
CMS™ 400

Release Notes 5.1

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Warranty

The period of warranty for the CMS 400 starts on the date of sale to the original end user and extends 90 days for software and one year for hardware. Refer to RACAL-DATACOM, INC. LIMITED WARRANTY for details.

Racal-Datacom requires a Return Material Authorization (RMA) prior to the return of any equipment under the provisions of the warranty. Please contact your authorized reseller or the nearest Racal support center for details.

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Table of Contents

CMS 400 Version 5.1 Release Notes

General Information	1
Upgrading your CMS 400 System	1
Upgrading CMS 400 Microsoft Windows Workstations	1
Using the README.DOC FILE	2
Documentation Enhancements	2
CMS 400 Version 5.1 Feature Enhancements	3
Effects of Racal API (PMA)	3
Sites and Groups	3
Monitor Analog	3
Monitor EIA	3
Test Unit	3
Configure DAP	3
DAP Control	3
System Keys	4
New Unit Types	4
PSM to Product Support Cross Reference	5
CMS 400 Release 5.1 New Functionality	5
Alarm Support	5
6456 DAP Support	6
Alarm Handler	6
ALM3223/39 unit	6
Alpha IV	6
Big Picture	6
CMS Component Map	7
DAP 4000 Application	7
DAP strap tables	7
Database Support	7
DataMate Support	7
Define MIB	7
Define Users	7
Draw Network	8
DRS Control	8
E1 ISX 5312/14	8
Event Report	8
Event Codes	8
Export Database	8
FastFrame 300/600 Support	9
FastFrame Traps	9
File Services	9
Find Unit	9
ISX5010 Cage View	9
ISX5312 and ISX5314 Support	10
INX CAU Support	10

Leased Line	10
Monitor EIA Function.....	10
Monitor Multiplexer.....	10
Monitor Users.....	11
Network Map Application.....	11
New Status Messages.....	11
Privilege Control	11
RMD1690 Control	11
Serial Number Scan application.....	11
SNMP DAP MIB	11
Strap Unit	11
SNMP Control.....	11
Trap Support.....	12
User Privileges	12
V.34 IDBU	12
Year 2000 Enhancements.....	12
CMS 400 Version 5.0 Problems Addressed.....	13
3222 Control, Front Panel Emulation	13
Alpha IV unit.....	13
ALM 3223 or ALM3239 units will not accept the strap changes.....	13
Background polling for some units stopped.....	13
Cannot print to HP 850C Deskjet printer from CMS 400 workstation.....	14
Collapsed Hub under Windows 95 with PCTCP OnNet.....	14
Channel Mapping Function.....	14
CMS 400 System Crashes	14
Define Site application.....	14
DrawNet	14
Excalibur T1 CSU channel map.....	15
Front Panel Masking on the screen does not reflect the actual status of the unit.....	15
ISX5010 Chassis View display cannot execute the Trunk option	15
Incoming Alarms.....	15
ISX unit types.....	15
ISDN DBR	15
OM8000 Console application.....	15
Problem with Hub and the Workstation when using File Services Upload or Download.....	16
Remote Omnimode unit via a VDM (minimal VDM).....	16
Speed Control function reported erroneous dial backup port speeds of zero.....	16
Strap Unit application.....	16
Workstation Using Windows NT.....	16
FTP's Secure Client v3.0 for Windows 95 does not provide the OnNet/PCTCP System Call API	18
Operating Environment Impact.....	18
Command Line Support	19

CMS 400 Version 5.1 Release Notes

General Information

CMS 400 Version 5.1 is a maintenance release that rolls up all bug fixes and Product Support Modules (PSM's) released for native CMS 400 applications since CMS 400 release 5.0. It also includes year 2000 support and any additions required to support PMA (Portable Management Architecture) applications via the Racal API.

