.

System action:

N/A

User action:

SWACT timing report will be generated as part of the output if the POSTSWACT command is issued.

Notes

The actual timing values are office dependent.

Examples

```
BCSUPDATE> POSTSWACT

...
DISPLAY_SWACT_TIME               executing
Recovery Times for CO: SN100    Office Type:     OFFCOMBTOPS       rc106bc

  Processor: CM on 9X10 88100  Processor Option: SN60   Network Type: ENET
=========================================================================
======
Summary Information
===================

First SERIES1 PM recovered at : 17:09:55.476
Last SERIES1 PM recovered at  : 17:09:55.795
First SERIES2 PM recovered at : 17:09:55.705
Last SERIES2 PM recovered at  : 17:09:55.850

Total number of SERIES 1 Nodes: 25
Total number of SERIES 2 Nodes: 8

SERIES1 recovery times
======================

Node:       Nodeno:    Completion Time:     Node Status:     Cside Bit:
=====       =======    ================     ============     ==========
DCM 0         131        17:09:55.501           Ok              FALSE
DCM 1         132        17:09:55.490           Ok              FALSE
DCM 2         133        17:09:55.570           Ok              FALSE
LM 0          134        17:09:55.476           Ok              FALSE
LM 1          135        17:09:55.574           Ok              FALSE
LM 2          136        17:09:55.652           Ok              FALSE
LM 3          137        17:09:55.645           Ok              FALSE
RMM 0         154        17:09:55.702           Ok              FALSE
RMM 10        155        17:09:55.794           Ok              FALSE
RMM 11        156        17:09:55.795           Ok              FALSE
TM8 0         157        17:09:55.492           Ok              FALSE
MTM 0         158        17:09:55.482           Ok              FALSE
TM8 1         159        17:09:55.576           Ok              FALSE
TM8 2         160        17:09:55.478           Ok              FALSE
TM8 3         161        17:09:55.480           Ok              FALSE
MTM 1         162        17:09:55.484           Ok              FALSE
MTM 2         163        17:09:55.496           Ok              FALSE
MTM 3         164        17:09:55.503           Ok              FALSE
MTM 4         165        17:09:55.577           Ok              FALSE
MTM 5         166        17:09:55.485           Ok              FALSE
MTM 6         167        17:09:55.505           Ok              FALSE
MTM 7         168        17:09:55.506           Ok              FALSE
T8A 0         169        17:09:55.488           Ok              FALSE
MTM 9         170        17:09:55.579           Ok              FALSE
OAU 0         171        17:09:55.487           Ok              FALSE

SERIES2 recovery times
======================
```

```
Node:       Nodeno:    Completion Time:     Node Status:     Cside Bit:
=====       =======    ================     ============     ==========
LGC 1         138        17:09:55.716           Ok              FALSE
LGC 2         139        17:09:55.730           Ok              FALSE
LTC 0         140        17:09:55.714           Ok              FALSE
LGC 0         141        17:09:55.720           Ok              FALSE
DTC 0         142        17:09:55.708           Ok              FALSE
DTC 1         143        17:09:55.705           Ok              FALSE
RCC 0         144        17:09:55.850           Ok              FALSE
ESA 1         172        17:09:55.788           Ok              FALSE

Display completed.

Beginning display of EXEC Information:


Beginning display of SERIES1 exec times...

Node     Nodeno  Exec Status     Start          Complete    Callp Resumed
====     ======  ===========     =====          ========    =============
DCM 0      131     No Delta   17:09:55.651   17:09:55.651   17:09:57.257
DCM 1      132     No Delta   17:09:55.593   17:09:55.593   17:09:57.442
DCM 2      133     No Delta   17:09:55.664   17:09:55.664   17:09:57.693
LM 0       134     No Delta   17:09:55.589   17:09:55.590   17:09:57.787
LM 1       135     No Delta   17:09:55.664   17:09:55.665   17:09:57.834
LM 2       136     No Delta   17:09:55.682   17:09:55.682   17:09:57.907
LM 3       137     No Delta   17:09:55.679   17:09:55.679   17:09:57.981
TM8 0      157     No Delta   17:09:55.646   17:09:55.646   17:09:58.932
MTM 0      158     No Delta   17:09:55.591   17:09:55.591   17:09:58.973
TM8 1      159     No Delta   17:09:55.665   17:09:55.666   17:09:59.021
TM8 2      160     No Delta   17:09:55.590   17:09:55.590   17:09:59.084
TM8 3      161     No Delta   17:09:55.590   17:09:55.591   17:09:59.116
MTM 1      162     No Delta   17:09:55.591   17:09:55.591   17:09:59.174
MTM 2      163     No Delta   17:09:55.647   17:09:55.647   17:09:59.204
MTM 3      164     No Delta   17:09:55.653   17:09:55.653   17:09:59.243
MTM 4      165     No Delta   17:09:55.666   17:09:55.666   17:09:59.288
MTM 5      166     No Delta   17:09:55.592   17:09:55.592   17:09:59.321
MTM 6      167     No Delta   17:09:55.654   17:09:55.654   17:09:59.360
MTM 7      168     No Delta   17:09:55.654   17:09:55.654   17:09:59.394
T8A 0      169     No Delta   17:09:55.593   17:09:55.593   17:09:59.444
MTM 9      170     No Delta   17:09:55.666   17:09:55.666   17:09:59.481
OAU 0      171     No Delta   17:09:55.592   17:09:55.592   17:09:59.520

Beginning display of SERIES2 exec times...

                 Act  Inact                Active      Inactive
Node     Nodeno Stat Stat     Start       Complete    Complete   Callp Resumed
====     ====== ==== =====    =====       ========    ========   =============
LGC 1     138  Sw   Sw   17:09:55.719 17:09:57.535 17:09:57.555 17:09:58.356
LGC 2     139  Sw   Sw   17:09:55.732 17:09:57.408 17:09:57.428 17:09:58.406
LTC 0     140  Sw   Sw   17:09:55.718 17:09:57.336 17:09:57.356 17:09:58.531
LGC 0     141  Sw   Sw   17:09:55.721 17:09:57.692 17:09:57.722 17:09:58.610
DTC 0     142  Sw   Sw   17:09:55.716 17:09:57.145 17:09:57.165 17:09:58.719
DTC 1     143  Sw   Sw   17:09:55.710 17:09:57.144 17:09:57.164 17:09:58.784
RCC 0     144  Sw   Sw   17:09:55.852 17:09:57.837 17:09:57.857 17:09:58.881
ESA 1     172  Sw   Nil  17:09:55.796 17:09:56.046 00:00:00.000 00:00:00.000
```

```
Display completed.

Warm SWACT Time: 00:00:03.697
Partial Recovery Time: 00:02.263
CC warm SWACT type was: NORESTARTSWACT
DISPLAY_SWACT_TIME              complete
```

Command name: RESTOREXECS

This feature only affects the output of the RESTOREXECS command. A new Partial Service Interruption Time is added to the output. As well, for the output portion of XPM exec completion time, the completion time of both active and inactive units are displayed.

Therefore, the explanation is given according to the new output of the RESTOREXECS command.

Command type

NON-MENU

Command target

SuperNode and BRISC.

Command availability

RES.

Command description

This command loads execs to the PMs. There are several options under this command allowing various types PM whose execs can be restored.

The output of the RESTOREXECS command is modified by this feature to include a new line indicating the Partial Service Interruption Time of the CC Warm SWACT. As well, for the output portion of XPM exec completion time, the completion time of both active and inactive units are displayed.

With the addition of the active unit exec completion time for XPMs, in order to preserve the length line of the output report to be within 80 characters, the active and inactive exec status will be shortened to be within 3 characters each unit. The following gives a summary of all possible exec statuses that can be output.

Table 5-279 XPM Exec Status

STATUS	BEFORE	AFTER
Nil Status	Nil	Nil
Execs Loaded	Loaded	Ld
Execs Switched	Switched	Sw
No Execs Delta	No Delta	ND
Execs Failed	Failed	Fl

Warning

None.

Command syntax

```
 RESTOREXECS - Load EXECs to any or all PM and XPM nodes

WARNING -  A call processing outage will occur on peripherals that
            will receive EXECs.

  Parms:
     TM     - Load EXECs to all TM nodes.
     DCM    - Load EXECs to all DCM nodes.
     XPM    - Load EXECs to all XPM nodes.
     ALL    - Load EXECs to all PM and XPM nodes.
  Parms: <PM_TYPE> {TM,
                    DCM,
                    XPM,
                    ALL}
```

Parameter Definitions

Table 5-280 Parameter Definitions

PARAMETER	VALUE	DEFINITION
PM_TYPE	TM	Resume execs of all TM nodes in the system.
	DCM	Resume execs of all DCM nodes in the system.
	XPM	Resume execs of all XPM nodes in the system.
	ALL	Resume execs of all nodes in the system.

Responses

The following is an example of the response of the RESTOREXECS command. The timing values are for illustration purposes only.

Response - ALL option

```
SWACTCI> RESTOREXECS ALL

(A sample output of SWACT exec timing is displayed. See the
example.)
```

Explanation:

SWACT timing report containing information on handling execs times is displayed.

An additional line containing the Partial Service Interruption time is added in the output of RESTOREXECS as **highlighted**.

System action:

N/A

User action:

SWACT timing report will be generated if the RESTOREXECS command is issued.

Notes

The actual timing values are office dependent.

