TAM-1001-001

DMS-100 Family

TAS Nonresident Tool Listing

Technical Assistance Manual

BCS36 and up Standard 10.03 May 1997

northern telecom

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Publication number: TAM-1001-001
Product release: BCS36 and up
Document release: Standard 10.03
Date: May 1997

Publication history

May 1997

BCS36 and up	Standard	10.03	Remove SHOWPW command

December 1993

BCS36 and up	Standard	10.02	Updated for standard release for BCS36

October 1993

BCS36 and up	Preliminary	10.01	Updated for preliminary release for BCS36

March 1993

BCS35 and up	Standard	09.01	Reformatted to reflect tool and module names and descriptions, and BCS35 changes

July 1992

BCS34 and up	Standard	08.01	Incorporated Chapter 2 into Chapter 1

October 1991

BCS33 and up	Standard	07.01	Updated to reflect BCS33 changes

May 1991

BCS32 and up	Standard	06.01	Updated “About this document” section to reflect current standards

March 1991

BCS32 and up	Standard	05.01	Updated to reflect BCS32 changes

Contents

About this document

This document contains a list and brief description of the software tools residing on the Technical Assistance Service (TAS) nonresident tape. Module and subsystems implementing each tool are also included.

When to use this document

Northern Telecom (NT) software releases are referred to as batch change supplements (BCS) and are identified by a number, for example, BCS29. This document is written for DMS-100 Family offices that have BCS36 and up.

More than one version of this document may exist. The version and issue are indicated throughout the document, for example, 01.01. The first two digits increase by one each time the document content is changed to support new BCS-related developments. For example, the first release of a document is 01.01, and the next release of the document in a subsequent BCS is 02.01. The second two digits increase by one each time a document is revised and rereleased for the same BCS.

To determine which version of this document applies to the BCS in your office, check the release information in *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001.

How to identify the software in your office

The *Office Feature Record (D190)* identifies the current BCS level and the NT feature packages in your switch. You can list a specific feature package or patch on the MAP (maintenance and administration position) terminal by typing

>PATCHER;INFORM LIST identifier

and pressing the Enter key.

where

identifier is the number of the feature package or patch ID

You can identify your current BCS level and print a list of all the feature packages and patches in your switch by performing the following steps. First, direct the terminal response to the desired printer by typing

>SEND printer_id

and pressing the Enter key.

where

printer_id is the number of the printer where you want to print the data

Then, print the desired information by typing

>PATCHER;INFORM LIST;LEAVE

and pressing the Enter key.

Finally, redirect the display back to the terminal by typing

>SEND PREVIOUS

and pressing the Enter key.

Where to find information

The chart below lists the documents that you require to understand the content of this document, or to perform the tasks it describes.

More than one version of these documents may exist. To determine which version of a document applies to the BCS in your office, check the release information in *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001.

Number	Title
TAM-1001-000	*Index of Technical Assistance Manuals*
TAM-1001-004	*PMDEBUG User Guide*
TAM-1001-005	*BCS Maintenance Synopsis*
TAM-1001-006	*BCS Traffic Synopsis*
TAM-1001-007	*Peripheral Module Intercept System Test User Guide*
TAM-1001-008	*DEBUG User Guide*
TAM-1001-010	*SERVORD Digest*
TAM-1001-011	*Data Layout Manual*
TAM-1001-013	*MPCDebug CC Data Analyzer User Guide*
TAM-1001-014	*SCANLOG User Guide*
TAM-1001-015	*C7TU User Guide*
TAM-1001-016	*Super Nonresident Tool Listing*

What precautionary messages mean

Danger, warning, and caution messages in this document indicate potential risks. These messages and their meanings are listed in the following chart.

Message	Significance
DANGER	Possibility of personal injury
WARNING	Possibility of equipment damage
CAUTION	Possibility of service interruption or degradation

Examples of the precautionary messages follow.

DANGER
Risk of electrocution
The inverter contains high voltage lines. Do not open the front panel of the inverter unless fuses F1, F2, and F3 have been removed first. Until these fuses are removed, the high voltage lines inside the inverter are active, and you risk being electrocuted.

WARNING
Damage to backplane connector pins
Use light thumb pressure to align the card with the connectors. Next, use the levers to seat the card into the connectors. Failure to align the card first may result in bending of the backplane connector pins.

CAUTION
Loss of service
Subscriber service will be lost if you accidentally remove a card from the active unit of the peripheral module (PM). Before continuing, confirm that you are removing the card from the inactive unit of the PM.

Introduction to tool listing

The TAS nonresident tool listing defines the tools and associated modules that reside on the Technical Assistance Service (TAS) nonresident tape. A brief description is given for each tool or module, including the tool use and purpose, and any necessary cautions.

Organization

The tools and modules are organized in alphabetical order. When a tool has a specific name, the specific tool name is listed as the alphabetized header. Where module names are the same as the utility name, the module name is listed as the alphabetized header. Modules implementing each tool are included with the tool description, along with the subsystem containing the module.

Intended audience

Most tools are labeled as being intended for the Tier I, Tier II, or Tier III user. Those tools intended for the Tier I user are not potentially dangerous or service affecting. Those tools intended for the Tier II user require more extensive knowledge of the DMS switch operating system, including software knowledge and analytical skills to isolate the cause of complex problems not solvable by the Tier I user. Tools intended for the Tier III user are potentially dangerous and service affecting if not used in the proper context. These tools should be used only by Northern Telecom (NT) personnel in installation and troubleshooting.

Cautions and warnings

When necessary, warnings and cautions are provided so the user will know the possible consequences of tool use and what skills are required to use the tool properly.

TAS nonresident tools

The following paragraphs list and describe briefly the software tools residing on the TAS nonresident tape.

The tools are arranged in alphabetical order.

AARMCI

This tool is part of traffic operator position system automatic directory assistance (TOPS ADAS) and provides designer access to internal data structures within the ADAS Advanced Services Application (APU) Resource Manager (AARM). AARMCI is used for designer debugging functions.

AARMCI is implemented in the AARMCI module.

CAUTION
This tool is provided for emergency use only and should never be used without direct BNR designer supervision

ABITEST

ABITEST is a tool used to manipulate Attribute Based Internetworking (ABI) values. ABI groups are associated with suites of properties, with either boolean or gated procedures, used throughout call processing.

ABI groups and thread values are mapped one-to-one. This tool allows the user to show, modify, or define ABI groups and to set the mapping between a given thread value and an ABI group.

ABITEST is part of the UKTOOLSB subsystem and is implemented in the ABITEST module.

ACTCOUNT

ACTCOUNT is part of the ACTCOUNT subsystem and is implemented in the following modules:

- ACOUNTUI

- ACOUNTC
- ACOUNTCI
- ACOUNTP

The ACTCOUNT tool is used to recalculate the ACTCOUNT value in one or more Table OPTCTL entries.

Note 1: This tool is considered a Tier I tool.

Note 2: This tool should not be used when service order changes are being made because the changes may not be caught by a running ACTCOUNT session.

Note 3: It is recommended that ACTCOUNT not be run during peak hours.

ACTIVITY

The ACTIVITY tool is a MAP-based monitoring tool that displays the status of the DMS on a minute-by-minute basis. It monitors central processing unit (CPU) usage, ready queue delays and queue lengths, and consolidates traffic operational measurements and overload indicators.

This tool is part of the ACTIVSUB subsystem, which contains the ACTIVITY tool.

Note: This tool is considered a Tier II tool.

ADMPWCMD (admin password command)

The ADMPWCMD module includes the command interpreter (CI) code to change the administrative password in an office.

This tool is part of the ADMPWSUB subsystem, which contains the administrative password change. This subsystem allows the administrative password in a working office to be changed by the operator.

CAUTION
This module MUST be loaded only by TAS personnel.

The CI MUST be used only by user OPERATOR.

Note: This tool is considered a Tier III tool and is not intended to be used by operating company personnel.

APICI

The APICI tool is used for debugging application program interface implementation.

The module DBLCS010 provides Local Concrete Syntax for this tool and DBASN010 provides Abstract Syntax Notation One definitions. These modules work with the APICIP and APICI modules to provide full functionality of the APICI tool.

This tool is part of the XRFTOOLS subsystem.

APUMON

Advanced Services Application Monitor (APUMON) is used to monitor call processing activity for APU. The tool checks for and performs service data updates and synchronizations. APUMON allows NT personnel to verify APU provisioning and to function under ADAS call processing traffic.

This tool is implemented in the modules AMONCB and APUMON.

ARPMON

The ARPMON tool is used to monitor and debug address resolution protocol (ARP).

This tool is part of the INETOOLS subsystem, and is implemented in modules ARPMON and ARPMONCI.

ARPTRACE

This tool is part of the IPTRCSUB subsystem.

Automatic call distribution (ACD) tools

ACDDEBUG

The ACDDEBUG tool is used for debugging the ACD system. The ACDDEBUG CI provides facilities for examining and altering ACD data structures in both stationary and dynamic ACD environments. This tool may be used by NT and Bell Northern Research (BNR) support groups to collect information on ACD problems in the field.

ACDDEBUG is part of the ACDNONRS subsystem and is implemented in the following modules:

- ACDQUERY
- ACDQRYU1
- ACDQRYU2

ACDMIS Debug

The ACDMIS debug tool provides configuration information for the Automatic Call Distribution Management Information System (ACDMIS). Information is available for Table ACDMISPL and Table ACDMISSP. It provides commands to display information available from these tables, commands to display ACDMIS session data, and other general commands.

This tool is part of the ACDNONRS subsystem, and is implemented in the ACDMISDB module.

ACDMRMON (ACD management report monitor)

The ACDMRMON tool is used for debugging of the ACD management report system. It provides CIs that allow a MAP user to monitor the messages (call-related, agent position event, initialization) sent by the ACD management report systems. The messages are displayed on the MAP screen.

The ACDMRMON tool is implemented in the following modules:

- ACDMONCI
- ACDMNSON
- ACDMNARB
- ACDMNDSP
- ACDMRTST

This tool is part of the ACDTOOLS subsystem, which contains the ACD debugging tool.

CAUTION
This is an internal test tool. These modules should only be loaded by NT personnel.

Note: Automatic call distribution tools are considered Tier III tools.

AUDITCSR

AUDITCSR is a tool used by site personnel to update call service report (CSR) files on the DMS. This tool performs functions such as adding attachments, updating descriptions or fields, and changing CSR status.

Files are stored on user specified devices and can be printed.

AUDITCSR is part of the CSRUTSUB subsystem and is implemented in the modules AUDITCSR and CSRUTIL.

BCSMDBG

The BCSMDBG tool sets up BCS monitor (BCSMON) data for display. The tool will destroy BCSMON HIGHCPOCC data and fills it with dummy values.

This tool is part of the SPMSNRSB subsystem and is implemented in the SPMSDBG module. It contains switch performance monitor nonresident

software. The subsystem contains the SPMSDBG command, which displays all the data structures of the system, and the SPMSSCHD command, which examines or defines the schedule of SPMS events.

Note: This tool is intended for the Tier II user.

BMMI edit

The BMMI edit tool provides the functionality and user interface for querying and updating the bilingual man machine interface (BMMI) database used in foreign language sites. Any changes made to the database are recorded in a file which may be read by the system at a later date or at another site.

This tool is part of the BMMIEDSU subsystem, which contains the BMMI database editing commands. It is implemented in the BMMIEDIT module.

Note: The BMMI edit tool is intended for international use.

BMS (buffer management system) tools

The following tools are used for buffer management system (BMS) debugging. They reside in subsystem BMSTOOLS and are implemented in the following modules:

- BMSTOOLI
- BMSMON
- BMSTEST
- BMSTIDY

BMSMON

The BMSMON tool is used to display information about the BMS users and the BMS queues and buffers.