The major functionality enhancement for CMS 400 version 5.1 is the Year 2000 Compliance. To summarize, the term "Year 2000 Compliant" means that a particular system properly handles all date input, output and manipulation regardless of whether it is before, during or after the year 2000. Year 2000 Compliance also addresses the issue of leap year calculations, since the year 2000 is a leap year.

The Upgrade Kit provides information concerning the installation of CMS 400 and lists the new CMS 400 documentation applicable for the 5.1 Release.

Upgrading your CMS 400 System

Use the following command to upgrade the CMS 400 System on your disk. This command also optionally updates your AUTOEXEC.BAT and CONFIG.SYS files in your root directory with files that are configured for the CMS 400 System. The instructions assume that the distribution disk resides in the A: drive. If your system is different (i.e., B:, etc.), substitute the appropriate disk drive letter. To restore the original AUTOEXEC and CONFIG files, copy the .BAK version to AUTOEXEC.BAT and CONFIG.SYS files.

Insert the distribution disk labeled "number 1" into Drive A and copy the files from the disk by typing:

```
A:INSTALL [ENTER]
```

Now follow the instructions that appear on the screen. For additional information on installation procedures, refer to your *CMS 400 Installation Manual*.

Your CMS 400 database and options will **NOT** be affected by performing this upgrade.

Upgrading CMS 400 Microsoft Windows Workstations

The following procedure allows you to upgrade up to 16 operator workstations on your CMS 400 System.

Note: The CMS 400 System no longer supports Microsoft Windows 3.x. You must upgrade to Microsoft Windows 95 or Windows NT.

1. Insert the CMS 400 MS Windows Workstation Setup disk into Drive A.

2. Choose Run from the Start Button and type:
A:\SETUP [ENTER]

A message is displayed indicating that the installation is in progress.
3. Follow the procedures in the wizard. The system prompts you for the appropriate tasks.
4. When the install is complete, remove the disk from the disk drive.

Using the README.DOC FILE

The README.DOC file is designed to notify you of new information such as enhancements, new options, or modules to the CMS 400 software. It also describes any new procedures developed since the manual was printed.

To view README.DOC on the floppy disk, click on the Readme Icon.

If a printer is attached, you may obtain a hard copy of this file by selecting Print from the File menu:

Note: By pressing [F1], the on-line Manual is displayed. It contains the most current information on features.

Documentation Enhancements

The following list contains the new documentation that replaces the old documentation:

- CMS 400 Release Notes 5.0, Doc. No. 13D26A-32/E
- CMS 400 Installation Manual, Doc. No. 13D26A-14/G
- CMS 400 User's Guide, Doc. No. 13D26A-7/E
- CMS 400 Reference Manual, Doc. No. 13D26A-10/H
- CMS 400 Leased Access Manager User's Guide, Doc. No. 13D27A-7/E
- CMS 400 Dial Access Manager User's Guide, Doc. No. 13D30A-7/E
- CMS 400 ISDN Manager User's Guide, Doc. No. 13D38A-7/E
- PremNet 5000 SNMP Manager for Windows User's Guide, Doc. No. 13D475A-7/B
- Excalibur SNMP DAP Manager for Windows User's Guide, Doc. No. 13D471A-7/C
- Excalibur ISX 5300/2500 Manager for Windows User's Guide, Doc. No. 13D473A-7/D
- FastFrame 200 Installation and Operation Manual, Doc. No. 15D24A-1/D

CMS 400 Version 5.1 Feature Enhancements

The following information pertains to enhancements made in the release of CMS 400 Version 5.1. The feature enhancements, function changes, and problems addressed since 5.0 are described here.

Effects of Racal API (PMA)

- The following are changes to applications that are a result of moving to the new Racal API. This topic highlights the differences from the more “traditional” (legacy) CMS applications. The applications written to the Racal API are the SNMP supported ISX53xx/2500, FastFrame, SNMP Excalibur DAP (including SNMP 6456), and SNMP PremNet.