Examples

```
SWACTCI> RESTOREXECS ALL

WARNING -  A call processing outage will occur on peripherals that
           will receive EXECs.
Do you wish to continue ?
Please confirm ("YES", "Y", "NO", or "N"):
>y

Beginning display of EXEC Information:

Beginning display of SERIES1 exec times...

Node     Nodeno  Exec Status     Start         Complete    Callp Resumed
====     ======  ===========     =====         ========    =============
DCM 0      131     No Delta   17:09:55.651   17:09:55.651   17:09:57.257
DCM 1      132     No Delta   17:09:55.593   17:09:55.593   17:09:57.442
DCM 2      133     No Delta   17:09:55.664   17:09:55.664   17:09:57.693
LM 0       134     No Delta   17:09:55.589   17:09:55.590   17:09:57.787
LM 1       135     No Delta   17:09:55.664   17:09:55.665   17:09:57.834
LM 2       136     No Delta   17:09:55.682   17:09:55.682   17:09:57.907
LM 3       137     No Delta   17:09:55.679   17:09:55.679   17:09:57.981
TM8 0      157     No Delta   17:09:55.646   17:09:55.646   17:09:58.932
MTM 0      158     No Delta   17:09:55.591   17:09:55.591   17:09:58.973
TM8 1      159     No Delta   17:09:55.665   17:09:55.666   17:09:59.021
TM8 2      160     No Delta   17:09:55.590   17:09:55.590   17:09:59.084
TM8 3      161     No Delta   17:09:55.590   17:09:55.591   17:09:59.116
MTM 1      162     No Delta   17:09:55.591   17:09:55.591   17:09:59.174
MTM 2      163     No Delta   17:09:55.647   17:09:55.647   17:09:59.204
MTM 3      164     No Delta   17:09:55.653   17:09:55.653   17:09:59.243
MTM 4      165     No Delta   17:09:55.666   17:09:55.666   17:09:59.288
MTM 5      166     No Delta   17:09:55.592   17:09:55.592   17:09:59.321
MTM 6      167     No Delta   17:09:55.654   17:09:55.654   17:09:59.360
MTM 7      168     No Delta   17:09:55.654   17:09:55.654   17:09:59.394
T8A 0      169     No Delta   17:09:55.593   17:09:55.593   17:09:59.444
MTM 9      170     No Delta   17:09:55.666   17:09:55.666   17:09:59.481
OAU 0      171     No Delta   17:09:55.592   17:09:55.592   17:09:59.520

Beginning display of SERIES2 exec times...

                 Act  Inact                Active      Inactive
Node     Nodeno Stat Stat    Start      Complete    Complete   Callp Resumed
====     ====== ==== =====   =====      ========    ========   =============
LGC 1      138  Sw   Sw   17:09:55.719 17:09:57.535 17:09:57.555 17:09:58.356
LGC 2      139  Sw   Sw   17:09:55.732 17:09:57.408 17:09:57.428 17:09:58.406
LTC 0      140  Sw   Sw   17:09:55.718 17:09:57.336 17:09:57.356 17:09:58.531
LGC 0      141  Sw   Sw   17:09:55.721 17:09:57.692 17:09:57.722 17:09:58.610
DTC 0      142  Sw   Sw   17:09:55.716 17:09:57.145 17:09:57.165 17:09:58.719
DTC 1      143  Sw   Sw   17:09:55.710 17:09:57.144 17:09:57.164 17:09:58.784
RCC 0      144  Sw   Sw   17:09:55.852 17:09:57.837 17:09:57.857 17:09:58.881
ESA 1      172  Sw   Nil  17:09:55.796 17:09:56.046 00:00:00.000 00:00:00.000

Display completed.

Warm SWACT Time: 00:00:03.697
Partial Recovery Time: 00:02.263
CC warm SWACT type was: NORESTARTSWACT
```

Alarms

Alarm name: N/A

Conditions required to raise the alarm

N/A

Duration of the alarm

N/A

AR2030mm.aa05

Please refer to the MM section of feature AF6326 for more details.

Directories

Table of New/Modified Directories

Table 5-281 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES

Accessing directory:

To access

To return to CI

Commands

Table of New/Modified Commands

Table 5-282 New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME

Command name:

Command type

Command target

Command availability

Command description

Warning

Command syntax

Parameter Definitions

Table 5-283 Parameter Definitions

PARAMETER	VALUE	DEFINITION

Responses

Response

Explanation:

System action:

User action:

Notes

Examples

Alarms

Alarm name:

Conditions required to raise the alarm

Duration of the alarm

AR2999mm.aa11

Directories

Table of New/Modified Directories

Table 5-284 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
C7LKS_DIR	CHANGED		SUPERNODE	RES
C7RTS_DIR	CHANGED		SUPERNODE	RES
LINKDIR	CHANGED		SUPERNODE	RES

Accessing directory: C7LKS_DIR

The C7LKS_DIR (MAPCI c7lkset level) is a subdirectory of MAPCIDIR.

To access

1. From the CI environment, enter:

> MAPCI;MTC;CCS;CCS7;C7LKSET

MAPCI:

MTC:

CCS:

CCS7:

C7LKSET:

2. In C7LKSET level, post one of the linkset using

> POST C <Linkset>

To return to CI

To return to the CI environment, enter:

>QUIT ALL

Accessing directory: C7RTS_DIR

The C7RTS_DIR (MAPCI c7rteset level) is a subdirectory of MAPCIDIR.

To access

1. From the CI environment, enter:

> MAPCI;MTC;CCS;CCS7;C7RTESET

MAPCI:

MTC:

CCS:

CCS7:

C7RTESET:

2. In C7RTESET level, post one of the routeset using

> POST C <Routeset>

To return to CI

To return to the CI environment, enter:

>QUIT ALL

Accessing directory: LINKDIR

The LINKDIR is a subdirectory of C7TUDIR (C7TU test tools).

To access

From the CI environment, enter:

> C7TU; C7TULINK

C7TU:

type HELP for commands

C7TU LINK:

type HELP for commands

To return to CI

To return to the CI environment, enter:

>QUIT ALL

Commands

Table of New/Modified Commands

Table 5-285 Table of Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
QueryUsr	CHANGED		C7LKS_DIR
QRYFEPC	CHANGED		C7LKS_DIR
QueryPC	CHANGED		C7RTS_DIR
BUILD	CHANGED		LINKDIR
DISPLAY	CHANGED		LINKDIR
MONITOR	CHANGED		LINKDIR
INTERCEPT	CHANGED		LINKDIR
MATCH	CHANGED		LINKDIR
MASK	CHANGED		LINKDIR
DUMP	CHANGED		LINKDIR

For all the commands shown above, they are modified to get and/or display the newly introduced CCITT German PC format in CSP06. It is part of this feature to modify the C7TU test tools and MAPCI to support the German PC format. In the Command Description section for each command, it specifies whether the modifications are to support INPUT, DISPLAY or BOTH operations for the new German PC format.

Command name: QueryUsr

Command type: MENU (MAPCI c7lkset level)

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- DISPLAY

This command is a MAPCI command for displaying the linkset user information (the routeset). In the current implementation, the QueryUsr command displays linkset with four different formats (BASIC, INTL, AUSTRIA and CHINA) in CCITT network. This feature will introduce a new format (GERMAN) and allow the command to display the German PC in the correct format.

Warning

N/A

Command syntax

In MAPCI C7LKSET level, Type:

> QUERYUSR <link_num>

Parameter Definitions

Table 5-286 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<link_num>	0 to maximum number of link on the posted linkset	index of the link on the previously posted linkset

Responses

For CCITT German network, the new PC format will be used for the display.

Notes

N/A

Examples

Request is:

> QueryUsr 0

Response is:

Routeset Name Network Name Point Code

GERRTE1 CHINANET1 CCITT7 German 03 4 05 6

Command name: QryFEPC

Command type: MENU (MAPCI c7lkset level)

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- DISPLAY

This command is one of the MAPCI commands for displaying the Far End information of the previously posted linkset. It is modified to display the new German PC.

Warning

N/A

Command syntax

> QRYFEPC <link_num>

Parameter Definitions

Table 5-287 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<link_num>	0 to maximum number of link on the posted linkset	index of the link on the previously posted linkset

Responses

For CCITT German network, the new PC format will be used for the display.

Notes

N/A

Examples

Request is:

> QryFEPC 0

Response is:

Linkset Name Network Name FEPC

LSNTC12 CHINANET1 CCITT7 GERMAN 12 0 13 4

Command name: QUERYPC

Command type: MENU (MAPCI c7rteset level)

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- DISPLAY

This command is a MAPCI command displaying the Destination Point Code of the previously posted routeset. It also allows the user to post the far end PC of a specified route on the routeset. It is modified to add the German format in the PC display.

Warning

N/A

Command syntax

In MAPCI C7RTESET level:

> QUERYPC DPC

> QUERYPC FEPC <route_num>

Parameter Definitions

Table 5-288 Parameter Definitions

PARAMETER	VALUE	DEFINITION
<route_num>	0 to 5	the index for the route of the posted routeset.
DPC	N/A	Destination Point Code of the routeset
FEPC	N/A	Far End Point Code of the route

Responses

For CCITT German network, the new PC format will be used for the display.

Notes

N/A

Examples

Request is:

>QUERYPC FEPC 0

Response is:

Linkset Name Network Name FEPC

LSNTC12 CHINANET1 CCITT7 GERMAN 12 0 13 4

Request is:

>QUERYPC DPC

Response is:

Routeset Name Network Name DPC

GERRTE1 CHINANET1 CCITT7 GERMAN 03 0 04 5

Command name: BUILD

Command type: NON-MENU

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- BOTH

This command is one of the C7TU test tools, and it allows users to build a CCS7 message. This message can then be inserted on a link by another C7TU SEND command.

In the current implementation, the BUILD command allows the user to build message with four different formats (BASIC, INTL, AUSTRIA and CHINA) in CCITT network. This feature will introduce a new format (GERMAN) and enhances the C7TU tools to build a CCITT German message.