CAUTION
Be cautious when using this tool
Some commands may affect the queues being used by the application.

BMSTEST

The BMSTEST tool is used to trace the BMS queues for debugging purposes.

BMSTIDY

BMSTIDY is used to clean up BMS resource help from existing applications.

CAUTION
Extreme caution should be taken before using this tool
It may deallocate resources not apparent to the application.

BMSMCI

The BMSMCI tool is used for debugging the buffer management system implementation.

This tool is part of the INETOOLS subsystem, and is implemented in the BMSMCI module.

C7TUPW

The module C7TUPW is used to bypass a password check when invoking the C7TU tool. This is often used when C7TU needs to be used frequently.

This module is part of the C7TUTAS subsystem, which is the common channel signaling 7 test utility. This subsystem contains the C7TU command and associated subcommands.

Note: C7TUPW is intended for the Tier II user.

C7TUINIT

The C7TUINIT tool is used to allow CCS7 links using different network indicators to be connected to one another.

This tool is part of the C7TUTAS subsystem, which is the common channel signaling 7 test utility. This subsystem contains the C7TU command and associated subcommands.

Note: C7TUINIT is intended for the Tier II user.

CallTrak

CallTrak provides the ability to trace individual calls by selecting the originating terminal of the call. When CallTrak detects a message from a selected terminal, either a line or trunk terminal, the utility marks the call as being traced.

This tool is part of the TCALLSUB subsystem. The following modules are needed for CALLTRAK to function:

- CALLTRAK
- TCBASECI
- TCUSER
- TMBASE (part of the TOOLMBSE subsystem)
- TMPBASE (part of the TOOLMBSE subsystem)
- WORKPROC

The following modules are optional:

- MSGTRACE
- PGMTRACE
- CALLCTX
- TCLINES
- TCKLINES
- TCTIMECL
- TCTOPS
- TCTRUNK
- TCACTIDS (part of the TCLLKLNS subsystem)

CallTrak contains the individual tools MSGTRACE, PGMTRACE, and TIMECALL.

CAUTION
Real-time impact
CallTrak has a substantial real-time impact on call processing. Users should be extremely cautious when they enter the CallTrak environment. CallTrak should never be used during peak hours.

MSGTRACE

MSGTRACE monitors incoming and outgoing messages to and from terminals involved in a traced call. MSGTRACE is based on the existing tool PMIST, and provides incoming and outgoing message monitoring for all messages to and from a traced call.

This tool is part of the TCMSGSUB subsystem and is implemented in the MSGTRACE module.

PGMTRACE

PGMTRACE gives a list of the procedures called during the trace. The list is shown in the order that the procedures were called. The procedure address, its name, and the module where it is found is also given. PGMTRACE is based on the existing tool, CALLCT, and provides procedure call tracing for the call process CALLP.

This tool is part of the TCPGMSUB subsystem and is implemented in the PGMTRACE module.

Select command

The select command has various options depending upon which modules are loaded. Module TCLINES allows the user to select lines. Module TCKLINES allows the user to select key set lines. Module TCTOPS allows the user to select TOPS VCCT.

TCACTIDS module

This module contains attendant console-specific software. It allows you to select and remove by attendant console common language location identifier (CLLI).

CCDEBUG is part of the CCDEBUG subsystem and is implemented in modules CCDBGUI and MATCHP.

CHNLMAP

The CHNLMAP tool queries and modifies channel assignments of the line module (LM) and the remote line module (RLM).

This tool is part of the LMDEBUG subsystem, which contains the line module debug, and is implemented in the CHNLMAP module.

Note: This tool is intended for the Tier II user.

CMCSCI (call slot MAP display)

CMCSCI is a packet handler (PH) debug tool that verifies what input/output (call slot) the call processing is using to send messages. This tool also verifies whether an input/output address is available for messaging.

This tool is part of the PKTTOOLS subsystem and is implemented in the CMCSCI module.

LCBCI

This module, related to the packet handler, contains a storage area allocated to hold all data available to call processing during run time. It holds the data needed by CMCSCI. It is also part of the PKTTOOLS subsystem.

CMDCT

The CMDCT tool measures how long a CI command takes to execute.

This tool is part of the PREFSUB subsystem, which contains preferred users timing. It is implemented in the CMDCT module.

CMINFO

The CMINFO tool contains computing module (CM) debugging and maintenance commands, displaying hardware states, configurations, and other CM data.

This tool is part of the CMNRSUB subsystem and is implemented in the CMINFO module.

Note: CMINFO is intended for the Tier III user.

COMIS

COMIS is a tool that is used to unload commissioning modules from the switch that were loaded for testing purposes. It is run at the completion of the job to ensure no commissioning software has been left on the switch by checking for certain module names. In an initial office, COMIS unloads those modules. In an extension, it verifies that the modules are to be unloaded and then unloads them.

This tool is part of the COMISSUB subsystem, which contains the commissioning software check program. The subsystem performs the following functions:

- verifies all commissioning programs have been unloaded
- prints the names of the modules remaining in the switch that need manual unloading

Note: COMIS is intended for use by installation.

CONF6C

The CONF6C tool is used to set and report the current in-use CONF6 circuit count to a specified value for a specified customer group.

This tool is part of the RESETSUB subsystem, which is the Bellcore conference local restart subsystem. It is implemented in the CONF6C module.

CAUTION
Certain CONF6C commands are intended for testing purposes only
It could be detrimental to the stability of 6port conferencing if certain values were changed on a live switch.

CONRESET

Conreset is a tool that can be used to perform the following functions:

- 'knock down' and return to service all consoles in a customer group
- 'knock down' and return to service a single console
- 'knock down' and return to service all consoles in a single subgroup
- force release and return to service a console subgroup without a reset of the subgroup data
- restart the attendant audits

This tool is part of the RESETSUB subsystem and is implemented in the CONRESET module.

CORESWCT

The CORESWCT tool turns the core-to-core switch of activity (SWACT) boolean on and off. It also lists all peripheral modules (PM) that are not ready for core-to-core SWACT from the NT40 to ECORE on the ECORE side.

This tool is part of the CORSWACT subsystem and is implemented in the CORESWCT module.

COUNTALL

The COUNTALL tool, also in the COUNTALL module, counts the number of lines that the line option is assigned. A total count is given per option, plus a breakdown of the line class codes (LCC) where that option is found. For every LCC, it counts the total number of lines that are of that line class code.

This tool is part of the CTNONRES subsystem, which contains the commands associated with Table OPTCTL.

Note: COUNTALL is intended for the Tier II user.

CSCDEBUG

The CSCDEBUG tool is used to display data structures and the fields of the data structures for cell site controllers (CSC).

This tool is part of the MTXTLSUB subsystem and is implemented in the CSCDEBUG module.

CAUTION
CSCDEBUG is potentially dangerous.
Without detailed knowledge of the DMS software system, various CSCDEBUG commands can change how the MTX views the CSC.

CSCRESTORE

The CSCRESTORE tool is used to disconnect a pool link that is being used by the inactive unit of the specified CSC. Messages are output to indicate the outcome of the request.

This tool is part of the MTXTLSUB subsystem and is implemented in the CSCDEBUG module.

CSRUTIL

CSRUTIL is a module that contains the utilities for AUDITCSR and NEWCSR tools.

CTLNR

The CTLNR tool is used to block or unblock assignments of OPT and line control card (LCC) pair combinations.

This tool is part of the CTNONRES subsystem and is implemented in the CTLNR module.

CAUTION
CTLNR should be used only by those experienced in DMS operations.
Detailed knowledge of the DMS software system and Table OPTCTL is required to use this tool correctly.

Note: CTLNR is intended for the Tier II user.

DBCMCI

The DBCMCI tool is used to extract internal database copy information. The tool allows the user to set flags and states for the purpose of debugging within Database Copy Maintenance.

DBCMCI is part of the SCPLTUSU subsystem and is implemented in the module DBCMCI.

DDB1 is part of the DSKDBSUB subsystem.

DBENV

The DBENV CI provides the ability to

- display the current verification mode
- change the current verification mode

This tool is part of the DBENVSUB subsystem, which deals with the DB command to change verify mode. This subsystem contains the ENVQUERY command, which changes the current verification mode for the database.

Note: The DBENV tool is intended for use by installation.

DDB1

DDB1 is a stand-alone test tool used to perform debug functions on the disk drive unit (DDU). The tool allows extensive manipulation of files and volumes in a specified DDU. To invoke DDB1, issue the command DISKDEB at the CI prompt.

DEBUGMOP

This CI allows a user to restore the links to a tool called XDS in a field software load either by taking data from a dumped software image on disk or tape or from data existing in memory when the complement to this tool (CUTXDS) is run to remove access to XDS. DEBUGMOP is usually only used in the lab or fast office when a load from the field needs to be carefully debugged.

This tool is part of the XDSREST subsystem.

CAUTION
This tool should not be used in the field.
This tool should only be used when there is some functionality required that the DEBUG commands do not provide. It is potentially dangerous and disruptive.

DETNODE

DETNODE unequips all central side (C-side) links of a given node. It is used before relocating a group of nodes.

This tool is part of the DNODESUB subsystem, which contains the DETNODE command. This command unequips all C-side links of a given node and is used before reallocating a group of nodes.

Note: DETNODE is intended to be used by installation.

DILTPMBX

The DILTPMBX tool is used to display items in the line test position (LTP) mailbox pool. This tool is used to debug a tool problem which may occur in the field with LTP processes.

Note: This tool is used only by designers.

Disk tools

DISKDBG

DISKDBG is a disk maintenance command debug tool. It is used to execute input/output controller (IOC) disk maintenance commands.

This tool is part of the DSKDBSUB subsystem and is implemented in the DSKDBGUI module. The subsystem contains the disk debug commands and subcommands.

Note: DISKDBG is intended for the Tier III user.

DSKDATCI

DSKDATCI is a tool that will display all known information about the DDU data structures in the CM and the central controller (CC). This tool dumps all the descriptors for the existing volume control blocks and file control blocks associated with all of the DDUs in an office. DSKDATCI is invoked by issuing the command DISKDATA at the CI prompt.

DSKDATCI is part of the DSKDBSUB subsystem.

DSKSTRUC

The DSKSTRUC tool is used to debug the IOC disk memory-resident data structures, such as unit control block, volume control block and file control block. This tool has commands that display data structures and commands that alter them.

This tool is part of the DSKDBSUB subsystem, which contains the disk debug commands. This subsystem contains commands and subcommands for disk debugging.

CAUTION
DSKSTRUC should not be misused
Any misuse of these commands could cause serious damage to the file system. Detailed knowledge of the design and implementation of the IOC disk physical file system is required to use this tool correctly.

Note: DSKSTRUC is intended for the Tier III user.

DMCTCI

DMCTCI is a debugging tool for Deny Malicious Call Termination (DMCT). The tool provides read and write access to the hidden table DMCTLIST.

This tool is part of the DMCTQSUB subsystem and is implemented in the module DMCTCI.

DMCTQCI

DMCTQCI is a module that contains the debugging tool for the feature Deny Malicious Call Termination (DMCT). This tool displays the most recent id associated with an ACD agent that has the DMCT option assigned. The id represents the directory number of the last caller the ACD agent answered.

This tool is part of the DMCTQSUB subsystem.

DMODCNTS

The DMODCNTS tool is a CI increment which allows the user to view or reset the digital modem error counters.

This tool is part of the DMMTCE subsystem, which contains the dmodcnts command. It is implemented in the DMODCNTS module.

ENABLE

ENABLE is a tool used to allow the loading of a module or a list of modules in the field. Normally loading of modules by the load command is disallowed except through PATCHER. The enable command bypasses that protection.