Sites and Groups

- With the new Racal API design sites and groups not necessary. All Racal API applications work with individual units.

Monitor Analog

- This function is a common application used to monitor the analog ports on the ISX, DAP, and FastFrame. The new Racal API allows you to work on one unit at a time. You cannot monitor several units at once as with the legacy function, but you can open several application windows at once.

Monitor EIA

- This function is a common application used to monitor the EIA ports on the ISX, DAP, and FastFrame. The new Racal API allows you to work on one unit at a time. You cannot monitor several units at once as with the legacy function, but you can open several application windows at once.

Test Unit

- This application is used to perform tests upon the ISX, DAP, and FastFrame. It now only works on one unit at a time. The new Racal API allows you to perform tests on one unit at a time. You can also open several application windows at one time.

Configure DAP

- This application is used to configure the SNMP DAP and the DAP 6456. It now incorporates the functionality previously found in the Speed Control and Set Thresholds applications which are now obsolete. It is based on a ‘wizard’ type application. The new Racal API allows you to work on one unit at a time. You can set the port speeds to downstream units by opening a separate application window.

DAP Control

- This application is used to control the SNMP DAP and the DAP 6456. This application replaces the Control Unit application.

System Keys

- The Options->System Settings menu item is changed to allow you to input option keys. You are shown a tabbed dialog box and a new tab called System Keys. When you select this tab you can enter in the key for an application family, i.e. FastFrame, Excalibur DAP, etc. The key entered is the one written to the registry for individual applications to use/check.

New Unit Types

The following are new devices supported in Release 5.1 of the CMS 400 System:

- SNMP 6456
- DAP with V.34
- PremNet ATM I/O
- PremNet Branch
- PremNet Ethernet MAC Filtering
- PremNet ATM OC-3 Link
- FastFrame 600 R4.0
- FastFrame 600 R4.01
- FastFrame 300 R4.01
- FastFrame 600 R4.1
- FastFrame 300 R4.1
- FastFrame 200 R3
- ALM 3268 Statistics and Traffic Enhancements
- ISX5312/14 T1
- ISX 5312/14 E1
- ISX5312/14 T1 DBU (Includes ISX Maintenance Release)
- DataMate
- ISX5010/5314 CS T7 Support for Reuters

PSM to Product Support Cross Reference

This table shows what devices are in each product support module in Release 5.1 of the CMS 400 System:

PSM Number	New Device Support
50_01	SNMP 6456 & DAP with V.34 enhancements
50_02	Not used
50_03	PremNet ATM I/O, Branch & Ethernet MAC Filtering, ATM OC-3 Link
50_04	Not used
50_05	FastFrame 600 Release 4.0, 4.01 and, 4.1; FastFrame 300 Release 4.01 and 4.1; FastFrame 200 Release 3
50_06	Not used
50_07	ALM 3268 Statistics and Traffic Enhancements
50_08	Not used
50_09	Not used
50_10	ISX5312/14 T1, ISX 5312/14 E1 & ISX5312/14 T1 DBU (and ISX maintenance release)
50_11	Obsolete (was FastFrame 200 Release 3 now use 50_05)
50_12	Obsolete (was ISX5312/14 T1 now use 50_10)
50_13	DataMate
50_14	ISX5010/5314 CS T7 Support for Reuters

CMS 400 Release 5.1 New Functionality

The following information contains functionality changes that have been addressed in the release of CMS 400, Version 5.0.

Alarm Support

New system alarms:

- **AON** (Access On)
- **BAN** (Bandwidth Change)
- **CON** (Connect)
- **DLE** (Data Link Error)
- **ELF** (Event Nearly Full)
- **ELO** (Event Log Overflow)
- **FAT** (Pattern Not aligned)
- **MIR** (Rx Pulses Fault)
- **NOA** (No Access)
- **OCD** (Out Call Detect)
- **RFS** (Network Down)

- **SPD** (Invalid SPID)

New ISDN DBR alarm:

- **DLF** (Dial Line Failed)

6456 DAP Support

- The following applications have been enhanced to support 6456 DAP: Net Map, SNMP Control, Draw Network, Big Picture.
- A new unit type, 6456 DAP, has been created. The SNMP DAP option module is required for support of this unit type. In addition, a new MIB, 6456DAP, has been added to the Define MIB application for this unit type.