Warning

N/A

Command syntax

> BUILD <m_ind> <net_type> DEFAULT <m_type> <m_body>

> BUILD <m_ind> <net_type> LABEL <ni> <pri> <dpc> <opc> <sls> <m_type> <m_body>

Parameter Definitions

Table 5-289 Parameters and Constants for Build Command

PARAMETER	VALUE	DEFINITION
<m_ind>	0 to 7	Message index
<net_type>	ANSI, CCITT, TTC, NTC,JPN	Network type
<m_type>	msgcode (e.g. RSC)	Message type
<m_body>	Data or PARMS	Message Body
<ni>	natl, natlsp, intl, intlsp	network indicator
<pri>	0 - 3	priority
<dpc>	point code address (depending on the network type)	Destination point code
<opc>	same as above	Original point code
<sls>	Integer (depending on the network type)	SLS
DEFAULT	N/A	default value for the network data of the message
LABEL	N/A	this value allows the user to input the network data of the message

Responses

For CCITT German network, the new PC format will be used for the display.

Notes

The built CCS7 message can be displayed using the C7TU DISPLAY command. It can also be inserted on the link by C7TU SEND command.

Examples

Request is:

> BUILD 0 CCITT DEFAULT RSC PARMS 500

Response is:

Message 0 was built successfully

Request is:

> BUILD 1 ANSI DEFAULT QQ

Response is:

ERROR: INVALID MSG CODE: QQ

Message 1 was not built successfully

Request is:

> BUILD 1 ANSI DEFAULT RSC PARMS 500

Response is:

Message 1 was built successfully

Request is:

>BUILD 2 CCITT LABEL INTL 0 GERMAN 2 3 4 5 GERMAN 3 4 5 6 10 RSC PARMS 500

Response is:

Message 2 was built successfully

Command name: DISPLAY

Command type: NON-MENU

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- DISPLAY

This command is one of the C7TU test tools, and it allows the user to display the previously built CCS7 messages. The DISPLAY command is modified to show the German PC in the correct format.

Warning

N/A

Command syntax

> DISPLAY <message_num>

> DISPLAY ALL

Parameter Definitions

Table 5-290 Parameter Definitions

PARAMETER	VALUE	DEFINITION
ALL	N/A	all messages built previosuly will be displayed
<message_num>	0 to 7 (must be previously defined by BUILD command)	only the index of the message previously built specified will be displayed

Responses

For CCITT German network, the new PC format will be used for display.

Notes

The CCS7 message is built by the BUILD command of C7TU.

Examples

Request is:

> DISPLAY ALL

Response is:

C7TU MESSAGE SIO DPC OPC SLS

num type length ni pr si XXXX XXXX XXXX XXXX XXXX XXXX

0 INR 14 0 2 ISUP --- default routing label ---

Request is:

> DISPLAY 0

Response is:

C7TU MESSAGE SIO DPC OPC SLS

num type length ni pr si arn hvs kvs sig arn hvs kvs sig

0 INR 14 0 2 ISUP 0 2 3 4 5 6 7 8 0

Message bytes:

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

08 00 FD 04 FD FD 25 85 40 50 DE F4 01 03

Command names: MONITOR and INTERCEPT

Command type: NON-MENU

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- INPUT

The MONitor and the INTercept commands are both C7TU test tools, and they allow user to monitor or intercept the incoming or outcoming CCS7 messages. Since they both have the same inputs and modifications, they are group together to avoid duplicate descriptions.

In this feature, both their input and output procedures are modified to get and display the German PC in the correct format.

Warning

N/A

Command syntax

INT and MON both have the same command syntax.

> MON <link_id> <dir> <net_type> LABEL< <ni> <pri> <dpc> <opc> <sls> <m_type> <mbody>

> MON <link_id> <dir> <net_type> ALL <m_type> <mbody>

Parameter Definitions

ALL the parmeters definitions are the same as those specified in the BUILD command (section 7.2.8) except the following

Table 5-291 Parameter Definitions

PARAMETER	VALUE	DEFINITION
ALL	N/A	default values for network data
<link_id>	string	the linkset defined in C7LKSET
<dir>	IN or OUT	Directions

Responses

No Change.

Notes

- The entries generated by the MON command in the C7TU Item table can be displayed by the C7TU STATUS command.
- INT commands must be first in the item list
- MON command can be used alone, but INT command must be followed by a corresponding MON command or else it will not work.

Examples

Request is:

> MON ALL IN ANSI ALL ISUP DATA

Response is

MON match entry setup successfully

Request is:

> MON lsntc 0 IN CCITT LABEL CCITT INTL 0 GERMAN 0 1 2 4 GERMAN 0 1 2 3 0 ISUP DATA

Response is

MON match entry setup successfully

Command name: MASK, DUMP and MATCH

Command type: NON-MENU

Command target: SUPERNODE

Command availability:

This command is resident on the switch.

Command description

- DISPLAY

The C7TU MASK and MATCH commands allow the user to change the MASK and MATCH arrays of an item in the C7TU Table. These arrays generated by the MON and INT commands are used to perform different debugging actions. The DUMP command is used to display the components of the STATUS items. In this feature, German PC format is added for displaying the PC information of the above commands.

Warning

N/A

Command syntax

> MASK <item_no> <start> <data>

> MATCH <item_no> <start> <data>

> DUMP <item_no> [<item_no>]

For Dump command, the second <item_no> allows us to display a range of items (from the first <item_no> to the second <item_no>). If the second parameter is not input, it will only display the item specified by the first one.

Parameter Definitions

Table 5-292 Parameters for MASK and MATCH Commands

PARAMETER	VALUE	DEFINITION
<item_no>	0 - 7	Entry number for the C7TU Item table (MON or INT command).
<start_byte>	0 - 15	starting byte of the Change
<data>	multiple bytes of data	Data to be placed in the array. Each byte of data must be seperated by a space

Responses

For CCITT German network, the new PC format will be used for the display.

Notes

The MATCH and MASK entries generated by the MON command can be displayed by the C7TU STATUS command.

Examples

Request is:

> MASK 0 4 00

Response is

C7TU MON SIO DPC OPC SLS TYPE
NUM DIR NET NI PR SI ARN HVS KVS SIG ARN HVS KVS SIG

0 IN CCITT ALL XX ISUP 3 0 0 0 0 0 0 2 XX

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Match: 00 04 00 00 05 00 00 00 00 00 00 03 00 00 00 00
Mask: 00 FF 00 00 0F 00 00 00 00 00 00 00 00 00 00 00

C7TU MON SIO DPC OPC SLS TYPE
NUM DIR NET NI PR SI ARN HVS KVS SIG ARN HVS KVS SIG

0 IN CCITT ALL XX XXX 3 0 0 0 0 0 0 2 XX

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Match: 00 04 00 00 05 00 00 00 00 00 00 03 00 00 00 00
Mask: 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Request is:

> MATCH 0 5 11 01

Response is

C7TU MON SIO DPC OPC SLS TYPE
NUM DIR NET NI PR SI ARN HVS KVS SIG ARN HVS KVS SIG

0 IN CCITT ALL XX ISUP 3 0 0 0 0 0 0 2 XX

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Match: 00 04 00 00 05 00 00 00 00 00 00 03 00 00 00 00
Mask: 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00

C7TU MON SIO DPC OPC SLS TYPE
NUM DIR NET NI PR SI ARN HVS KVS SIG ARN HVS KVS SIG

0 IN CCITT ALL XX XXX 3 0 0 0 0 0 0 2 XX

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Match: 00 04 00 00 00 00 00 00 00 00 00 03 00 00 00 00
Mask: 00 FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Request is:

> DUMP 1

Response is:

NUMBER OF VALID MATCH ENTRIES = 2

C7TU MON SIO DPC OPC SLS TYPE
NUM DIR NET NI PR SI ZONE NETW SIGP ZONE NETW SIGP

1 IN CCITT INTL 0 ISUP 0 0 0 0 2 0 9 XXX

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Match: 00 04 10 00 05 00 00 04 90 00 00 00 00 00 00 00

Mask: 00 FF 00 00 FF FF FF FF FF 00 00 00 00 00 00 00

Alarms

Alarm name:

Not Applicable

OP0605mm.aa08

Directories

Table of New/Modified Directories

Table 5-293 New/Modified Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES/ NONRES
SDMPMDIR	CHANGED		SUPERNODE	RES

Accessing directory: SDMPMDIR

To access

mapci;mtc;pm;post sdm 0

To return to CI

quit all

MAPCI Display

Figure 5-120 SDM MAPCI Screen example

```
  CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
   .       .       .       .    1SDM      .       .        .      .       .

SDM                                  SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                    0       0      16       0       1       0
 2 Post_         SDM                   0       0       0       0       1       0
 3 ListSet
 4             SDM 0 ISTb
 5 Trnsl
 6             >querypm
 7 Bsy         SDM 0 ISTb
 8 RTS         CM side IP Address:   47.35.2.35 (Via EIU 0)
 9 OffL
10             Location:
11 Disp_        Site Flr RPos  Bay_id   Shf  Description    Slot     EqPEC
12 Next         HOST  01  Z02                SDM 0
13
14 QueryPM
15 Locate
16
17
18
  USERID
Time  17:03  >
```

Figure 5-121 SDM MAPCI Screen layout

```
  CM      MS     IOD     Net      PM     CCS     Lns     Trks    Ext     APPL
   .       .       .       .    1SDM      .       .        .      .       .

SDM                                  SysB    ManB    OffL    CBsy    ISTb    InSv
 0 Quit          PM                    0       0      16       0       1       0
 2 Post_         SDM                   0       0       0       0       1       0
 3 ListSet
 4             SDM 0 stat (NA) Links_OOS: n /optional text area .............
 5 Trnsl
 6             <command response area starts here
 7 Bsy
 8 RTS
 9 OffL
10
11 Disp_
12 Next
13
14 QueryPM
15 Locate
16
17
18
  USERID
Time  17:03  >
```

Where:

- (NA) - appears if there is no ip route available to handle the CM to SDM messaging. This is usually because the lim or the EIU is not in_service.
- “Links_OOS: n” only appears if the SDM is connected via DS512.