This tool is part of the SYSPROT subsystem.

CAUTION
Potential exists of altering critical data
ENABLE should only be used by experienced personnel and software designers.

ENET tools

The following paragraphs describe the nonresident enhanced network (ENET) tools.

CAUTION
All ENET tools should be used only by experienced ENET designers.
It is not recommended to be used in the field unless the user is experienced in ENET software and design.

ENCDBCID

This module is part of the CI tools for updating and viewing the ENET central database fields for diagnostic purposes. Central data structures, especially for p-side maintenance, can also be viewed and manipulated.

This module contains definitions and common procedures for use by the following modules:

- ENCDBCIG, which displays stored ENET information
- ENCDBCIU, which updates ENET parameters

This tool and the above modules are part of the ENCTOOLS subsystem.

ENCRQDBG

ENCRQDBG is used to submit individual maintenance base requests and to allow control on card audit. This tool is part of the ENCTOOLS subsystem.

ENCXDBGI

A connection control debug tool, ENCXDBGI is used to query information about connections and the connection control database. This tool uses nondestructive commands.

This tool is implemented in the module ENCXDBGI.

Note: Use of this tool impacts call processing.

ENCXDBGW

A connection control debug tool, ENCXDBGW is used to make and break connections, and to change the connection control database. This tool uses destructive commands.

This tool is implemented in the module ENCXDBGW.

Note: Use of this tool will impact call processing.

ENCXLKCI (ENET connection control convert link command)

This command is provided so that when datafilling a peripheral module (PM) that is attached to an ENET, the ENET pair, card, and link retrieved from the MAP, can be converted to an ENET pair and link number. The information can be used to datafill existing PM table control.

This tool is part of the ENCTOOLS subsystem and is implemented in the ENCXLKCI module.

Note: This command should be used only until PM table control software can handle link numbers greater than 63.

ENCXPMUP (ENET central XPM upgrade)

This XMS-based peripheral module (XPM) upgrade tool turns on special ENET card table control checks for an XPM to fiberized XPM (FXPM) upgrade. These checks are turned on with the enable command. The operating company personnel then have eight hours to perform the upgrade before the checks time-out.

This tool is part of the ENCTOOLS subsystem and is implemented in the ENCXPMUP module.

ENET connection control debugger

This tool contains access commands to query the connection control map.

The ENET connection control debugger contains two modules:

- ENCXDBGI, which controls read access
- ENCSDBGI, which controls write access.

This tool is part of the ENCTOOLS subsystem.

Note: Use of this tool impacts call processing.

ENETPMX

The ENETPMX tool is used to debug or to monitor the ENCPMXUI process for the PMs that are not MTCBASE.

This tool allows the ENCPMXUI statistic counters to be cleared for use by designers in debugging functions.

ENETPMX is part of the ENETPMX module.

Note: This tool is not intended for general use.

ENINTGDB (ENET integrity fault handler debugger)

This tool can increment integrity fault counts, submit integrity reports, print handler statuses, and cause ENCP logs to be generated.

This tool is part of the ENCTOOLS subsystem and is implemented in the ENINTGDB module.

Note: Use of this tool impacts call processing.

ENPTDBGI

The ENPTDBGI tool allows user to invoke the pathtest CI level. It allows users to set up paths between specified pathends, test, and then extract data to check the path's integrity.

General users should use the pathtest tool which is available at the ENET map level.

This tool is part of the ENCTOOLS subsystem and is implemented in the ENPTDBGI module.

ENRLKUNT

ENRLKUNT is part of the junctored network (JNET) to ENET retrofit software. It provides the capability to bypass the results of a portion of the retrofit process known as the link testing.

ENRLKUNT is part of the ENRSPEC subsystem.

CAUTION
ENRLKUNT is not a field tool.
It is not desirable to bypass link testing on a field switch.

ENTRAF

ENTRAF is an ENET traffic simulation tool which intends to test the ENET traffic handling ability. The tool can generate high volume traffic in the

ENET in a short period of time and can compute the rate of successful connection.

This tool is part of the ENCTOOLS subsystem and is implemented in the following modules:

- ENTRAFDP
- ENTRAFMP
- ENTRAFUI
- ENTRAFCI

Note: Use of this tool will slow down real traffic, and can also corrupt it.

ENET card maintenance tools

ENDEBUG

This tool contains the node coordinator driver procedure and the network interface procedures for the ENET debugger network.

This tool is part of the ENCTOOLS subsystem and is implemented in the ENCDBGNC and ENCDBGNI modules.

Note: All ENET tools are intended for the Tier III user.

ENFTOSFD

ENFTOSFD creates an executable file in SFDEV which is used to verify ENET card connections. This exec invokes the ENET debug tool ENCCX, which performs tests on hardcoded links.

This tool is part of the ENCTOOLS subsystem.

Note: This tool is not valid on ENET 16K because it assumes invalid card numbers.

MATRIXCI

This module provides tools for debugging the matrix test. It allows manipulation of the different components of the matrix test, such as shelf test, Vbus test, Hbus test, and fault isolation logic.

This module is part of the ENCTOOLS subsystem.

ERASTAPE

The ERASTAPE command allows the user to format any tape regardless of its contents.

This tool is part of the TAPESUB subsystem and is implemented in the ERASTAPE module.

Note: This tool is intended for the Tier I user.

ERVSIMTC

The ERVSIMTC module is the table control for the enhanced roamer validation (ERV) simulator. The ERV simulator was designed to simulate the actions of a clearinghouse upon receipt of a query regarding a transient roamer origination or termination in an MSC.

This module is part of the MTXTLSUB subsystem.

ESRMTOOL

The ESRMTOOL is part of TOPS ADAS and permits designers to access the facilities of the Enhanced Services Resource Manager (ESRM).

This tool is implemented in the modules ESRMTOOL, ESRMTTIM and ESRMTTBT.

CAUTION
This tool is provided for emergency use only and should never be used without direct BNR designer supervision

EVEMONCI module

The EVEMON debug tool is implemented in the EVEMONCI module. This tool is used with the Database Copy Maintenance feature. The tool displays application event pegging information and is used to set or reset pegging counts.

This tool is part of the subsystem SCPLTUSU.

Note: SCP applications do not use this pegging mechanism.

EXECLIST

Note: EXECLIST is intended for the Tier I user.

The EXECLIST tool prints a matrix of all peripheral execs that reside in the software load of the DMS switch. Commands and parameters are available to customize the printout.

This tool is part of the EXLSTSUB subsystem and is implemented in the EXECLIST module.

FIND

The FIND tool contains the command that scans store for a given pattern.

Note: FIND is intended for the Tier II user.

FLMSGCI

This tool provides the capability to override the LOG field of all the tuples in Table FAILMSG.

This tool is part of the FLMSUB subsystem and is implemented in the FLMSGCI module.

FTFSUTIL

The FTFSUTIL does FTAM testing within the SDMS Billing Server project.

The tool performs the following functions on the attributes of a specified file:

- compare
- create
- delete
- dump
- list
- read

These operations use the Fault Tolerant File System (FTFS) to manipulate files on the file processor.

This tool is part of the FTFSUTSB subsystem and is implemented in the FTFSUTIL module.

FXRDEBUG

The FXRDEBUG tool is a designer tool used for monitoring and debugging File Transfer Protocol (FTP).

This tool uses the swappable module FXRTYPES.

HDLCTEST

The HDLCTEST tool is used to test the high level data link control (HDLC) capacity. The tool sends messages over the link to CSC based cells. HDLCTEST can accommodate messages of different lengths, differing directions, and can specify the quantity of messages to be sent. This tool

tests the capacity of the links and determines what type of messages are most likely to be lost during transmission.

CAUTION
This is an internal test tool. This tool should be used by NT personnel only.

ICMPTRAC

This tool is used for tracing internal control message protocol (ICMP) packets.

This tool is part of the IPTRCSUB subsystem and is implemented in the ICMPTRAC module.

ICTSTPCI

This tool is part of the NETDBG subsystem, which deals with network debugging. The subsystem contains the commands that manipulate call processing software and network maintenance (hardware and software). It also has commands that control the throttling of integrity fail reports from the PM.

Note: This tool is intended for the Tier II user.

ICTSTPUI

This tool is part of the NETDBG subsystem, which deals with network debugging. The subsystem contains the commands that manipulate call processing software and network maintenance (hardware and software). It also has commands that control the throttling of integrity fail reports from the PM.

Note: This tool is intended for the Tier II user.

IDCT

The IDCT tool allows full examination of any pools allocated, including items allocated out of any pools. It prints information about pool types, pools, and items. The user can use IDCT to pinpoint resource gobblers.

This tool is part of the ICDTSUB subsystem, which contains the IDCT variant subsystem.

IEMBLDCI

The IEMBLDCI test tool generates arbitrary events. The tool acts like an application reporting procedure and passes event data to IEMLOCUI. Because the user must specify content, segment by segment, in terms of hex,

decimal, or ASCII values, detailed knowledge of data packing in the various event data structures is required for successful use of the tool.

IEMDBG

The IEMDBG tool provides the user with the ability to browse and manipulate data which is handled by the DMS event handling system. Events are transparent to the user but the output is seen as standard log reports.

This tool is part of the IEMDBGSB subsystem and is implemented in the IEMDBG module.

CAUTION
IEMDBG should be used with extreme caution.
Some commands manipulate the internal data of IEM and should be used with caution.

IMTKSWCT

This module provides the INTLSWCT command with the procedure required to transfer meter counts for trunks during an international application. Real instances of the procedure variables are contained within this module.

IMTRSWCT

This module provides the INTLSWCT command with the procedure required to transfer meter counts for lines during an international application. Because the line and meter definitions cannot be imbedded within the INTSWCTI module, this procedure is defined separately. Gates for this procedure are defined within INTSWCTI.

INETEST

The INETEST tool is used for debugging and performance monitoring of Internet protocols.

This tool is part of the INETOOLS subsystem, and is implemented in the INETEST module.

INITDBG

The INITDBG tool provides debugging utilities for initialization order problems. A user can query the initialization order of the modules on the switch, or check the sanity of the initialization order.

INTLSWCT

The INTLSWCT tool is used to transfer data during international software applications.

This tool initiates the BCS application, performs a status check on active and inactive devices, allows for a switch of activity (SWACT), resets meters to zero, and updates meter counts and wakeup data on the new BCS, prior to a SWACT.

This tool is part of the BCSFTRSB subsystem and is implemented in the INTSWCTI module.

Note: This tool is intended for international use.

IOQUERY

The IOQUERY tool allows the user to query the internal state of the input/output system. It also allows for the invocation of certain test gates for testing purposes.

This tool is part of the IOUTSUB subsystem, which contains the input/output system query commands. It is implemented in the IOQUERY module.

CAUTION
IOQUERY is not intended for end users.
Some commands, if used inappropriately, can cause system-wide problems. The user should have extensive knowledge of the internal operation of the DMS system.

Note: This tool is intended for the Tier II user.

IPPACI

This tool does a performance analysis of the Internet Protocol (IP) layer and reflects data on activities such as CPU consumption and data rates.

IPPTF

The IPPTF tool is the Internet packet tracing facility.

This tool is part of the IPTRCSUB subsystem, and is implemented in modules IPPTFUI and IPPTFCI.

IPROUTCI

This tool is used for debugging and monitoring internet protocol (IP) routing and throttling.

This tool is part of the INETOOLS subsystem, and is implemented in the IPROUTCI module.

IPTRACE

The IPTRACE tool is used for tracing IP packets.

This tool is part of the IPTRCSUB subsystem and is implemented in the IPTRACE module.

ISDN debug tools

The following tools provide integrated services digital networks (ISDN) debugging.

Note: ISDN tools are intended for the Tier II user.