Alarm Handler

- The Alarm handler now properly logs the alarm parameters associated with an alarm from an ISX53XX device. The information now shows up in the event log.

ALM3223/39 unit

- When CMS400 sends the new Read command to the ALM3223/39 unit with version 2.83, the unit fails to report the "ERROR" message. This unit does not support the new R/W commands and therefore should report an error message to CMS. We have generated a fix to compensate for the unit's mishap. A new parameter called "MAIN FIRMWARE REVISION" was introduced on the first of seven pages in the ALM3223/39 strap tables. This allows you to enter the unit's revision number and store it in the database. All ALM3223/39 units in the database that contains version 2.83 must have a table associated with it. Therefore, with this association, the Strap Unit application can interrogate the selected unit's table to determine if the unit as a revision number of 2.83. If so, the Strap Unit application sends the old L/J command.

Alpha IV

- Alpha IV now works with the following applications: Big Picture, Draw Network, and Network Map.
- The Self Test function now works properly for the Alpha IV unit when spawned from the: Big Picture, Draw Network, and Network Map.
- The Masking option in the Alpha IV application now downloads the proper values to the unit.
- The Monitor function now reports the proper EIA signals for the Alpha IV units.
- The Alpha IV's TXCLK parameter values are now oriented properly.

Big Picture

- In Big Picture WPremNet was Added to the Windows applications group. You can now launch the PremNet 5000 application in the system console.
- Enhanced the Big Picture application so that it spawns the DAP 4000 application when the Test function is selected for a DAP 4000 device to make it work the same as the Network Map and Draw Network applications. Prior to this change the application reported that the device was not valid for the selected function. This was done per a request from customer AT&T.

CMS Component Map

- This application defaults to a value of 600 for the VDM Socket. In addition, a warning is posted if you attempt to change this value.

DAP 4000 Application

- Corrected a timing problem in the DAP 4000 application which was sometimes causing the application to go dormant forever waiting for a response to a T7 command.

DAP strap tables

- A comment was added for the Operating Range parameter. The following is a list of DAP strap tables that were affected:
 - EXCAL DAP SP
 - EXCAL DAP SP B
 - EXCAL DAP MP
 - EXCAL DAP MP B
- The EXCAL DAP SP B table did not have enough space for this comment, therefore an additional page was added to accommodate more room for comments.

Database Support

- Autolearn now recognizes the Singleport SNMP/T7 Multirate DAP as and Excalibur DAP SP B. (Part number 15-09C523001AC)

DataMate Support

- The Profile strap for the DataMate now allows you to select values of 0 and 1 only.
- Enhancement: Two additional straps were added to configure the DataMate unit for Lease Line Asynchronous or Lease Line Synchronous applications.
- The TX level range for the DataMate strap table has been changed to 0-15dbm

Define MIB

- Define MIB has been updated with the latest ISX5300 MIB file.
- The following MIBs were added to MIBDIR.ASM: Ethernet, OSPF, Tring and T1.
- Define MIB now includes FF300 and FF600 as valid unit types to associate with a MIB.

Define Users

- The Define Users application has been enhanced to provide a privilege control for the new DAP Control application (in support of the SNMP DAP and 6456 DAP).

Draw Network

- New selections have been added to the page sorting option in the Draw Network application. You can now choose the following for the option called Page List Sorting: **No Sorting, Alphabetical, Page Number**. This solves the problem of a sort by page number always being done if sorting by alphabetical order was disabled. Some customers do not want any sorting at all due to the sort taking too long.
- All page number fields in Draw Network are now limited to four characters in length.