- /optional text area ..... is one of the following:
  - — <blank>
  - — `/not responding`
  - — `/PMReset Reboot in progress`
  - — `/PMReset Halt in progress`
  - — `/maintenance command in progress`
  - — `/state alignment in progress`
  - — `/SDM is not receiving CM msgs`
  - — `/communication service not available` (EIU connected only)

Commands

Table 5-294 Table of New/Modified Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
querypm	changed		SDMPMDIR
trnsl	new		SDMPMDIR
locate	new		SDMPMDIR

Command name: querypm

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to query:

- the state of the SDM
- the location as defined in table EXNDINV and SDMINV

- the SDM IP address (CM side)
- the EIU serving this SDM (if applicable).
- optionally information retrieved from SDM concerning fault, load, status, or configuration.

Warning

None

Command syntax

```
QueryPM:  Query information about the posted SDM.
Parms: [<Querypm Option> {FLT,
                          LOAD,
                          STATUS,
                          CONFIG}]
```

Parameter Definitions

Table 5-295 Parameter Definitions

PARAMETER	VALUE	DEFINITION
Querypm Option	FLT	fault information from the SDM
	LOADS	information from the SDM concerning which loads are installed
	STATUS	status information from the SDM
	CONFIG	configuration information from the SDM

Responses

Response

The following response is for “querypm” without options.

```
>querypm
SDM  0  ISTb
CM side IP Address: 47.35.2.35 (Via EIU 0)

Location:
 Site Flr RPos  Bay_id   Shf  Description    Slot     EqPEC
 HOST  01  Z02                SDM 0

>querypm
SDM  0  ISTb       Links_OOS: 2
CM side IP Address: 47.35.2.35

Config: FT   CabPEC: NT0X02BC
Location:
```

```
Site Flr RPos  Bay_id   Shf  Description    Slot     EqPEC
HOST  01  Z02  CSDM  2   16  SDM 0                   RX50DA
```

Notes:

- EIU displayed for the EIU connected SDM only.
- The Bay_id, Shf, and EqPEC will always be blank for the EIU connected SDM.
- The Slot will always be blank.

Explanation:

The first line has the same content as the status line on a normal formatted MAPCI screen.

The second line contains the IP address of the CM side of SDM. If the SDM is connected via an EIU, then the EIU used to route ip messages to this subnet is displayed.

The location information is from the table where SDM is defined.
For the EXNDINV table the mapping is as follows:

querypm	**EXNDINV**
Site	ENSITE
Flr	ENLOCN
RPos	
Bay_id	
Shf	
Description	always “SDM 0”
Slot	
EqPEC	

For the SDMINV table the mapping is as follows:(subject to change see OP0601DS)

querypm	**SDMINV**
Site	always “HOST”
Flr	FLOOR
RPos	ROW
	POSITION

querypm	SDMINV
Bay_id	CABTYPE
Shf	SHELPOS
Description	always “SDM 0”
Slot	
EqPEC	SHELFPEC

Fields which are not in the above tables are blank.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, or status options

```
>querypm flt
<multiple lines of text from the SDM>
SDM 0 QueryPM completed.
```

Explanation:

See the applicable SDM side node maintenance feature for more information on this format

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, or status options

```
>querypm flt
 SDM 0 Command ended
no communication route to SDM
```

Explanation:

There is no communication route to send the request to the SDM.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, or status options

```
>querypm flt
 SDM 0 Command ended
command timed out
```

Explanation:

The CM timed out before receiving a command complete message from the SDM.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Command ended
no acknowledgment from SDM
```

Explanation:

The SDM did not acknowledge the querypm command from the CM.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Error: invalid state
SDM is unequipped
```

Explanation:

The querypm command with options cannot be used when the SDM is in the OffL state.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Error: invalid state
SDM is OffL
```

Explanation:

The querypm command with options cannot be used when the SDM is in the OffL state.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Command ended
communication service not available
```

Explanation:

The node maintenance process was unable to obtain a UDP endpoint to send messages to the SDM.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Command ended
No SDM C-side mts address.
```

Explanation:

The node maintenance process was unable to obtain a CM side MTS endpoint to send messages to the SDM.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Command ended
No SDM P-side mts address.
```

Explanation:

The node maintenance process was unable to obtain a SDM side MTS endpoint to send messages to the SDM.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, status options

```
>querypm flt
 SDM 0 Command ended
SDM is not responding
```

Explanation:

The node maintenance process was unable to send messages to the SDM because the SDM is currently not responding.

System action:

None

User action:

None

Response

The following response is for “querypm” with any of the flt, loads, config, or status options

```
>querypm flt
 SDM 0 Command ended
maximum number of querypm users exceeded
```

Explanation:

The maximum number of simultaneous SDM querypm users has been exceeded.

System action:

None

User action:

Try again later.

Response

The following response is for “querypm” with the flt option.

```
>querypm flt
  x c-side communication links out of service
< information from the SDM >
```

Explanation:

There are currently x DS512 links out of service to the SDM.

System action:

None

User action:

None

Response

The following response is for “querypm” with the flt option.

```
>querypm flt
  SDM is a minor babbler
< information from the SDM >
```

Explanation:

The MS has indicated that the SDM is a minor babbler. The state of the SDM on the CM will be set to ISTb when the SDM local state is InSv.

System action:

None

User action:

None

Response

The following response is for “querypm” with the flt option.

```
>querypm flt
  SDM is a major babbler
< information from the SDM >
```

Explanation:

The MS has indicated that the SDM is a major babbler. The state of the SDM on the CM will be set to SysB when the SDM local state is InSv or ISTb.

System action:

None

User action:

None

Response

The following response is for “querypm” with the flt option.

```
>querypm flt
  SDM is a critical babbler
< information from the SDM >
```

Explanation:

The MS has indicated that the SDM is a critical babbler. The state of the SDM on the CM will be set to SysB when the SDM local state is InSv. All links will be closed.

System action:

None

User action:

None

Notes

None

Examples

See above

Command name: trnsl

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command displays the link address information for the links between the MS and SDM.

Warning

Command syntax

```
Trnsl:  Displays link information.
```

Parameter Definitions

Table 5-296 Parameter Definitions

PARAMETER	VALUE	DEFINITION
none		

Responses

Response

```
SDM 0 DOMAIN 0 PORT 0 (MS 0:20:0) OK    ,P MsgCnd:MTC_Open
SDM 0 DOMAIN 0 PORT 1 (MS 1:20:0) OK  ,C,P MsgCnd:Closed
SDM 0 DOMAIN 1 PORT 0 (MS 0:20:1) OK    ,P MsgCnd:MTC_Open
SDM 0 DOMAIN 1 PORT 1 (MS 1:20:1) ManB,C,P MsgCnd:Closed
```

Explanation:

Both ends of the DS512 connection between the SDM and the MS are described. The SDM is as labelled in the output and the MS side is “MS_NUMBER”:“MS_card”:“MSPORT”. The state of the link follows the description.

System action:

none

User action:

none

Notes

When only 2 links are defined then the output has displays 2 links.

Examples

Response

```
SDM 0 is connected via EIU 1.
```

Explanation:

This SDM is connected via an EIU.

System action:

none

User action:

none

Notes

Examples

Command name: locate

Command type

NON-MENU

Command target

SUPERNODE

Command availability

RES

Command description

This command is used to display location information concerning SDM hardware modules.

Warning

None

Command syntax

```
Locate:  Display hardware module location information
```

Parameter Definitions

Table 5-297 PMRESET Command Parameters

PARAMETER	VALUE	DEFINITION
None		

Responses

Response

```
<The normal reponse from locate is documented in feature SD0705>
```

Explanation:

System action:

User action:

Response

The following response is for “locate” command.

```
>locate
<multiple lines of text from the SDM>
SDM 0 QueryPM completed.
```

Explanation:

See the applicable SDM side node maintenance feature for more information on this format

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
no communication route to SDM
```

Explanation:

There is no communication route to send the request to the SDM.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
command timed out
```

Explanation:

The CM timed out before receiving a command complete message from the SDM.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
no acknowledgment from SDM
```

Explanation:

The SDM did not acknowledge the locate command from the CM.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Error: invalid state
SDM is unequipped
```

Explanation:

The locate command cannot be used when the SDM is in the OffL state.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Error: invalid state
SDM is OffL
```

Explanation:

The locate command cannot be used when the SDM is in the OffL state.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
communication service not available
```

Explanation:

The node maintenance process was unable to obtain a UDP endpoint to send messages to the SDM.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
No SDM C-side mts address.
```

Explanation:

The node maintenance process was unable to obtain a CM side MTS endpoint to send messages to the SDM.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
No SDM P-side mts address.
```

Explanation:

The node maintenance process was unable to obtain a SDM side MTS endpoint to send messages to the SDM.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
SDM is not responding
```

Explanation:

The node maintenance process was unable to send messages to the SDM because the SDM is currently not responding.

System action:

None

User action:

None

Response

The following response is for “locate” command.