ISDGB

ISDBG is a directory of ISDN tools. Some of these tools are the isdbg, chanmap, diagcard, chanaud, lineaud, syncaud, and linktolen commands.

This tool is part of the ISDBGSB subsystem and is implemented in the ISDBG module.

QL

The QL, or ISDQLOOP, tool queries line data of terminal ID and its CHIDs, logical terminal identifiers (LTIDs) and VIDs for an ISLC loop.

This tool is part of the ISDBGSB subsystem and is implemented in the ISDQLOOP module.

SVSTATE

The SVSTATE tool sets the virtual identifier (VID), LTID, and CHID or terminal ID (TID) line or terminal state. Line state includes those displayed in the LTP MAP level. Terminal states include internal input/output handler states.

This tool is part of the ISDBGSB subsystem and is implemented in the SVSTATE module.

ISUPCI

The ISUPCI tool is a tool used for ISDN user part (ISUP) maintenance test activities. It provides the following capabilities:

- examine and update ISUP tables and variables
- examine, set, and stop timers for trunks
- send messages
- display and set the status of ISUP hardware

This tool is part of the ISUPTEST subsystem, which contains the CCS7 ISUP test tools. It is implemented in the ISUPCI and ISUPMTUI modules.

ISUPCILB

An increment of ISUPCI, ISUPCILB commands allow the user to initiate various ISUP maintenance events. This tool allows the user to access and alter various internal data structures used by ISUP maintenance.

CAUTION
These commands may affect the normal functioning of ISUP maintenance.
ISUPCILB commands are available only in the labs.

ITNDBCI

The ITNDBCI tool is used for debugging and monitoring the Internet database.

This tool is part of the INETOOLS subsystem, and is implemented in the ITNDBCI module.

IWTAB

The IWTAB command was deleted in 1988 when international call processing converged into the North American base. It provided a tool for writing international threads, thread groups, xthreads, and CP tables, as well as patching a table within module ICPTABUI. It contained international call processing procedure variable types and tables.

This tool is part of the ICPWTAB subsystem and the IWTAB module.

JNET tools

The junctored network (JNET) tools are described below. The tools NMTRAF, NETDBG, and NMDBG are part of the NETDBG subsystem, which deals with network debugging. The subsystem contains the commands that manipulate call processing software and network maintenance (hardware and software). It also has commands that control the throttling of integrity fail reports from the PM.

CAUTION
NMTRAF package, NETDBG, and XNMDBG are meant for use in a lab environment.
These tools are not recommended for live office use.

Note: These tools are intended for the Tier II user.

NETDBG

NETDBG is used for debugging the JNET maintenance software system. It is implemented in the NETDBGUI module.

NETDBGUI

The utility NETDBGUI allows the user to trace the execution of a task within the JNET maintenance subsystem.

NMTRAF package

This tool is a JNET traffic simulation package that is used for debugging JNET call processing problems.

This tool is implemented in the following modules:

- NMTRAFCI
- NMTRAFDP
- NMTRAFMP
- NMTRAFTP
- NMTRAFUI

TRACEDN

This CI traces a specific call determining the path used for that connection from the telephone set up to the network. This tool is part of the TDNSUB subsystem and is implemented in the TRACEDN module.

XNMDBGUI

XNMDBGUI is a set of tools which controls JNET hardware by messaging the given hardware module. The tools allow for path setup, path take down, the manipulation of port status, and other low level tasks controlled by the Network Control Processor (NCP) firmware.

Killer trunks

The nonresident killer trunk (KT) tool is used to bind the resident KT system into Device Independent Recording Package (DIRP) without needing a restart. The entries are made into the DIRP tables and the KT nonresident commands are issued instead of doing a restart.

The KT tool is implemented in the following modules:

- older version (part of the KTDUMSUB subsystem)
  - — KTBIND
  - — KTUNBIND
- newer version, part of the (KTRDMSUB) subsystem
  - — KTRBIND
  - — KTRUNBND

The KTDUMP module contains a command used to display the contents of a KT result file generated by the NOSKT process and verifies data displayed on the log system, or displays a report interval that has been lost. This module is part of the KTDUMSUB subsystem.

LFSSIM1

This tool is part of the TESTMCCS subsystem.

LFSSIM2

This tool is part of the TESTMCCS subsystem.

LIMMONCI module

The LIMMON tool is implemented in the LIMMONCI module. The tool is used to monitor messages to the Link Interface Module (LIM) Finite State Machine software that resides in the CM. LIMMON also captures run time data, including link and node state information at the instant messages are received.

LIMMON is part of the LIMCMTLS subsystem.

LINEDMO

LINEDMO provides the ability to put a DMOPRO file for Table LNINV and Table LENLINES into SFDEV.

This tool is part of the ENCTOOLS subsystem and is implemented in the LINEDMO module.

Note: This tool is intended for the Tier III user.

LMCHI

The LMCH command dumps a specified line module (LM) channel assignment map.

This tool is part of the LMDEBUG subsystem and is implemented in the LMCHI module.

Note: This tool is intended for the Tier II user.

LM debug

The following modules implement the LM debug tool:

- LMDUMP – displays the contents of specified memory
- LMUTIL – monitoring tool for debugging an LM from the central control (CC) or CM side
- TABMTCE – a table control testing facility for adding and deleting PMs and networks

This tool is part of the LMDBGSUB subsystem, which contains the LM utility.

Note: This tool is intended for the Tier II user.

LMXUTIL

The LMXUTIL utility contains commands for transferring LM execs.

This tool is part of the LMXUTSUB subsystem, which contains the LM utilities for BCS application. It is implemented in the LMXUTIL module.

LNAMES

The LNAMES tool is used to display the allocation of local names within the local support operating system (SOS) node. This tool is only required in debugging. Some of its functionality resides in TPSMON.

This tool is part of the TPSTOOLS, which contains the TPS application debug tools.

Note: This tool is intended for the Tier III user.

LNUPENFO

LNUPENFO allows the user to both disable and enable the exec lineup table control restrictions. It also provides the capability to query the present status of the table control restrictions enforcement.

This tool is part of the subsystem PMEXLOAD, which deals with PM exec loading. It is implemented in the LNUPENFO module.

Note: This tool is intended for the Tier II user.

LTCCHNL

The LTCCHNL tool allows the user to visually inspect the c-side to p-side channel mapping for line trunk controller (LTC) node type peripherals. The tool provides the capability to isolate channel corruption and also indicates the terminal identifier (TID) associated with the channel.

This tool is part of the XCHNLSUB subsystem, which contains the channel utility commands for XPMs. It is implemented in the LTCCHNL module.

Note: This tool is intended for the Tier II user.

LTP mailbox cleanup

The LTP mailbox cleanup tool cleans up the LTP mailbox pool without a warm restart. It deallocates its mailboxes, reallocates the pool, and allocates a new mailbox.

The LTP tool is part of the LTPMBSUB subsystem and is implemented in the LTPMBXCL and DILTPMBX modules.

Note: This tool is intended for the Tier II user.

Maintenance network (MTCNET) debug tools

CAUTION
All MTCNET tools should be used only by experienced MTCNET designers.
It is not recommended to be used in the field unless used by users experienced in MTCNET software and design.

MNETDBUG

This tool is used to debug the matrix transactor network (MTCNET) utilities.

It is part of the ENCTOOLS subsystem and is implemented in the MNETDBUG module.

MTCNET debug

This tool is used to test the MTCNET.

It is part of the ENCTOOLS subsystem and is implemented in the following modules:

- MTCDBGCI
- MTCDBGUI, which contains the MTCNET debugger definitions and implementation code

Note: These tools are intended for the Tier III user.

MBCT

The MBCT tool inspects all mailboxes for potential trouble. It inspects all mailboxes in the system and displays various information accumulated during the pass.

This tool is part of the MBCTSUB subsystem, which deals with the count SOS mail boxes, and is implemented in the MBCT module.

Note: This tool is intended for the Tier II user.

MCCSLOCL

This tool is part of the TESTMCCS subsystem.

MCCSTEMP

This tool is part of the TESTMCCS subsystem.

MCCSTMP2

This tool is part of the TESTMCCS subsystem.

MDB250TS

This tool is part of the MNSGDBTS subsystem, which contains the NSGDBDEV nonresident test tools. This subsystem contains the DB250TST command, which tests the NSGDB features, and the NEKTEST command, which tests the NSGDBDEV features.

Note: This tool is intended for the Tier III user.

MEMCOM

This command reads operational measurement (OM) information from the file OMS in SFDEV. The OMS file is created by the OMDUMP ALL command.

This tool is part of the DRSUBDMP subsystem and is implemented in the MEMCOM module.

Message switch tools

The following paragraphs describe tools related to the message switch (MS).

CAUTION
All MSTOOLS are not supported in the field.
If used improperly, they may cause traps and restarts. Some may be outdated and if used on the wrong equipment, may cause service-affecting outages.

MSCARB

The MSCARB tool runs on the CM and is a central MS tool. It is used to save messages that are received in a finite state machine (FSM) and placed in a state of arbitration. This tool applies to the node, card, port, daisy, and link FSMs.

MSCARB is part of the MSCTOOLS subsystem, which contains the message switch central test tools. It is implemented in the MSCARB module.

MSCCNTS

This tool tracks the logical states of chains, cards, ports, and channelized links.

MSCCNTS resides on the CM and applies to MS resources only.

MSCDBCI

The module MSCDBCI contains the MSCDUMP tool used to examine and change central MS maintenance data. Commands relative to this tool can enable or disable the message switch central scratchpad and the central trace tools.

MSCILDBG

MSCILDBG is a test tool used in integrated link maintenance (ILM) development. It is part of the MSCSNTLS subsystem and is implemented in the MSCILDBG module.

MSCMUMPC

The tool MSCMUMPC controls MUMP fault processing. It sets a test environment for MUMP fault testing.

> ***Note:*** Commands within this tool can cause the message switch to go system busy.

MSCSCPD

The MSCSCPD tool provides commands that examine the contents of operation mode scratchpads. Used with the tool MSDUMP, MSCSCPD may be used to dump data coinciding with state progression displays on the remote terminal interface (RTIF) for a node, card, port, chain, link, or channel during return to service, busy, test, etc.

This tool is part of the MSCTOOLS subsystem and is implemented in the MSCSPDCI module. The subsystem contains the message switch central test tools. Module MSCSPDUI is used by this tool.

MSCTRACE

MSCTRACE runs on the CM and is a central MS tool. It is used to trace operation and information mode messages between central and local and messages within central. The messages are either monitored and processed, or intercepted and not processed.

This tool is part of the MSCTOOLS subsystem, which contains the message switch central test tools. MSCTRACE is implemented in the MSCTRACE module. This subsystem contains module MSCDBCI (message switch central database command interpreter) which provides a facility for the retrieval of configuration data from the message switch central database.

MSCSNDBG, MSCSNMFT, and MSCSNTUI modules

These modules are part of the MSCSNTLS subsystem and perform formatting of ILM messages.

MSCTCDBG

This tool is part of the MSCSNTLS subsystem.

MSGCOUNT and MSGCICNT

The MSGCOUNT tool for tracking messages from the CM or the MS to a destination, including a port, node, or FTA.

This tool is part of the MSCTOOLS subsystem, which contains the message switch central test tools. It is implemented in the MSGCICNT module.

This tool is part of the MSTOOLS subsystem and is implemented in the MSINFDCI module.

MSRELCUT and MSRELOCI modules

ENMOVEPM is implemented in the MSRELCUT and MSRELOCI modules. EVMOVEPM is the actual tool that relocates message switch ports. The command moves PM port allocations on the message switch chain to the lowest possible port numbers.

The command can be used for hardware upgrades of chain cards which allows for the consolidation of PM ports and frees message switch slots.