DRS Control

- The DRS Control application now properly allows you to set the DAD as the clock source when backing up a remote ISDN IDBU using an ISDN DBR in a point to point circuit when data is not switched to the dial lines on connect.
- The DRS Control application now properly loads the phone number to a SW56 DBR when backing up a remote ISDN IDBU in SW56 mode. The DL1 phone number from the remote's unit record is now used.

E1 ISX 5312/14

- Channel Mapping for E1 ISX 5312/14 does not allow DTE3 or 4 as valid choices for an ISX 5314 unit.
- Strap Unit page 6 of 7 has no entry for the Hot Spare feature.

Event Report

- The Event Report function now allows a full 0-255 value to be specified in the criteria screen for the event code.

Event Codes

- The following event codes are added:
 - 10.22 Unit configuration modified by EAN6000
 - 10.23 File configuration modified by EAN6000
 - 10.24 Unit placed in data test
 - 10.25 Unit placed in raise EIA signals
 - 10.26 Loopback canceled
 - 10.27 Raise EIA signals canceled
 - 11.1 Alarm(s) deleted by display alarms
 - 19.6 Unit reset by ENAR
 - 19.7 Time set on ASET-1 chassis

Export Database

- The Export Database function now allows a full 0-255 value to be specified in the criteria screen for the event code.
- Auto Learn has been updated to recognize SNMP DAPs when connected via T7.
- Squelch Unit now displays a more informative message when squelching remote units.
- The proper configuration program for the SNMP DAP is the DAP Configuration Wizard. This is the program that will be spawned in CMS 400 version 5.1.

FastFrame 300/600 Support

- The following applications have been enhanced to support showing unique icons for the FastFrame 300/600 units: Draw Network, Big Picture, and SNMP Control.
- Trap binding text values for the FastFrame system reset trap have been corrected.
- FastFrame traps for SNA alarms now correctly report the link station address properly. It previously always reported “00”, misinterpreting the word integer value binding.
- SNMP Control now uses the term “Ping” rather than “Poll”.
- The following applications have been enhanced to support the FastFrame 300/600: Network Map, SNMP Control, Draw Network, Big Picture. In addition, two new unit types, FastFrame 300/600 can now be added to the database. These unit types appear in the Define MIB application next to the FastFrame MIB.

FastFrame Traps

Three new FastFrame traps are now supported. The traps are mapped to alarms as follows:

Trap Name	Alarm	Parameters
rdfransdclcLSHostDown	Link Down	SDLC Host-side Link Station Down Port=<interface>
rdfransdclcLSHostUp	Link Up	SDLC Host-side Link Station Up Port=<interface>
rdfransdclcLSHostDisconnect	Link Down	SDLC Host-side Link Station Disconnected Port=<interface>

File Services

- The File transfer protocol used for File Services Upload/Download has been modified by implementing packet sequence numbers and CRC-16 error checking. This should allow files to be transferred between the hub and workstation without corruption. The fix affects File Services application, the DOS legacy workstation and the MS Windows workstation.

Find Unit

- The Find Unit function in the Big Picture application now displays an error message when a unit cannot be found explaining to you why the unit was not found. The information in the message is tailored to how the option for displaying units are set, either “arbitrarily by site” or “custom by rack”. In addition, if the option for displaying units is set to custom by rack and the custom rack for the site in which the unit belongs does not exist. The function defaults to displaying the unit arbitrarily by site. This makes the Find function work the same as when zooming into a site and the custom rack file is not present.

ISX5010 Cage View

- The Trunk option in the ISX5010 Cage View display was not accessible. The overlay file for this option was too large. The overlay buffer in the root module was increased to allow the Trunk option to execute.