```
>locate
 SDM 0 Command ended
maximum number of querypm users exceeded
```

Explanation:

The maximum number of simultaneous SDM querypm (and locate) users has been exceeded.

System action:

None

User action:

Try again later.

Response

```
No SDM Posted
```

Explanation:

No SDM was posted so no action can be taken.

System action:

Display message.

User action:

Post SDM 0.

Notes

Examples

Alarms

Alarm name:

Not Applicable

Conditions required to raise the alarm

Duration of the alarm

XL0011mm.aa11

Directories

The LCM directory, LCMDIR, will be modified by this feature.

Table of New/Modified Directories

Table 5-298 List of Affected Directories

DIRECTORY NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	TARGET	RES / NONRES
LCMDIR	CHANGED	-	SUPERNODE	RES

Accessing directory: LCMDIR

To access

MAPCI; MTC; PM; POST LCM <post-set-specifier>

To return to CI

QUIT ALL

Commands

The following commands are affected by this feature:

LOADPM, BSY, RTS, QUERYPM, TST.

The new MAP level command introduced by this feature is:

SWLD.

Table of Commands affected by the Feature

Table 5-299 List of Affected Commands

COMMAND NAME	NEW, CHANGED OR DELETED	NEW NAME (if renamed)	DIRECTORY NAME
LOADPM	CHANGED	-	LCMDIR
BSY	CHANGED	-	LCMDIR
RTS	CHANGED	-	LCMDIR
SWLD	NEW	-	LCMDIR
QUERYPM	CHANGED	-	LCMDIR
TST	CHANGED	-	LCMDIR
RTS	CHANGED	-	LCMDIR

Command name: LOADPM

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

A RLCM-EDC unit is equipped with two banks of Flash ROM of 4MByte capacity. Each bank is capable of containing a complete RLCM-EDC load. The bank that is being used by the processor at any time is called the active bank and is said to be in the active mode. The other bank is referred to as the standby bank and is said to be in the standby mode. “Figure 5-122 Representation of the Flash ROM banks in a RLCM-EDC” on page 744 illustrates this.

The use of Flash ROM banks leads to the following impact on loading the RLCM-EDC:

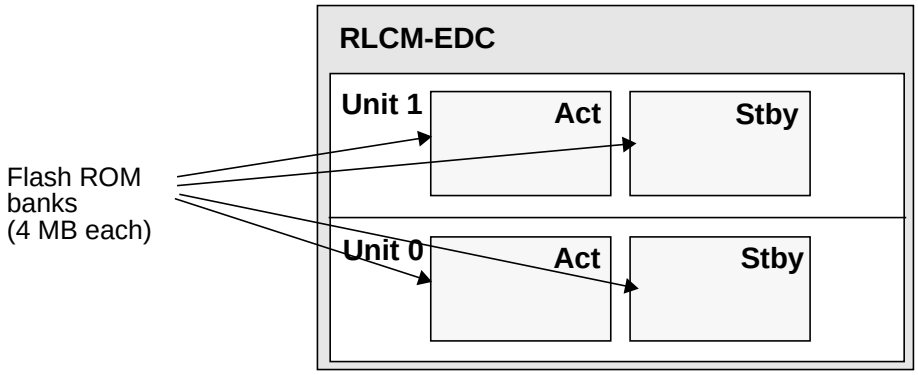


Figure 5-122 Representation of the Flash ROM banks in a RLCM-EDC

- **In-service loading capability:** The RLCM-EDC units have the ability to be loaded while in an INSV state. This implies that normal call-processing functions of a unit can continue while a new load is being downloaded into a unit.
- **Faster recovery:** The RLCM-EDC has the potential of faster recovery from catastrophic failures. This is mainly due to the availability of a backup load in each unit.
- **Flexible loading strategies:** The RLCM-EDC provides flexible loading options and offers the craftsperson complete control of the loads in each Flash ROM bank.

The LOADPM command is used to send a load to the Flash ROM bank in a RLCM-EDC. This command can be performed on an INSV or OOS RLCM-EDC unit. The load sent to a unit is **always** downloaded into the bank that is in standby mode at that time. During an in-service download, the processor of a unit continues its call processing functions executing the load in the active bank. Once the download is complete the new load in the standby bank remains dormant until activated manually or by the system. The system initiated activation of a standby bank will occur **only** during attempts to recover from catastrophic[1] failures in the RLCM-EDC. Manual activation of the load in the standby bank requires the craftsperson to issue a command at the MAP. The RTS command with the SWLD (SWitch LoaD) option is used when activating the load in an OOS unit. The new SWLD (SWitch LoaD) command is used when activating the load in an INSV unit. For more

[1]Examples of catastrophic failures; a severed Cside messaging link due to lightning strike or a checksum failure on the active Flash ROM bank of the RLCM-EDC processor board. Such situations typically cause the affected unit to go SysB. Recovery actions, that vary depending on the type of failure, are initiated.

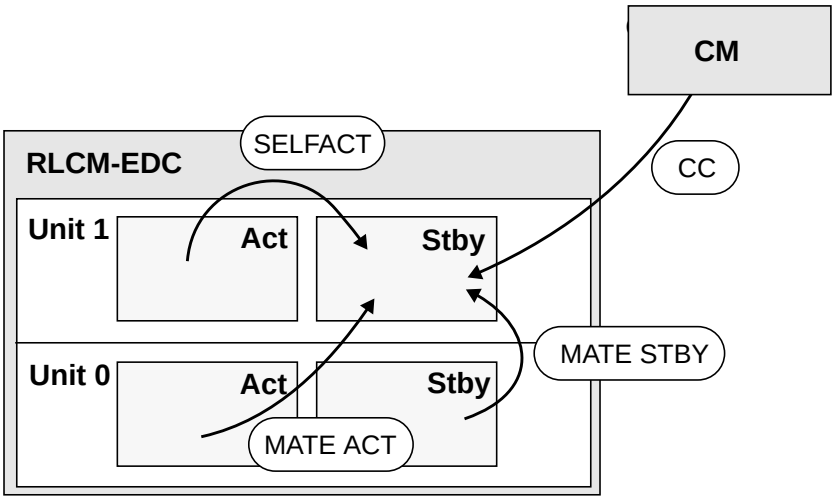


Figure 5-123 Sources available to load the standby bank of a RLCM-EDC unit

information on the RTS and SWLD commands, please refer to " Command name: RTS" on page 758 and " Command name: SWLD" on page 762 respectively. During activation of the new load the processor of the RLCM-EDC unit switches the active bank to a standby state and starts executing the load in the newly active (previously standby) bank. The RLCM-EDC unit must be taken out-of-service to activate the load in the standby bank.

Once a unit of the RLCM-EDC has been loaded and the load has been activated, the standby bank will contain the old (previously active) load until the craftsperson chooses to manually load the standby bank with another load. This feature is useful when the telephone company is upgrading the RLCM-EDCs to a new release load. During the upgrade the telephone company may choose to retain the old loads until they are satisfied with the quality of the new load. The craftsperson can, at any time, load the inactive bank with the same load as the active bank. This will provide redundancy of loads in the RLCM-EDC and can be beneficial in the event of catastrophic load failures of the active bank.

New options are added to the LOADPM command to make use of the sophisticated architecture of the LCM processor card. In order to simplify the number of outcomes resulting from a LOADPM command (based on the combinations of its options) the SOURCE option to the LOADPM command is changed from an optional to a non-optional parameter. This makes the command much simpler to understand and use, reducing the likelihood of a mistake on part of the craftsperson.

The destination of the load in a RLCM-EDC unit is always the standby bank. However, multiple sources for the load are available as shown in “Figure 5-123 Sources available to load the standby bank of a RLCM-EDC unit” on page 745. New options are added to the LOADPM command to make use of the different sources. The bubbles beside the arrows in the figure indicate the option to be used with the LOADPM command for each source. The options give the craftsperson full control of the source while loading a unit. The ACT (ACTive) and STBY (STandBY) options are suboptions to the existing MATE option and allow the craftsperson to specify which bank of the mate unit is to be used for loading. The SELFACT (SELF ACTive) option is used to copy the load from the active bank over to the standby bank of a unit. The new options ACT, STBY and SELFACT apply only to RLCM-EDC nodes. The existing (64K/256K) LCMs ignore these options. The tree diagram illustrating the parsing of these options is shown in “Figure 5-124 Parsing LOADPM command options” on page 747.

The LOADPM command for the RLCM-EDC takes longer to complete compared to existing LCMs. Factors for this increase in time include INSV (background) loading and the size of the RLCM-EDC load. The use of Flash ROMs makes it necessary for the ROMs to be erased before the load records can be written into the ROMs. The process of erasing the ROMs also adds to the time required to load the RLCM-EDC.

Warning

None

Command syntax

The command modifications apply only to RLCM-EDC nodes. The bold letters shown in the command syntax indicate the modifications made. The non-bold letters are part of the existing command syntax. Only the modifications will be described here.

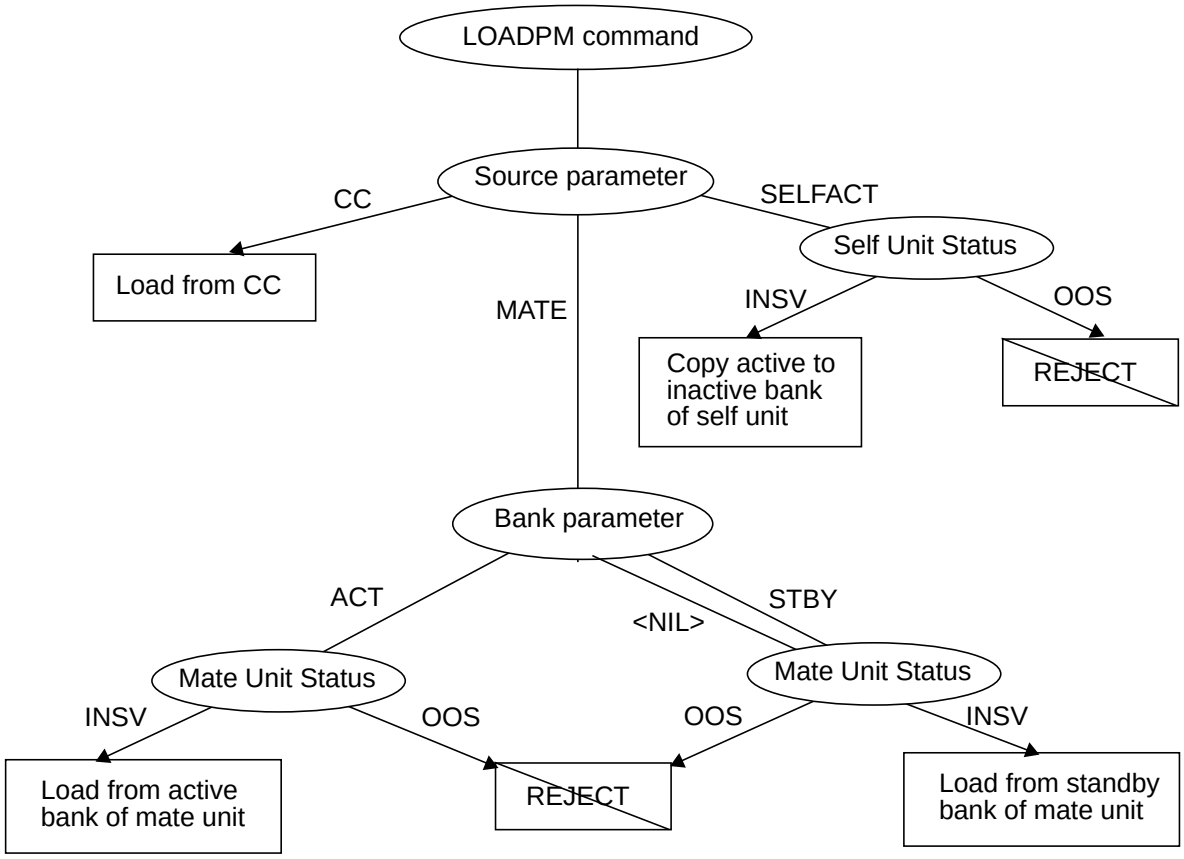


Figure 5-124 Parsing LOADPM command options