MOBORIG

MOBORIG is a stand-alone test tool that simulates the sending of an origination message from the peripheral to the computing module.

MOBORIG is part of the MTXTLSUB and is implemented in the MOBORIG module.

MODINV

The MODINV module contains the MODINV command. This command is used to perform a delta between the modules and edition codes of a reference image contained in a reference file, and the image in store.

This tool is part of the MODINVSU subsystem. This subsystem contains the module inventory utility program.

Note: This tool is intended for use by installation.

MPCDEBUG

The MPCDebug tool provides a method to capture and display copies of datalink messages between a multiprotocol controller (MPC) and a remote node. It captures messages and records information that relates to each message.

This tool is part of the MPCDBSUB subsystem. The subsystem allows the user the ability to test individual MPC boards, and to use the MPCD command, which enters the debug increment of the MAP level for the MPC.

Note: This tool is intended for the Tier II user.

MTCDBG (maintenance base debug)

The MTCDBG tool, or package, provides the maintenance user with a set of commands in order to monitor resource usage, trace request execution, and interact with the maintenance base subsystem. MTCDBG contains various commands and the following two tools:

- MTRACK, which is a maintenance base event tracking tool
- MAINTCT, which is a maintenance base performance tool

This tool, or package, is part of the MTCDBGSB subsystem and is implemented in the MTCDBG module. The subsystem contains the nonresident debug package for MTCBASUB.

Note: This tool is intended for the Tier II user.

MTKPRINT (trunk metering printing)

The MTKPRINT tool is used to print a trunk metering billing file. It is part of the MTKPRINT module.

This tool is part of the MTBILSUB subsystem, which deals with metering billing.

Note: This tool is intended for the international user.

MTRPRINT (line metering billing)

The MTRPRINT tool is used to print a line metering billing file. It is part of the MTRPRINT module.

This tool is part of the MBILLSUB subsystem, which deals with the print metering billing tape. This subsystem prints, displays, and clears meter billing files or meter block.

Note: This tool is intended for international use.

MTRTEST (meter test)

The MTRTEST tool is used in the field to help debug metering problems. It is the catch-all tool which contains the safe metering test commands. This tool is part of the MTRTEST module.

This tool is part of the MBILLSUB subsystem, which deals with the print metering billing tape. This subsystem prints, displays, and clears meter billing files or meter block.

Note: This tool is intended for international use.

MTXCRANK

MTXCRANK is a stand-alone test tool that is used to test the real time file transfer. It 'cranks out' mobile telephone exchange (MTX) call detail recordings (CDR) at call processing (CP) priority. This tool will print traps if the threshold is set too high, as well as optional summary reports.

This tool is part of the MTXTLSUB subsystem and is implemented in the MTXCRANK module.

MTXRFPCI

MTXRFPCI is a test tool that is used to aid in designer testing. It is a debug tool for the MTX RFPIN feature. When activated and if the RFPIN feature is active, this tool will display the different events and states occurring in the RFPIN feature. On call deaths, this tool will save all relevant information utilizing the DISPCALL tool.

This tool is part of the MTXTLSUB subsystem and is implemented in the MTXRFPCI module.

NEWCSR

The NEWCSR tool allows a user to create call service reports (CSRs) on a DMS as a file with attachments. It is a single file that includes a CSR-like form and any attachments related to the problem.

NEWCSR is available to all users currently logged on to the DMS including dial-ups. The tool can be used by more than one user at the same time, but care should be taken to ensure that the filename used is unique.

This tool is implemented in the following modules:

- CSRUTIL
- AUDITCSR

This tool is part of the CSRUTSUB subsystem, which allows the customers to write customer service orders.

Note: This tool intended for the Tier I user.

NUMLINES

The NUMLINES tool allows the user to check the current integrated business network (IBN) line count of an office. If the value is found to be corrupt, it can be reset to the correct value.

This tool is part of the RESETSUB subsystem, which is the Bellcore conference local restart subsystem. It is implemented in the NUMLINES module.

Note: This tool is intended for the Tier I user.

NWKMTCCI

The NWKMTCCI test tool is used to send an unreliable roamer a data directive to a particular location.

This tool is part of the NWKMTCCI module.

OMTEST

The OMTEST tool is used for debugging internal OM implementation.

This tool is part of the INETOOLS subsystem, and is implemented in the OMTEST module.

OPTCOUNT

The OPTCOUNT test tool allows the user to perform the following functions:

- count the number of lines a given line option is currently assigned
- count the number of lines that contain all the line options in a given set
- count the number of lines that contain one or more line options in a given set

Results are presented as a total number of lines with a further breakdown per line class code.

OVLPCI

OVLPCI shows the status of line-to-trunk call overlap outpulsing. The tool can set and display the outpulsing as on (allowed) or off (disallowed).

This tool is part of the OVLPCISB subsystem, which contains the overlap outpulsing nonresident CI. It is implemented in the OVLPCI module.

Note: This tool is intended for the Tier II user.

PATCHDBG

The PATCHDBG tool allows the user to view, modify, create, and delete various PATCHER data structures. The display and manipulation

capabilities are primarily applicable to structures that track the names and application statuses of XPM and ISN patches. Only minimal capabilities exist for manipulating central control patch data. PATCHDBG also provides the ability to rename any patch in the patch directory, including CC, XPM, and ISN patches.

PATCHDBG affords the user little protection against making errors that will be disruptive to the patching system and possibly to the XPM loading system. In most instances, PATCHDBG performs the requested data modifications without verifying that the changes are accurate or compatible with other data in the PATCHER system. Some commands are password protected, however.

This tool is part of the PATDBGSB subsystem and is implemented in the PATDBGCI module.

CAUTION
PATCHDBG should be used with extreme caution and by qualified personnel only.
It is important that any user have a good understanding of internal PATCHER system operation and of the function of the data structures being modified.

Note: This tool is intended for the Tier II user.

PCCBS

PCCBS is a stand-alone test tool that prints the originating and the terminating mobile subscriber numbers. This tool will print the callid for the active call condense block.

PCCBS is part of the MTXTLSUB and is implemented in the PCCBS module.

PHITEST

The PHITEST tool is used to set a test flag for Table PHINFO and PHINFO audit. The audit process can be disabled and checking can be turned off.

This tool is part of the SOPHILAB subsystem and is implemented in the PHITEST module.

PHSTEST

The PHSTEST tool is used to generate service provisioning requests, based on Table PHINFO, to the SUN 380 based ISDN OAM processor.

PHSTEST is part of the SOPHILAB subsystem and is implemented in the PHSTEST module.

PREFDUMP

The PREFDUMP is part of the tool PPREFCT a tool that measures and cleans up guaranteed background processes.

The QCS tool is part of the PREFSUB subsystem, which contains preferred users timing. It is implemented in the following modules:

- CLEANGBK
- PREFCT
- PREFP
- PREFSCAN
- PREFDUMP

PRIVERAS

The PRIVERAS command, implemented in the PRIVERAS module, is a privileged erase file command. It is used to erase any file, including files marked No_Erase_From_CI.

This tool is part of the DSKDBSUB subsystem, which contains the disk debug commands and subcommands.

Note: The PRIVERAS command is intended for the Tier I user.

PROCCT

The PROCCT tool counts SOS procedures and provides the following:

- the PROCCT command, which inspects all processes for potential trouble
- the ability to determine number of processes, background processes, and total size of the stack.

This tool is part of the PROCCSUB subsystem and is implemented in the PROCCT module.

Note: This tool is intended for the Tier III user.

PROFCT

PROFCT is a tool used to record processes' resource consumption in the CC. It quickly identifies processes that are consuming large amounts of CPU time over extended sampling periods. Although other tools are available for more accurate measurements, their sampling durations are short and their output is voluminous.

Profct is single-user, with respect to tracing, and operates in one of the three modes one-shot, continuous, or restart.

PTRACE

The PTRACE tool allows the user to monitor both device management and system load module (SLM) volume server process activity during the investigation of a file system related problem. For device management, the user can monitor all operations being executed on a particular device. For the volume service, the user can monitor all file system operations requested on the volume.

This tool is part of the DKNR subsystem, which contains software load module debug, and is implemented in the TERMINAL module.

QCS

QCS is a stand-alone test tool that prints the call data and the status of each mobile subscriber in the mobile's Home Location Register.

The QCS tool is part of the MTXTLSUB and is implemented in the modules QCS and QCSIPL.

CAUTION
This is an internal test tool. This tool should only be used by NT personnel.

QCT

This tool provides the capability to follow various queues and check for possible corruption.

This tool is part of the QCTSUB subsystem, which checks Q links. It is implemented in the QCT module.

Note: This tool is intended for the Tier II user.

QUERYHNT

QUERYHNT is a tool that directly polls the hunt groups physical data and displays it.

This tool is part of the QFTRSUB subsystem, and is implemented in the QUERYHNT module.

Note: This tool is intended for the Tier III user.

QUERYMSB

The QUERYMSB tool is used to poll directly the line equipment number's (LEN) physical make set busy (MSB) bits associated with a keyset or Integrated Business Network (IBN) set. It then displays the data.

This tool is part of the QFTRSUB subsystem, and is implemented in the QUERYMSB module.

Note: This tool is intended for the Tier III user.

RBLDINFO

This tool is part of the REBUILD subsystem.

RBLDINIT

This tool is part of the REBUILD subsystem.

RBLDUI

The RBLDUI tool provides the BCS loader with the ability to perform an extended equivalence check. RBLDUI initializes ready to manufacture (RTM) loads versus the RTS cross reference table from the RBLD$XREF file, which is used for the extended equivalence check. This check verifies that any differences between the editions of modules imbedded during the compilation and those in the switch are due to the application of patches.

This tool is part of the REBUILD subsystem, and is implemented in the RBLDUI module.

RCCMAP

The RCCMAP tool dumps RCC-LTC channel maps.

This tool is part of the XCHNLSUB subsystem, which contains the channel utility commands for XPMs. It is implemented in the RCCMAP module.

Note: This tool is intended for the Tier II user.

RCLR (clear recycle meters)

The RCLR tool is used to clear recycle meters. The meters audit will attempt to clear these recycle meters on its third consecutive run. If something goes wrong and this fails, an alarm will occur. RCLR will itself clear the recycle meters table and turn off the alarm.

In clearing the recycle meters, the administration may or may not wish them to be written to the out of service (OOS) file. A parameter of this command states whether cleaned up recycle meters are to be written to OOS or not.

The RCLR tool is part of the METCISUB subsystem and the RCLR module. The subsystem deals with test CI procedures for metering.

Note: This tool is intended for the Tier III user.

REMDEBUG

This tool is part of the REMDBGSB subsystem.

RETLINES

RETLINES is a tool used for NT40 to SuperNode retrofit BCS applications. This tool allows the new load to be aware of the previous load's line drawer states, and is matched according to the files that were dumped from the old load specifically for this purpose.

RETLINES is in the subsystem RAPPLSUB.

RETROFIT

RETROFIT is a tool which provides the capability to allow over night processing (ONP) to work for processor conversion. The modules that implement this tool are used as part of the ONP for the sites that are converting from NT40 to SuperNode. The modules are needed until there are no longer any NT40 switches in service.

This tool is implemented in the following modules:

- RETLINES
- RETROCI
- RETROUI

This tool is part of the RAPPLSUB subsystem.

RMM tools

The following tools and modules deal with resource maintenance manager (RMM) tools.

INMLAUDCI

This module gives BNR designers some control over the audits that run in a component of the integrated node maintenance called the local agent.

It is part of the RMMTOOLS subsystem and is implemented in the INMLAUDCI module.

INMRMMSM and RMMCI

This pair of modules support designer testing of the integrated node maintenance internal software interface called RMM.

They are part of the RMMTOOLS subsystem.

CAUTION
These tools are for knowledgeable BNR personnel only.
If used incorrectly, the tools can easily cause a node to go out of service.

Note: These tools are intended for the Tier III user.

ROSP

The ROSP tool is used for debugging remote operation service provider implementation.

It is part of the XRFTOOLS subsystem and is implemented in modules ROSPCI and ROSPCIP.

RTSCP

This tool is part of the LMXUTSUB subsystem, which contains the LM utilities for BCS application. This subsystem contains the

- rtslms command, which is used to RTS LMs
- the lmxutil utility which contains commands for transferring LM execs

RTSDP

This tool is part of the LMXUTSUB subsystem, which contains the LM utilities for BCS application. This subsystem contains the

- rtslms command, which is used to RTS LMs
- the lmxutil utility which contains commands for transferring LM execs

RTSDRWRS

RTSFRWRS is a test tool that is used for NT40 to SuperNode retrofit BCS applications. This tool performs a function that allows the new load to be aware of the previous load's line drawer states, and is matched according to the files which were dumped from the old load specifically for this purpose.

RTSDRWRS is in the DRWRSNR subsystem.

RTSLMS

The RTSLMS command is used to return LMs to service.

This tool is part of the LMXUTSUB subsystem, which contains the LM utilities for BCS application. It is implemented in the RTSLMS module.

RVIDCI

The RVIDCI tool is used to look at the contents of various tables associated with VIDs. This tool operates on the VIDMAP and the input and output MAPPROC tables.

This tool is part of the VIDCISUB subsystem, which is the VID mapping subsystem. It is implemented in the RVIDCI module.

Note: This tool is intended for use by Tier III personnel.

RWOK

The RWOK tool permits read and write access to restricted data.

This tool is part of the RWOKSUB subsystem, which provides write access to office tables. It is implemented in the RWOK module.

Note: This tool is intended for the Tier I user.

RWOP

The RWOP tool is used to enable full read and write access to Table OPTCTL, allowing the user to define new tuples and to modify other OPTCTL fields.

This tool is part of the CTNONRES subsystem and is implemented in the RWOPTCTL module.

CAUTION
RWOP is designed for use in emergency situations only.
Detailed knowledge of the DMS software system and Table OPTCTL is required to use this tool correctly.

Note: RWOP is intended for the Tier II user.

SA8CAST1

This module implements the ASNTEST CI command which allows the implementation of a primitive designer test tool that tests the 800 Service record retrieval routines. The tool is specific to 800 Service and is executed on the unified processor (UP).

SA8CPPCI

SA8CPPCI is a module that implements the command DBPOP. This command allows users to perform the following functions:

- Store records in the database submitted through the SCP2800 command
- modify database records through SCP2800

- retrieve records from the database

This tool does not use conventional methods to access the database. DBPOP has two options, validation on, which requires data be validated prior to submission to the database, and validation off, which allows submission of data without validation.

This tool is specific to 800 Service.

SA8CUTCI and SA8CUTUI modules

Collectively, these modules implement the command SCP2800 which provides an 800 service specific interface that allows a user to enter database record information. The DBPOP tool then transfers the data to the database.

This tool operates on the UP, is specific to the 800 service, and does not validate entries.

SA8GCACI

The SA8GCACI module implements the CACI test tool. The tool allows for the testing of records with the call allocator feature. The user can send multiple queries to the records of a call allocator, gather statistics about the terminations, and receive data back.

The tool was designed to test records with the call allocator feature and to measure the statistical accuracy of the feature.

CACI is specific to 800 Service and executes on a Query Processor (QP).

SA8GQTCI

The module SA8GQTCI implements the QT800 test tool and executes on a QP. It allows testing of the query processing software independent of the CCS7 interface.

SADBG

The SADBG tool is a stand-alone tool used to monitor the tracking function of the Service Analyst. The tool verifies that an analyst is searching for a call to monitor and prints data associated with the analyst.

SADBG is part of the SADBGSUB subsystem and is implemented in the module SADBG.

SAGBASIN

This module implements the primitive database scanner DBSCAN. This tool tests database retrieval routines and allows designers to create simple applications to retrieve records from 800 Service databases.

SAGGUCMP

This module implements the COMPF command, a subcommand of DBSCAN. COMPF does a record by record comparison of two files from the 800 Service database in SFDEV and places the results in a file.

COMPF is specific to 800 Service and executes on a File Processor (FP).

SCAIDBG

The SCAIDBG tool is a CI command written for the Information Services Network (ISN) platform on the ACD (SL–100) switch. This tool allows the user to query and set the status of the default switch computer application interface (SCAI) D–Channels and to display the CLLI, the member number, or the node and terminal number of the SCAI agent.

This tool is part of the ACDTDBSB subsystem and is implemented in the SCAIDBG module.

SCPLCRCI

SCPLCRCI is a debug tool for the Central Resource Manager (CRM) maintenance feature. The tool will display central and local internal CRM maintenance information. This tool also allows the user to set and reset certain events for debugging purposes.

SCPLCRCI is part of the SCPLTUSU subsystem and is implemented in the module SCPLCRCI.

Note: The CRM feature is not provided to customers.

SCPLDDCI

SCPLDDCI is a debug tool for the feature Local Distributed Database Management (LDDM). This tool operates in a UP and FP and displays the updated roll forward progress status to determine whether any slave has an update backlog situation.

This tool is part of the SCPLTUSU subsystem and is implemented in the module SCPLDDCI.

SCPLQPCI

SCPLQPCI is a debugging tool for the feature Local Query Processing Maintenance (LQPM). The tool can be used to display query processing and query congestion information. This tool will also query processing operational measurements (OMs).

This tool is part of the SCPLTUSU subsystem and is implemented in the module SCPLQPCI.

SCPLTLIM

The SCPLTLIM module allows service tools to access base information and utilities not usually required by service's code. The tool provides gating aspects for the module SCPSTLUI.

This tool is part of the SCPLTUSU subsystem.

SCPMLUCI, SCPMLUI AND SCPMT8CI modules

Collectively, these modules implement the SCPDBREQ test tool. This tool allows for the direct submission of updated batch files to the update processor without going through the update batch handler (UBH).

Note: This tool should not be used while UBH is active.

SCPUBCI

The SCPUBCI is a debugging tool for local Update Batch Handler (UBH) maintenance. This tool will dump information about the internal data structure of the local UBH. SCPUBCI can set or reset internal events for debugging purposes.

This tool is part of the SCPLTUSU subsystem and is implemented in the module SCPLUBCI.

SCPUHCI

SCPUHCI is a debugging tool that can dump information from the UBH's internal data structure. This tool will also send messages to trigger events for debugging purposes.

This tool is part of the SCPLTUSU subsystem and is implemented in the module SCPUHCI.

SCPUPICI

The SCPUPICI is a debugging tool used to display update processor and audit database information.

This tool is part of the SCPLTUSU subsystem and is implemented in the module SCPUPICI.

SEDEF

SEDEF is a module that defines the test tool XRSE, a general purpose test tool that operates on the Transactional Record Management System software. This is a designer level test tool that provides test drivers for Client Interfaces.

SETCRSN

The SETCRSN tool allows the user to set individual digits within the call record sequence number. This is necessary for testing purposes so that the count can be set to values without the need to make that number of calls.

This tool is part of the UKTOOLSB subsystem and is implemented in the SETCRSN module.

SLM tools

The following tools assist in debugging the SLM device.

DKFMTEST (Logical file system test tool)

DKFMTEST is a file system interface design test utility also applicable to file systems related recovery on all DMS file system types, including SLM, SFDEV, DDU, and 9-track tape. Enhanced support is provided for the SLM file system while a very limited support is given to the fault tolerant file system (FTFS). DKFMTEST provides the following functions:

- file record data display (applicable to BCS34 and up)
- emergency close file if the file reference number is known
- display capability of most SLM file system in-memory data structures
- SLM volume space audit for missing space.

This tool is part of the DKNR subsystem, which contains software load module debug, and is implemented in the DKFMTEST module.

DMDBG (Device management test and debug tool)

The DMDBG tool provides command interface to the device management layer of the SLM file system and FTFS. This interface, intended for designer testing, may also be used, as a last resort, for investigation and recovery purposes.

The DMTEST1 module, which implements the DMDBG tool, provides the code for SLMDBG super command and its associated subcommands. This super command provides the user with some functionality to fix or debug problems with data stored on the tape and disk devices of the SLM device.

DMDBG is part of the DKNR subsystem.

SLMDBG (SLM debug tool)

The SLM debug tool was created for TAS to permit basic disk and tape block reading, editing, and writing for problem investigation and recovery. Its functionality is incorporated within the FSDR tool with the exception that SLMDBG can be used on an in-service device.

This tool is part of the DKNR subsystem, which contains software load module debug. It is implemented in the DKNR01 module.

SPMSDBG

The SPMSDBG tool allows the user to further investigate problems they feel may be related to switch performance monitoring software (SPMS). It allows the user to display internal data structure of SPMS.

This tool is part of the SPMSNRSB subsystem is implemented in the SPMSDBG module. It contains switch performance monitor nonresident software. The subsystem contains the SPMSDBG command, which displays all the data structures of the system, and SPMSSCHD command, which examines or defines the schedule of SPMS events.

Note: This tool is intended for the Tier II user.

SPMSSCHD

The SPMSSCHD tool allows the user to change the time in which SPMS process runs its calculation. This is used for debugging only.

This tool is part of the SPMSNRSB subsystem and is implemented in the SPMSDBG module. It contains switch performance monitor nonresident software. The subsystem contains the SPMSDBG command, which displays all the data structures of the system, and the SPMSSCHD command, which examines or defines the schedule of SPMS events.

Note: This tool is intended for the Tier II user.

STORDBG

The STORDBG tool debugs problems concerned with store allocation and deallocation. Following are functions STORDBG provides:

- modifies the functionality of the store allocator audit process
- enables and disable block buffering
- displays vast area header table
- allocates and deallocates a free block of store
- detects the presence of a “store gobbler”

This tool is part of the STRDBGSB subsystem, and is implemented in the STORDBG module.

STORECTX

The STORECTX tool is used to monitor deallocations of DSTEMP store to detect “store tramplers” that deallocate a block of store and continue to attempt to write to that address.

This tool is part of the STORSUB subsystem and contains the store statistics collection and display utility. It is implemented in the STORECT and STORECTX modules.

Note: This tool is intended for the Tier III user.

SYSAUDC

The SYSAUDC tool turns on and off, or changes the frequency of system audits. It can also be used to query the state of system audits.

This tool is part of the AUDCISUB subsystem and is implemented in the SYSAUCD module.

CAUTION
Use with care.
Changing the system audit frequencies can be highly dangerous depending on the audit affected.

Note: SYSAUDC is a Tier II tool.

SYSCT utility

The SYSCT utility monitors scheduler and input/output events.

This tool is part of the SYSCTSUB subsystem, which contains the system monitor. It is implemented in modules SYSCT and SYSCTD.

Note: This tool is intended for the Tier III user.

TABUSAGE

The TABUSAGE command is used to display or change an old table control table's tuple used count.

This tool is part of the TABCISUB subsystem, which contains table manipulation commands.

Note: This tool is intended for the Tier III user.

TAPE

The TAPE tool contains the commands used for manipulating a tape drive.

The TAPE tool is part of the TAPECOMS subsystem, and is implemented in the TAPE module.

CAUTION
TAPE can be a very dangerous tool
Damage may occur if the user is not aware of the potential problems that may be caused by using some of the options in this command.

Note: This tool is intended for the Tier III user.

TCPCIP

This tool is part of the INETOOLS subsystem.

TCPPACI

This tool does a performance analysis of the TCP protocol and reflects data about activities such as CPU consumption and data rates.