```
LOADPM   <DEVICE>      {UNIT   <UNIT-NO>     {0 TO 1},
                       PM}
         <SOURCE>      {CC     [<FILE>       STRING],
                       MATE    [<BANK>       {ACT, STBY}],
                       SELFACT}
         [<NOCHECK>    {NOCHECK}]
         [<NOWAIT>     {NOWAIT}]
         [<ALL>        {ALL    <RFILE>       STRING}]
```

Command overview

The following points must be kept in mind while using the LOADPM command for RLCM-EDC nodes:

- The loadname is obtained from table LCMINV when loading from CC. This is overridden only when the name is provided on the command line.
- When the source specified is MATE, the load is obtained from either the active bank of the mate or the standby bank of the mate, depending upon the suboption (ACT or STBY).
- The LOADPM command with MATE option defaults to the STBY bank if no suboption is entered.
- When the source specified is SELFACT (SeLF ACTive) which refers to the active bank of the unit being loaded, the contents of the active bank are copied over to the standby bank of that unit.
- The unit must be in-service in order to use the SELFACT option.
- The NOCHECK option is ignored when used on a RLCM-EDC.
- The PM option can only be used if both units are in the same state i.e. both units must be either in service (INSV, ISTB) or out of service (MANB). If the node being loaded must have the two units in different states (one unit in service and the other out of service) then the user must use the UNIT option to load each unit separately.
- When one unit of the RLCM-EDC is performing a MATE load, the other unit cannot perform any loading actions.

Parameter Definitions

Table 5-300 List of Affected Parameters

PARAMETER	VALUE	DEFINITION
BANK	ACT, STBY	The BANK parameter is optional and is used only by RLCM-EDC nodes. When used with the MATE option, this parameter specifies the bank of the mate to use as the source for the load. When the MATE option is used without specifying the BANK parameter, the command defaults to STBY. This means the standby bank of the mate will be used as the source for the load. This parameter is ignored by all other LCM variants using the 64K/256K processors.
SOURCE	CC, MATE, SELFACT	The SOURCE parameter is non-optional. Functionality of the command with a source value of CC remains unchanged. A source value of MATE will function as described in the row above. SELFACT is an abbreviation of SeLF ACTive. When the source option is set to SELFACT, the active bank of the unit being loaded is the source for the load. In other words the contents of the active bank are copied over to the standby bank of the unit being loaded.

Responses

The new responses are displayed only when the command is performed on a RLCM-EDC. All existing responses will be retained and apply only to existing LCMs (64K and 256K). Existing responses that also apply to RLCM-EDCs are not shown here.

Response

LCM ZLCM 02 0 Unit 0 LoadPM Passed

Command:

LOADPM UNIT 0 CC

Explanation:

This is the response observed on the successful completion of a LOADPM command when performed on an in-service or out-of-service unit.

System action:

The LOADPM command loads the RLCM-EDC unit(s). The '**/Loading: nK (x%)**' display appears next to the unit being loaded on the MAP display where n denotes the size of the load in bytes and x denotes the percentage of the load completed.

User action:

None.

Response

LCM ZLCM 02 0 Unit 0 LoadPM Passed

Command:

LOADPM UNIT 0 SELFACT

Explanation:

This is the response observed on the successful completion of a LOADPM command when performed on an in-service or out-of-service unit.

System action:

The LOADPM command loads the RLCM-EDC unit(s). The '**/Copying Load**' display appears next to the unit being loaded on the MAP display.

User action:

None.

Response

LCM ZLCM 02 0 Unit 0 LoadPM Passed

Command:

LOADPM UNIT 0 MATE STBY

LOADPM UNIT 0 MATE

Explanation:

This is the response observed on the successful completion of a LOADPM command when performed on an in-service or out-of-service unit.

System action:

The LOADPM command loads the RLCM-EDC unit(s). The '**/Loading**' display appears next to the unit being loaded on the MAP display.

User action:

None.

Response

```
LCM ZLCM 02 0 Unit 1  Request Invalid
                      Unit must be InSv/ISTb for SELFACT option
```

Command

```
LOADPM UNIT 1 SELFACT
```

Explanation:

This response is observed for a LOADPM command with the SELFACT option when performed on a unit that is OOS.

System action:

The LOADPM command is rejected.

User action:

The user can perform an RTS to bring the unit back into service before trying the LOADPM command with SELFACT option again.

Response

```
LCM ZLCM 02 0 Unit 1  Request Invalid
                      Mate unit must be InSv/ISTb for mate load
```

Command

LOADPM UNIT 1 MATE ACT

LOADPM UNIT 1 MATE STBY

Explanation:

This response is observed for a LOADPM command with the MATE option (ACT or STBY) when performed on a unit that has a mate unit OOS.

System action:

The LOADPM command is rejected.

User action:

The user can perform an RTS to bring the mate unit back into service before trying the LOADPM command with MATE option again.

Response

This operation will be executed on 2 LCMs
Please confirm (“YES”, “Y”, “NO”, or “N”):

>Y

LCM HOST 02 0 Unit 1 Load request submitted
LCM ZLCM 02 0 Unit 1 Load request submitted
LCM HOST 02 0 Unit 1 LoadPM Passed
LCM ZLCM 02 0 Unit 1   LoadPM Passed

Summary:
2 passed

Command

LOADPM UNIT 1 CC ALL

Explanation:

This response is observed for a LOADPM command with the CC option when performed on multiple LCMs (2 in the above case).

System action:

The LCMs in the posted set are loaded simultaneously.

User action:

None.

Response

LCM ZLCM 02 0 Unit 1 Request Invalid
Both units must be in the same state

Command

LOADPM PM CC

Explanation:

This response is observed for a LOADPM command with the PM option when performed RLCM-EDC node which has two units with different statuses (INSV/OOS).

System action:

The LOADPM command is rejected.

User action:

The user can perform use the LOADPM command with the UNIT option to load the units separately.

Response

SELFACT option invalid. See HELP LOADPM

Command

LOADPM UNIT x SELFACT

LOADPM PM SELFACT

Explanation:

This response is observed for a LOADPM command with the SELFACT option when performed on a SMEM LCM (64K/256K).

System action:

The LOADPM command is rejected.

User action:

Retry the command without the SELFACT option. Enter HELP LOADPM to get more information about the LOADPM command.

Notes

It should be noted that RLCM-EDCs (4M processor) take longer to load compared to existing LCMs (64K, 256K). Therefore, loading a set of ‘n’ 64K/256K LCMs and ‘m’ 4M LCMs takes longer than it does to load only ‘n’ 64K/256K LCMs.

Examples

Refer to the examples above.

Command name: BSY

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The BSY command has a new option, SMEM, which collectively refers to the LCMs using Smaller MEMory (64K/256K) processors. The SMEM option is valid only when used with the ALL option as in,

```
BSY UNIT 0 ALL SMEM
```

The SMEM option is only intended to be used prior to loading a set of posted LCMs. This command option enables the craftsperson to take advantage of the INSV loading feature of the RLCM-EDC, when loading multiple LCMs, by impacting only smaller memory LCMs. A load operation on multiple existing LCMs requires that the units being loaded be in the MANB state. The BSY command is used with the ALL option to set the LCM units in the MANB state. However, using the existing BSY ALL command places all the posted LCM units, including RLCM-EDC units (if any), in the MANB state. RLCM-

EDC units do not need to be busied for loading. The SMEM option when used with the ALL option as shown above, ensures that only non-RLCM-EDC units out of the posted set are placed in the MANB state. The craftsperson can issue the command shown above and subsequently proceed to load the posted set, which can include both existing LCMs and RLCM-EDCs. The SMEM option is meaningless when used in an office that does not have RLCM-EDCs.

The BSY ALL command without the SMEM option retains the existing functionality. The response to the BSY ALL command (without SMEM) includes a prompt reminding the craftsperson to use the SMEM option prior to loading multiple LCMs.

Warning

The BSY command takes the specified unit/pm out of service. It should be used with caution.

Command syntax

The command modifications apply only to RLCM-EDC nodes. The bold letters shown in the above command syntax indicate the modifications made. The non-bold letters are part of the existing command syntax. Only the modifications are described here.