TCPPACI is implemented in the TCPPAUI module.

TCPTRACE

The TCPTRACE is used for tracing transmission control protocol (TCP) packets.

The TCPTRACE tool is part of the IPTRCSUB subsystem and is implemented in the TCPTRACE module.

TESTMBLK (test metering blocks)

The TESTMBLK tool is used when working with the line software meter blocks. Some commands display the values, and some commands alter the values in the meter blocks. This tool is part of the TESTMBLK module.

This tool is part of the METCISUB subsystem, which deals with test CI procedures for metering.

CAUTION
Use with care.
TESTMBLK should not be used in the field. The MTRTEST tool should be used instead. TESTMBLK commands may corrupt the metering system badly. Use them at your own risk.

Note: This tool is intended for the Tier III user.

TESTMSA

TESTMSA is a stand-alone test tool that will print a list of all of the mobile serving areas (MSA) on the MTX switch with all the cells in each MSA.

This tool is part of the MTXTLSUB subsystem and is implemented in the module TESTMSA.

TESTMSR

TESTMSR is a stand-alone test tool that prints a list of the Mobile Serving Regions (MSR) on the MTX switch. The tool lists all MSAs within each MSR and the paging map for each ICP cell in that mobile service area (MSA).

This tool is part of the MTXTLSUB and is implemented in the TESTMSR module.

TESTTRD

TESTTRD is a stand-alone test tool that allows the user to add or delete a transient roamer from the transient roamer database. The user can print the contents of the transient roamer database.

TESTTRD is part of the MTXTLSUB subsystem and is implemented in the TESTTRD module.

TMIP (transactor message inject process)

The TMIP tool is a PMIST CI increment that performs symbolic message injection of transaction processing system (TPS) messages.

This tool is implemented in the following modules:

- TMIPINIT
- TMIP
- PMISTPRT
- PMSTTYIP

This tool is part of the MTSPMIST subsystem, which contains the PMIST display procedure for the message transport system (MTS). This subsystem allows the user the ability to intercept TPS messages trapped by PMIST.

Note: This tool is intended for the Tier III user.

TMTMAPCI

TMTMAPCI provides the capability to set the LOG field of all the tuples in Table TMTMAP to yes.

This tool is part of the FLMSUB subsystem and is implemented in the TMTMAPCI module.

TMTMAPCI is part of the TPSTOOLS, which contains the TPS application debug tools.

TPS (transaction processing system)

The TPS tool, found in the TPSQUERY module, displays internal transaction processing system (TPS) information, primarily for debugging TPS as opposed to its applications. The types of information displayed are structures that TPS uses to manage the applications.

This tool is part of the TPSTOOLS subsystem, which contains the TPS application debug tools. The following modules, which also reside in TPSTOOLS, are used for testing the TPS tool itself:

- NILPRO
- TESTCLAS
- TESTMODL
- TESTTACT

Note: This tool is intended for the Tier III user.

TPSMON (TPS monitor)

The TPSMON tool provides debugging facilities for collecting information on running applications in TPS. It is used to display the current status of TPS applications, to trace the input and output messages for a given set of TPS applications, to inject messages into the TPS system, to intercept messages bound for a given set of TPS applications, and to stop a specific application.

The TPSMON tool is made up of the following modules:

- TPSMHDIR
- TPSMON
- TPSMUTIL

This tool is part of the TPSTOOLS, which contains the TPS application debug tools.

Note: This tool is intended for the Tier III user.

TPSMHDLR

TPSMHDLR implements a handler process for TPSMON. It responds to requests from TPSMON to collect and store messages on application buffers for inspection by TPSMON.

TPSQINFO

This tool was created in response to a request from field support when Digital Trunk Carriers (DTC) were going system busy and the system stopped communicating with the Distributed Data Manager (DDM). TPSQINFO is a TPSTOOL that outputs information about various TPS

queues. The tool can be used in the field to gather information about suspected TPS queue problems.

TPSQINFO resides in the subsytem TPSTOOLS and is an increment of CIPROC. Help is available from the CI level of the module.

TRKINVI

This tool is part of the TKINVSUB subsystem.

TRKQ

The TRKQ tool rebuilds the idle queue for a given trunk group CLLI. If no CLLI is provided, all trunk group idle queues are rebuilt.

This tool is part of the TRUNKQ subsystem, which contains the reconstruction of trunk idle queue. The purpose of this module is to provide the nonresident CI rebuild TRKQ.

CAUTION
This module is not intended for field use
TRKQ should only be used in the lab.

Note: This tool is intended for use by Tier II personnel.

TTRCI

TTRCI is a tool that allows the user to dump the contents of DIRP files produced by the trunk trouble report format (TTRF) feature to a printer. TTRF formats and outputs to file the reports generated by automatic trunk testing (ATT). The content, but not the form, is the same as that contained in the ATT log reports. The contents of a file may be dumped in either character or hex form. The tool is useful in dumping a file which the downstream system failed to collect and in examining the contents of a TTRF file in order to debug downstream data collection software.

This tool is part of the TTRNRSUB subsystem and is implemented in the TTRCI module.

Note: This tool is intended for Tier I personnel.

UACGCI

The module UACGCI uses the command N00ACG to display information associated with an N00 number in the Automatic Code Gapping control table. The tool verifies that the table has been written or edited correctly. UACGCI is part of the UACGCISB subsystem and is implemented in the module UACGCI.

UDB250TS

The UDB250TS module contains commands for testing the call processing interface.

This tool is part of the UNSGDBTS subsystem, which contains nonresident test tools.

Note: This tool is intended for Tier III personnel.

UDP (user datagram protocol)

The UDP tool is used for debugging user datagram protocol implementation.

This tool is part of the INETOOLS subsystem, and is implemented in the following modules:

- UDPCI
- UDPCIP

UNEKTEST

This tool is part of the UNSGDBTS subsystem, which contains nonresident test tools. It contains the DB250TST and NEKTEST commands.

UNITCCI

UNITCCI allows the user to modify Table UNITCTRL. This table controls a feature use.

It is part of the NONRUNTC subsystem and is implemented in the UNITCCI module.

VCDRFMT (variable call detail recording format)

This tool is used for testing multiple variable call detail recording (VCDR) formats, including datafilling a second format and producing VCDR records in different formats per customer group, as assigned in Table CUSTVCDR. This is an SL100 billing system and is used only in the private network.

This tool is part of the VCDRTSUB subsystem and is implemented in the VCDRFMT module.

VIDCI

The VIDCI tool reads and writes to the tables involved with VIDs.

This tool is part of the VIDCISUB subsystem, which is the VID mapping subsystem. It is implemented in the VIDCI module.

Note: VIDCI is intended for use by Tier III personnel.

VPSCMCI

The VPSCMCI tool allows the user to monitor the call processing load and resource states of the Voice Processing Unit (VPU) peripherals. The VPU is used by the TOPS ADAS (Automated Directory Assistance Service) application.

This tool is implemented in the VPSDBGUI module.

WORKPROC

WORKPROC is a utility used by tools to complete tasks in the background. This utility allows a tool to hand over a time consuming task to WORKPROC which then creates a process to perform that task.

WORKPROC is part of the WORKSUB subsystem and is implemented in the following modules:

- GSFTRACE
- MSGTRACE
- PGMTLAB
- PGMTRACE
- PREXCT
- PREXCTUI
- STRKBASE
- TCBASECI
- TCTIMECL
- TCUSER

XDISK

XDIST is a data recovery tool. It fixes corruption on a volume. It can be used to rebuild a user file, VTOC file, the space file, and the volume label.

This tool is part of the DSKDBSUB subsystem, which contains the disk debug commands and subcommands.

CAUTION
Misuse of XDISK can cause serious damage to the file system
Detailed knowledge of the IOC disk resident data structures is required to use this tool correctly.

Note: XDISK is intended for the Tier I user.

XPMSWACT

The XPMSWACT tool turns the warm SWACT capability on or off for the entire office. A restart reload turns the warm SWACT capability back on.

This tool is part of the XPMSWCT subsystem and is implemented in the XPMSWACT module.

XRTSDMUI, XRTSDTCI AND XRTSTDUI modules

Collectively, these modules compose a designer test tool for the TRMS messaging system. This system supports messages between the CM and the FP as well as between multiple FPs. The message system is a basic part of the Update Distribution Software.

XRTSMTCI and XRTSRPSI modules

These modules, together, constitute a table display tool. This tool displays the contents of in-memory tables with complicated structures for purposes of debugging.

XSDEBUG

XSDEBUG is a CI debugging tool that displays various data structures for the dual operating system, Support Operating System/SuperNode UNIX, (SOS/SNIX).

This tool is part of the XSTOOLS subsystem.

XSIPTEST

XSIPTEST is a CI test tool used to test the dual operating system support for IP messaging between the SOS and foreign IPs. This tool should be used in combination with INETEST.

This tool is part of the XSTOOLS subsystem.

XSLOADER

XSLOADER is a CI test tool that can be used to reload SNIX kernel and SNIX ram disk.

This tool is part of the XSTOOLS subsystem.

XSTRACER

XSTRACER is a CI debugging tool that can trace an interrupt level of the dual operating system SOS/SNIX.

This tool is part of the XSTOOLS subsystem.

XSUTCOM

XSUTCOM is a CI testing tool that can be used to control the SNIX operating system without MAPCI interface.

This tool is part of the XSTOOLS subsystem.

YOPRDISP

YOPRDISP is the module that implements the stand-alone test tool POSDISP. This tool allows the user to display TOPS position data at the MAP.

POSDISP is part of the module TOPSTOOL.

ZAPMTRS

The ZAPMTRS tool reallocates all the meter blocks and sets the meter counts to zero.

This tool is part of the METCISUB subsystem and the ZAPMTRS module. The subsystem deals with test CI procedures for metering. This subsystem contains a command for printing the meter billing file and for testing and manipulating meter blocks.

CAUTION
Very dangerous tool
ZAPMTRS should only be used in the lab. It should never be used in the field.

List of terms

ABI

Attribute Based Internetworking

ACD

alarm control and display; Automatic Call Distribution

ACDMIS

Automatic Call Distribution Management Information System

ADAS

Automated Directory Assistance Service

APU monitor

Advanced Services Application monitor is an application that monitors call processing activity.

ARP

Advanced Resolution Protocol

ATT

automatic trunk testing

Automatic Call Distribution (ACD)

A set of Meridian Digital Centrex features that assigns answering priorities to incoming calls and then queues and distributes the calls to a predetermined group of telephone sets designated as agent positions.

Automatic Call Distribution Management Information System (ACDMIS)

A management information system that allows a downstream processor to request and assemble ACD information.

batch change supplement (BCS)

A DMS-100 Family software release.

BCS

batch change supplement

BCSMON

BCS monitor

BCS monitor (BCSMON)

A nonmenu command utility that reports the number of datafilled CLASS lines and the extent of CLASS feature penetration.

Bell Communications Research (Bellcore)

A group responsible for coordinating Bell operating company projects and setting guidelines for a switching system.

Bellcore

See Bell Communications Research.

Bell-Northern Research (BNR)

Part of the tricorporate structure consisting of Bell Canada, Northern Telecom, and Bell-Northern Research.

bilingual man-machine interface (BMMI)

BMMI

Bilingual man-machine interface

BMS

Buffer management system

BNR

Bell-Northern Research

call

In a DMS switch, any demand to set up a connection through the switch. Also used as a unit of telephone traffic. Also known as a cue.

Call Detail Recording (CDR)

A system that collects and records data on all calls processed by the DMS switch. CDR data is stored on a recording device, and is used to compile studies on traffic and equipment service, division of revenue, engineering, and fraud.

call processing (CP)

The software that handles the processes involved in setting up connections through the DMS-100 Family network between calling and called parties.

CC

central controller

CCITT No. 7 Signaling (N7)

A standardized out-of-band (common channel) signaling system that is suitable for terminal working (inside the same world zone) and transit working (between world zones). N7 normally uses a 64-kb/s transmission rate and occupies one slot in a pulse code modulation system. This signaling system is designed for digital networks. N7 is sometimes called CCS7 or SS7, but these abbreviations also can refer to national signaling variations.

CCS7

common channel signaling 7

CDR

Call Detail Recording

cell site controller (CSC)

A peripheral module that acts as an interface between a mobile telephone exchange and radio equipment at the cell site.

central processing unit (CPU)

The hardware unit of a computing system that contains the circuits that control and perform the execution of instructions.

central side (C-side)

The side of a node that faces away from the peripheral modules and toward the central control. Also known as control side. *See also* peripheral side.

CI

command interpreter

CLLI

common language location identifier

CM

computing module

command interpreter (CI)

A component in the Support Operating System (SOS) that functions as the main interface between machine and user. Its principal roles include the following:

- reading lines entered by a terminal user
- breaking each line into recognizable units
- analyzing the units
- recognizing command-item numbers on the input lines
- activating these commands

common channel signaling 7 (CCS7)

A digital message-based network signaling standard defined by the CCITT that separates call signaling information from voice channels so that interoffice signaling is exchanged over a separate signaling link.

common language location identifier (CLLI)

A standard identification method for trunk groups in the form:

aaaa bb xx yyyy

Where:

aaaa=City code
bb=Province or state code
xx=Trunk group identifier
yyyy=Trunk number

CP

call processing; circuit pack; control processor

CPU

central processing unit

CRM

Central Resource Manager

CSC

cell site controller

C-side

central side

CSR

call service report

DDM

Distributed Data Manager

DDU

disk drive unit

Device Independent Recording Package (DIRP)

Software that automatically directs data from the various administrative and maintenance facilities to the appropriate recording devices.

digital modem

A transmission device that converts data received from the central controller to a digitized frequency shift keying data format for transmission and display on the International Traffic Operator Position System (ITOPS) visual display unit (VDU).

Digital Multiplex System (DMS)

A central office (CO) switching system in which all external signals are converted to digital data and stored in assigned time slots. Switching is performed by reassigning the original time slots.

DIRP

Device Independent Recording Package

disk drive unit (DDU)

Consists of a disk drive and a power converter card installed in an input/output equipment (IOE) frame.

DMCT

Deny Malicious Call Termination

DMS

Digital Multiplex System

DMS-100

A member of a family of digital multiplexed switching systems. The DMS-100 is a local switch. *See also* DMS-100 Family of switches.

DMS-100 Family switches

A family of digital multiplexed switching systems, which includes the following: DMS-100, DMS-100/200, DMS-100 switching cluster, DMS-100 switching network, DMS-200, DMS-250, and DMS-300.

DTC

Digital Trunk Carrier

ENET

Enhanced Network

Enhanced Network (ENET)

A channel-matrixed time switch that provides pulse code modulated voice and data connections between peripheral modules (PM). ENET also provides message paths to the DMS-Bus components.

ERV

enhanced roamer validation

ESRM

Enhanced Services Resource Manager

FP

file processor

FSM

Finite state machine

FTFS

Fault tolerant file system

FTP

File Transfer Protocol

HDLC

High Level Data Link Control

IBN

Integrated Business Network

ICMP

internal control message protocol

ILM

Integrated Link Maintenance

input/output controller (IOC)

An equipment shelf that provides an interface between up to 36 I/O devices and the central message controller (CMC). The IOC contains a peripheral processor (PP) that independently performs local tasks, thus relieving the load on the CPU. *See also* IOC shelf.

Integrated services digital network (ISDN)

A set of standards proposed by the CCITT to establish compatibility between the telephone network and various data terminals and devices. ISDN is a fully digital network, in general evolving from a telephone integrated digital network. It provides end-to-end connectivity to support a wide range of services, including circuit-switched voice, circuit-switched data, and packet-switched data over the same local facility.

IOC

input/output controller

IP

Internet Protocol

ISDN

integrated services digital network

ISDN user part (ISUP)

A common channel signaling 7 (CCS7) message-based signaling protocol that acts as a transport carrier for ISDN services. The ISUP provides the functionality in a CCS7 network for voice and data services.

ISN

Information Services Network

ISUP

ISDN user part

JNET

Junctored Network

Junctored Network (JNET)

A time-division multiplexed system that allows for switching of 1920 channels per network pair (fully duplicated). Additional channels are established through the use of external junctors, internal junctors, and a digital network interconnecting (DNI) frame. Channels then can be routed directly, or use alternate routing, through the use of junctors, a DNI frame, and software control. Capacity for a DMS-100 switch is 32 network pairs or 61 440 channels (1920 channels $\times$ 32 network pairs).

killer trunks (KT)

A resident tool that detects, either manually or automatically, any trunks which have at least one of the following properties:

- killer trunk – a trunk that is repeatedly seized but is not held
- slow release trunk – a trunk that has a low attempt rate coupled with a high usage

- always busy trunk – a trunk that has zero attempts and is busy during the whole report interval
- always idle trunk – a trunk that has a usage of 0 CCS and zero attempts

KT

Killer trunks

LCC

line card carrier; line class code; line control card

LDDM

Local Distributed Database Management

LEN

line equipment number

line class code (LCC)

An alphanumeric code that identifies the class of service assigned to a line.

line control card (LCC)

A card in a Remote Line Concentrating Module (RLCM) that provides an interface between the RLCM and host office equipment.

LIM

link interface module

LM

line module

LQPM

Local Query Processing Management

LTC

line trunk controller

LTID

logical terminal identifier

LTP

line test position

mailbox

A software resource allocated for receiving messages for the support operating system.

maintenance and administration position

See MAP.

MAP

Maintenance and administration position. A group of components that provides a user interface between operating company personnel and the DMS-100 Family switches. The interface consists of a visual display unit (VDU) and keyboard, a voice communications module, test facilities, and special furniture.

message (MSG)

The unit of information transfer between nodes in the DMS-100 switch. A message is incoming if it is sent from a peripheral to the central control (CC) and outgoing if it is sent from the CC to a peripheral. A message is a type of control mechanism used in the I/O messages of the DMS-100 Family switches. The MSG byte specifies that the information to come is a data message.

message switch (MS)

A high-capacity communications facility that functions as the messaging hub of the dual-plane combined core (DPCC) of a DMS SuperNode processor. The MS controls messaging between the DMS-Buses by concentrating and distributing messages and by allowing other DMS-STP components to communicate directly with each other.

mobile telephone service (MTS)

- Telephone service between a fixed base station and mobile vehicle stations.
- Telephone service between mobile vehicle stations and the commercial telephone network.

module

The basic building block of software structure. A module consists of interface and implementation sections.

MPC

multiprotocol controller

MS

message switch

MSA

Mobile Service Area

MSB

make set busy

MSR

Mobile Service Region

MTCNET

matrix transactor network

MTS

mobile telephone service

MTX

mobile telephone exchange

multiprotocol controller (MPC)

A general-purpose card that allows data communications between a DMS-100 Family switch and an external computer (for example, between a central office (CO) billing computer and a DMS-100 Family switch). The MPC card resides on the input/output controller (IOC) shelf. MPC card protocol software is downloaded from the DMS-100 CPU and then used to support software routines for Data Packet Network (DPN) communications.

NCP

Network Control Processor

Northern Telecom (NT)

A part of the tricorporate structure consisting of Bell-Northern Research, Bell Canada, and Northern Telecom.

NT

Northern Telecom

OM

operational measurements

ONP

One-night process

OOS

out of service

operating system

Software that manages the basic resources of a computer. *See also* Support Operating System.

operational measurements (OM)

The hardware and software resources of the DMS-100 Family switches that control the collection and display of measurements taken on an operating

system. The OM subsystem organizes the measurement data and manages its transfer to displays and records. The OM data is used for maintenance, traffic, accounting, and provisioning decisions.

packet handler (PH)

The CCITT term for the component of an ISDN switch that provides packet switching services.

peripheral module (PM)

A generic term referring to all hardware modules in the DMS-100 Family switches that provide interfaces with external line, trunk, or service facilities. A PM contains peripheral processors (PP), which perform local routines, thus relieving the load on the CPU.

peripheral side (P-side)

The side of a node facing away from the central control (CC) and toward the peripheral modules (PM).

PH

packet handler

PM

peripheral module

procedure

In a DMS switch, a block of procedure-oriented type enforcing language (PROTEL) statements with a single entry and a single exit.

protocol

A strict procedure required to initiate and maintain communication. Protocols may exist at many levels in one network, such as link-by-link, end-to-end, and subscriber-to-switch.

P-side

peripheral side

QP

query processor

real time

The actual time during which the NT40 CPU or DMS-Core SuperNode performs its functions. The time is divided into two main categories: call processing time and noncall processing time.

remote terminal interface (RTIF)

See reset terminal interface.

reset terminal interface (RTIF)

In DMS SuperNode, a terminal used to reboot and monitor the status of the system. The RTIF can be either a local terminal or a remote terminal connected through a modem. Also known as remote terminal interface.

RLM

remote line module

RMM

resource maintenance manager

RTM

ready to manufacture

RTS

return to service

SCAI

switch computer application interface

signaling transfer point (STP)

A node in a common channel signaling 7 (CCS7) network that routes messages between nodes. Signaling transfer points transfer messages between incoming and outgoing signaling links but, with the exception of network management (NWM) information, do not originate or terminate messages. Signaling transfer points are deployed in pairs. If one STP fails, the mate takes over, ensuring that service continues without interruption.

SLM

system load module

SOS

Support Operating System

SPM

Service Peripheral Module

SPMS

Switch Performance Monitoring System

Support Operating System (SOS)

The software that sets up the environment for loading and executing the application software in the DMS-100 Family switches. The SOS includes the nucleus, file system, command interpreter, and loader.

SWACT

switch of activity

switch computer application interface (SCAI)

A software base in the DMS-100 switch that allows communication between an application on a DMS switch and a remote host application over an SCAI link.

switch performance monitoring system (SPMS)

A system that monitors all areas of switch operations and creates regular reports on performance. The reports are based on a wide range of index values computed from operational measurements (OM) generated by the switch.

system load module (SLM)

A mass storage system in a DMS SuperNode processor that stores office images. From the SLM, new loads or stored images can be booted into the computing module (CM).

terminal

- The point of origination or termination in a communications network.
- Any device capable of sending information, receiving information, or both over a communication channel.
- In a DMS switch, the smallest unit of address space within the input/output (I/O) system.

terminal ID (TID)

In DMS software, the TID uniquely identifies anything on which a call can be originated or terminated.

TID

terminal ID

TOPS

Traffic Operator Position System

TPS

transaction processing system

Traffic Operator Position System (TOPS)

A call processing system made up of a number of operator positions. Each operator position consists of a visual display unit, a controller, a keyboard, and a headset.

transmission test unit (TTU)

A digital signal processor used to perform transmission measurements on DMS lines and trunks.

TTRF

trunk trouble report format

UBH

update batch handler

UP

unified processor

VCCT

A virtual circuit on an operator centralization data link

VCDR

variable call detail recordings

VID

virtual identifier

VPU

voice processing unit

warm restart

An initialization phase during which temporary storage is deallocated and cleared. Transient calls are dropped while calls in the talking state continue.

XPM

XMS based peripheral module

DMS-100 Family

TAS Nonresident Tool Listing

Technical Assistance Manual

Publication number: TAM-1001-001
Product release: BCS36 and up
Document release: Standard 10.03
Date: May 1997

Printed in the United States of America.