```
BSY    <DEVICE>      {UNIT   <UNIT-NO>      {0 TO 1},
                     PM,
                     LINK    <PSIDE_LINK> {0 TO 3},
                     DRWR  <DRWR_NO>   {0 TO 19}}
       [<FORCE>      {FORCE}]
       [<NOWAIT>     {NOWAIT}]
       [<ALL>        {ALL}]
                     [<SMEM>       {SMEM}]
```

Parameter Definitions

Table 5-301 Parameter Definitions

PARAMETER	VALUE	DEFINITION
SMEM	SMEM	This option is intended for use with the ALL option when preparing to load a set of LCMs (64K, 256K, 4M). The command busies the 64K and 256K LCMs but leaves the 4M LCMs in service.

Responses

The new responses are displayed only when the command is performed on a RLCM-EDC. All existing responses are retained and apply only to existing LCMs (64K and 256K). Existing responses that also apply to RLCM-EDCs are not shown here.

Response

```
This operation will be performed on 2LCMs.
Please confirm ("YES", "Y", "NO", or "N"):

>Y

LCM HOST 02 0 Unit 1  Calls On Unit May Be Affected
Please confirm (“YES”, “Y”, “NO”, or “N”):

>Y

LCM ZLCM 02 0 Unit 1  Request not submitted: Not an SMEM LCM
LCM HOST 02 0 Unit 1  Bsy Passed

Summary:
1  passed
1  not submitted
```

Command

```
BSY UNIT 1 ALL SMEM
```

Explanation:

This response is observed when the BSY command is used with the ALL and SMEM options. The number of posted LCMs is 2 in the above example. Out of the set, 1 LCM is either 64K or 256K LCMs. The remaining 1 LCM is a 4M RLCM-EDC. The command only busies out the LCM.

System action:

The system awaits confirmation from the craftsperson. Upon receipt of confirmation the system busies out all the LCMs (64K, 256K only) in the posted set.

User action:

User can confirm the prompt to proceed with the command or choose to abort the command.

Response

```
This will cause ALL LCMs in the posted set to be busied.
The SMEM option of the BSY command should be
    used if loading the 4M LCMs in-service is desired.
This operation will be performed on 4 LCMs.
Please confirm ("YES", "Y", "NO", or "N"):
```

Command

```
BSY UNIT 1 ALL
```

Explanation:

This response is observed when the BSY command is used with the ALL option but without the SMEM option.

System action:

The system awaits confirmation from the craftsperson. Upon receipt of confirmation the system busies all the LCMs (64K, 256K only) in the posted set. If a N is entered the command is aborted.

User action:

User can confirm the prompt to proceed with the command or choose to abort the command.

Notes

- The SMEM option is meaningless unless used with the ALL option.
- The SMEM option applies only to the UNIT or PM option of the BSY command.
- The SMEM option does not have any meaning when used in an office that does not have RLCM-EDCs.

Examples

Refer to example shown above.

Command name: RTS

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The RTS command retains all existing functionality. Two new options, SMEM (Smaller MEMory) and SWLD (SWitch LoaD), are added to the RTS command.

The new option SMEM added to the RTS returns to service only the smaller memory (64K/256K) LCMs. The SMEM option is applicable only when the ALL option is used.

The new option SWLD is valid only on a MANB unit. This option switches the loads of a unit that is already out of service and returns the unit back into service. After completion of the command the unit will be INSV and executing the new load. This option is ignored by existing LCMs (64K/256K). In other words, a 64K/256K LCM will simply perform a regular RTS when a RTS with SWLD option is entered.

During the process of converting an existing RLCM to a RLCM-EDC, the RTS command is unsuccessful if both units have not been upgraded. For the RTS command to bring the RLCM-EDC into service (INSV), the processors in both units must be of the new type and must contain valid RLCM-EDC loads.

The RTS command rejects any attempt to return to service a unit which has an invalid load in the active and standby banks. A new response is generated when attempting to RTS a RLCM-EDC unit which has an invalid load in the active bank. When this response is observed the craftsperson can try the RTS command with the SWLD option. If the same response is obtained for the SWLD option too, the craftsperson will have to load the unit with a valid load using the LOADPM command. After the loading is complete, the unit can be returned to service with the RTS SWLD command.

Warning

NOT APPLICABLE

Command syntax

The command modifications apply only to RLCM-EDC nodes. The bold letters shown in the above command syntax indicate the modifications made. The non-bold letters are part of the existing command syntax. Only the modifications are described here.

```
RTS    <DEVICE>      {UNIT   <UNIT-NO>      {0 TO 1},
                     PM,
                     LINK    <PSIDE_LINK>  {0 TO 3},
                     DRWR    <DRWR_NO>     {0 TO 23}}
       [<SWLD>       {SWLD}]
       [<FORCE>      {FORCE}]
       [<NOWAIT>     {NOWAIT}]
       [<ALL>        {ALL}]
                     [<SMEM>       {SMEM}]
```

Parameter Definitions

Table 5-302 Parameter Definitions

PARAMETER	VALUE	DEFINITION
SMEM	SMEM	This option is intended for use with the ALL option when preparing to broadcast load a set of LCMs (64K, 256K, 4M). The command returns to service the 64K and 256K LCMs but leave the 4M LCMs as they were.

Responses

The new responses are displayed only when the command is performed on a RLCM-EDC. All existing responses are retained and apply only to existing LCMs (64K and 256K). Existing responses that also apply to RLCM-EDCs are not shown here.

Response

```
This operation will be performed on 2LCMs.
Please confirm ("YES", "Y", "NO", or "N"):

>Y

LCM HOST 02 0 Unit 1  Calls On Unit May Be Affected
Please confirm (“YES”, “Y”, “NO”, or “N”):

>Y

LCM ZLCM 02 0 Unit 1  Request not submitted: Not an SMEM LCM
LCM HOST 02 0 Unit 1 RTS Passed

Summary:
1  passed
1  not submitted
```

Command

```
RTS UNIT 1 ALL SMEM
```

Explanation:

This response is observed when the RTS command is used with the ALL and SMEM options. The number of posted LCMs is 2(in this case). Out of the set, 1 LCM is either 64K or 256K LCMs. The remaining 1 LCM is a 4M RLCM-EDC. The command only returns to service the LCM.

System action:

The system awaits confirmation from the craftsperson. Upon receipt of confirmation the system returns to service all the LCMs (64K, 256K only) in the posted set.

User action:

User can confirm the prompt to proceed with the command or choose to abort the command.

Response

```
LCM REDC 1 0 Invalid Active load.
             Use QueryPM to check loads.
```

Command

```
RTS UNIT 1
```

```
RTS UNIT 1 SWLD
```

Explanation:

This response is observed when the RTS command on a unit (with or without SWLD option) that has an invalid load in the active bank.

System action:

The RTS command is rejected.

User action:

If the response was the result of a RTS command without the SWLD option the user can try the RTS command with the SWLD option to bring the unit back into service.

If the response was the result of a RTS command with the SWLD option the user can try the RTS command without the SWLD option to bring the unit back into service.

If the same response is observed for RTS commands with or without the SWLD option the user has no choice but to load the unit with an active load. After the loading is complete, the user can RTS the unit with the SWLD option to successfully bring it back into service.

Notes

- The SMEM option is meaningless unless used with the ALL option.
- The SMEM option applies only to the UNIT or PM option of the RTS command.
- The SMEM option does not have any meaning when used in an office that does not have RLCM-EDCs.

Examples

For examples please refer those shown above.

Command name: SWLD

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The SWLD command is available at the LCM level of the MAP. The SWLD command is displayed on the MAP menu in position number 13. This is displayed only in NTT offices using the ABSL001 PCL. An example of the SWLD command is shown below;

```
SWLD UNIT 0
```

This command will place the LCM in a takeover mode for a short period of time irrespective of the option used. A warning will be displayed and the craftsperson will be prompted to confirm the command.

The SWLD command can be used only on an INSV node. The SWLD command when used with the UNIT option on an INSV unit will place the specified unit in OOS mode and internally switch the active and standby Flash ROM banks. It will then bring the unit back into service while executing the new load in the newly active bank. When used with the PM option the command will perform the above sequence once for each unit. The command will **not** take the LCM node completely OOS under any condition.

The SWLD command cannot be used on a unit or a node in MANB state. In such a case the RTS command is to be used with the SWLD option.

Warning

The SWLD command places the RLCM-EDC in takeover mode for a short duration. The command also activates the load in the standby bank of the RLCM-EDC unit. The command should be used with caution.

Command syntax

```
SWLD  <DEVICE>      {UNIT   <UNIT-NO>     {0 TO 1},
                    PM}
      [<NOWAIT>     {NOWAIT}]
      [<ALL>        {ALL}]
```

Parameter Definitions

Table 5-303 Parameter Definitions

PARAMETER	VALUE	DEFINITION
DEVICE	UNIT, PM	The SWLD command can be used on a unit or the pm as determined by the device option.
NOWAIT	NOWAIT	The SWLD command can be used with the NOWAIT option. This option returns the prompt to the user while continuing to execute the command.
ALL	ALL	This option allows the user to execute the SWLD command on a set of posted RLCM-EDCs.[a]

a. In order to post a set of RLCM-EDCs only, the user must specify each RLCM-EDC with the POST command. For instance, POST LCM REDC 0 0 REDC 1 0 REDC 0 1 posts a set of three RLCM-EDCs

Responses

The new responses are displayed only when the command is performed on a RLCM-EDC. All existing responses are retained and apply only to existing LCMs (64K and 256K). Existing responses that also apply to RLCM-EDCs are not shown here.

Response

```
Existing loads:  Unit 1:  Act: REDC01AA     Stby: REDC02AB
New loads after a successful SWLD will be:
                 Unit 1:  Act: REDC02AB     Stby: REDC01AA

Do you wish to continue?
Please confirm ("YES", "Y", "NO", or "N"):
```

Command

SWLD UNIT 1

Explanation:

This response is observed when the SWLD command is used.

System action:

The system awaits confirmation from the craftsperson. Upon receipt of confirmation the system busies the unit and then returns to service the specified unit by switching the loads in the active and standby banks. The string '/ **Switching Loads**' is displayed next to the unit on the MAP where the LCM is posted.

User action:

User can confirm the prompt to proceed with the command or choose to abort the command.

Response

```
LCM ZLCM 02 0     Unit 0 Request Invalid
                  Unit must be either InSv or ISTb
```

Command

SWLD UNIT 0

Explanation:

This response is observed when the SWLD command is performed on a out-of-service node.

System action:

The system rejects the command.

User action:

The user can RTS the unit into an in-service state and then try the SWLD command. In the alternative the user can use the RTS command with the SWLD option on the unit.

Response

```
LCM ZLCM 02 0      Unit 0 Request Invalid
                   Mate must be either InSvor ISTb
```

Command

SWLD UNIT 0

Explanation:

This response is observed when the SWLD command is performed on unit that has its mate in OOS state.

System action:

The system rejects the command.

User action:

The user can RTS the mate into an in-service state and then try the SWLD command.

Response

```
LCM HOST 00 0 Unit 1  Request Invalid
                      LCM MEMSIZE must be 4M in table LCMINV
```

Command

SWLD UNIT 1

Explanation:

This response is observed when the SWLD command is performed on a existing LCM (64K/256K).

System action:

The system rejects the command.

User action:

None

Notes

- The SWLD command is allowed only on a RLCM-EDC with both units in-service.
- The SWLD command will place the RLCM-EDC in simplex mode.
- The SWLD command will not take the RLCM-EDC completely OOS.

Examples

Please refer to examples shown above.

Sample command sequences for loading RLCM-EDCs

The sequence of commands required to load RLCM-EDC nodes will be different from that required for existing LCMs (with the 64K and 256K memory sizes). The sequence will depend on the datafill in table LCMINV. Some of the possible command sequences are listed below. The list does not cover all possible combinations and is provided only as a guideline.

1. Loading in an office with only RLCM-EDCs:

```
LOADPM PM CC ALL

SWLD PM ALL
```

2. Loading in an office with a mix of LCMs and RLCM-EDCs:

```
BSY UNIT 0 ALL SMEM

LOADPM UNIT 0 CC ALL

RTS UNIT 0 ALL SMEM

SWLD UNIT 0 ALL

BSY UNIT 1 ALL SMEM
```

LOADPM UNIT 1 CC ALL

RTS UNIT 1 ALL SMEM

SWLD UNIT 1 ALL

3. Copying the loads from the active to stand-by bank for RLCM-EDCs:

LOADPM PM SELFACT ALL

Command name: QUERYPM

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The output of the QUERYPM command will be different for a RLCM-EDC as compared to a smaller memory LCM. The command functionality will remain unchanged for smaller memory LCMs (64K/256K).

The QUERYPM command will display information about the posted RLCM-EDC. The output will include the memory sizes (4M) of the RLCM-EDC units. It will also include the names of the loads contained in the active and standby banks of Flash ROM of each unit. The QUERYPM command (without any options) will not output any loadname information for OOS units. In order to get the loadnames from a MANB unit the QUERYPM command can be used with the OOS option. The QUERYPM OOS command is not valid for SYSB units.

The output of the QUERYPM command also indicates corrupt loads (if any) by displaying a “*C*” next to the corrupt loadname. When a load is corrupt the bank has to be overwritten with a ‘good’ load to resolve the corruption.

The QUERYPM command with the CNTRS option displays the values of counters that are specific to the transmission protocol being used between the LCM and the Cside XPM. The QUERYPM CNTRS command when performed on a posted RLCM-EDC displays values of the LAPD (Q.921) counters shown below:

- FrmSendCnt FRM_SEND_CNT
- FrmReSendCnt FRM_RESEND_CNT
- FrmRcvCnt FRM_RCV_CNT
- ErrInvalidFrmSizeCnt FRM_INV_SIZE
- Receipt Unsolicited Response RCV_UNSOL_RSP
- Peer Initiated Reestablishment PEER_INIT_ESTB
- Unsuc. Retransmissions UNSUCC_RETRANS
- Misc. Cside Link Errors MISC_CS_ERRORS
- IUC FrmSendCnt IUC_SEND_CNT
- IUC FrmReSendCnt IUC_RESEND_CNT
- IUC FrmRcvCnt IUC_RCV_CNT
- IUC ErrInvalidFrmSizeCnt IUC_INV_FRM
- IUC Receipt Unsolicited Response IUC_RCV_UNSOL
- IUC Peer Initiated Reestablishment IUC_PEER_INIT
- IUC Unsuc. Retransmissions IUC_UNSUCC_RET
- Misc. IUC Link Errors IUC_MISC_ERRORS

Warning

None

Command syntax

The command modifications apply only to RLCM-EDC nodes. The bold letters shown in the above command syntax indicate the modifications made. The non-bold letters are part of the existing command syntax. Only the modifications are described here.

QUERYPM <OPTION> {FLT,

CNTRS <CLEAR CNTRS> {CLEAR},

DRWR,

OOS}

Parameter Definitions

Table 5-304 Parameter Definitions

PARAMETER	VALUE	DEFINITION
FLT	FLT	This option reports fault reasons when the unit being queried is ISTB or SYSB.
CNTRS	CNTRS	This option queries the values of the LAPD counters from an in-service unit
DRWR	DRWR	This option queries drawer information.
OOS	OOS	This option is valid only for RLCM-EDCs. This option aill allow the user to query an OOS unit.

Response

```
PM Type: LCM  Int. No.: 9  Status index: 7  Node_No: 40
LCM ZLCM 02 0  Memory Size - Unit 0: 4M , Unit 1: 4M
ESA equipped: No, Intraswitching is Off
Loadname: LCMINV - TSTEDC09
Unit0 Loads:     Act- LEDC07AB          Stby- LEDC07AA
Unit1 Loads:     Act- LEDC07AB          Stby- LEDC07AA    *C*
REX is ON; INCOMPLETE on SAT. 1995/10/28 at 01:35:19
Node Status: {OK, FALSE}
Unit 0 Status: {OK, FALSE}
Unit 1 Status: {OK, FALSE}
Site Flr RPos  Bay_id   Shf  Description    Slot     EqPEC
ZLCM  01  K03  RLCM 02   04  LCM  02 0             6X04AA
Services : NEUTRAL
```

Command

QUERYPM

QUERYPM OOS

Explanation:

The above response is obtained for the QUERYPM command with no options. Other information may be different based on the configuration and datafill in the office. In the example shown above, unit1 has a corrupt standby load.

System action:

The system displays the information about the posted RLCM-EDC.

User action:

None

Response

Current Message Thresholds are...
Unsolicited : Unit 0 = 0, Unit 1 = 0 (limit = 200)
Data : Unit 0 = 0, Unit 1 = 0 (limit = 10)
Swerr : Unit 0 = 0, Unit 1 = 0 (limit = 50)
Fault limit = 1

	UNIT0	UNIT1			UNIT0	UNIT1
FRM_SEND_CNT	0	0	|	FRM_RCV_CNT	0	0)
FRM_RESEND_CNT	0	0	|	FRM_INV_SIZE	0	0)
RCV_UNSOL_RSP	0	0	|	PEER_INIT_ESTB	0	0)
UNSUCC_RETRANS	0	0	|	MISC_CS_ERRORS	0	0)
IUC_SEND_CNT	0	0	|	IUC_RCV_CNT	0	0)
IUC_RESEND_CNT	0	0	|	IUC_INV_FRM	0	0)
IUC_RCV_UNSOL	0	0	|	IUC_PEER_INIT	0	0)
IUC_UNSUCC_RET	0	0	|	IUC_MISC_ERRORS	0	0)

Command

QUERYPM CNTRS

Explanation:

The above response is obtained for the QUERYPM command with the CNTRS option. Information may be different based on the configuration and datafill in the office.

System action:

The system displays the information about the counters for the posted RLCM-EDC.

User action:

None

Notes

None

Examples

See earlier section.

Command name: TST

Command type

MENU

Command target

SUPERNODE

Command availability

RES

Command description

The LCMCOV REX test, available on existing LCMs, performs voltage tests on ringing generators using a POTS line card. The LCMCOV REX test is not performed on the RLCM-EDC. The COVREX option of the TST command does not apply to the RLCM-EDC. All other options apply and provide existing functionality.

Warning

None

Command syntax

No changes

Parameter Definitions

No changes

Response

This LCM does not support the LCM COVREX test

Command

TST COVREX NOW

Explanation:

This response is observed when the TST command is used with the COVREX option.

System action:

None

User action:

None

Notes

None

Examples

None

Alarms

There will be no changes to the Alarms.

DMS-100 Family

Commands Release

Reference Guide

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