ISX5312 and ISX5314 Support

- Serial Number Scan has been updated to allow polling of the new ISX5312 and ISX5314 unit types.
- Define MIB has been updated with the latest ISX5300 MIB file.
- Software upgrades for the ISX5312 and ISX5314 products are supported in this release. The upgrade function can be accessed from the CSU Control application by selecting Upgrade from the second tier of the legend. The function is also accessible from the ISX5010 upgrade function by selecting the ISX5314CS software menu item (for the Reuters configuration).
- The ISX5312/5314 Legacy strap tables have been updated as follows:
- “External TX Clock” option does not apply to these units and has been removed. The “External” selection for the “Clock Priority” does not apply and has been removed. For Single DS1 5312/5314 units, the “Daisy Chain” option does not apply and has been removed.
- The ISX configuration wizard has also been updated to reflect these changes.

INX CAU Support

- Recent hardware versions of INX_CAU does not report a connectivity board type if the board is a 26 port unit. We changed the code to verify the number of SNMP port variables acquired.

Leased Line

- The DAP SP B and the DAP SET1 SP B strap tables have been updated to include the “TX Clock Source” option on the V.34 configuration page. The selections are “Receive” and “Internal”.
- The Excalibur DBU application no longer displays an improper error message when attempting to initiate DBU.

Monitor EIA Function

- Occasionally the Monitor EIA function would report a “Unit Does Not Respond” message when monitoring a DAP unit via the VDM channel. The VDM handler did not have any retry capabilities when calling PCTCP. While attempting to send a UDP packet to a busy PCTCP kernel, the kernel would reject it. Therefore, causing the VDM handler to report a fail status back to the Monitor EIA application. Now, system checks are introduced to determine if the PCTCP kernel is busy. If so, the VDM handler retries up to 10 times to the PCTCP kernel before it reports a fail status to Monitor EIA.

Monitor Multiplexer

- The Monitor Multiplexer application now properly polls both the central and remote ISX53XX devices for their interface types to determine X.21/V.11 support. The application was also enhanced to show a separator between updates and to show the paused message on the activity status line instead of on the legend. Unpausing no longer causes the entire screen to repaint.

Monitor Users

- Changed the screen refresh rate in the Monitor Users application from 10 seconds to 5 seconds.

Network Map Application

- Fixed a bug in the Net Map application which was causing it to hang when it failed to spawn another task.

New Status Messages

- Added four new status messages to the Net Map, Big Picture, and Draw Network applications for reporting why a spawn of another task failed. Previously the tasks simply repainted upon failure leaving the user with no information about why the failure occurred. The four new message are: **Insufficient Memory, Task Table Full, Task Not Found, and Unable To Spawn Task.**

Privilege Control

- Made changes to the Radius handler concerning privilege control for the FastFrame, DAP-FR, and ISX applications. Equivalent changes were also made in the corresponding CMS For Windows applications. The applications were not registering the correct name with the Hub and Radius was not able to map the name to a privilege. This prevented security control on the FastFrame and DAP-FR configurator applications. A change was also made so that the ISX strap configurator and ISX wizard configurator both register the same application name with the Hub.

RMD1690 Control

- The Factory and Soft Reset functions for RMD1690 now issues the abort command upon completion.

Serial Number Scan application

- The Legacy Serial Number Scan application supports the extended 6 byte firmware revision for the ISX5312/ISX5314.

SNMP DAP MIB

- A newer version of the SNMP DAP MIB which includes support for the V.34 IDBU is included in this release.

Strap Unit

- The Strap Unit application did not return any result string to the To6000 Handler after executing the ALM32XX strap command from the CMS6000 Command Launcher. The Strap Unit application now generates the result string to the To6000 Handler when called from the CMS6000 Network Manager. Therefore, the CMS6000 now generates a “GOOD” message if the strap function passes, a “FAIL” message if the strap function fails, and a “Command Not Executed” message if you enter an invalid command.
- The Strap Unit application now shows the CMS interface speed for ISX5312 single or dual E1 devices.

SNMP Control

- SNMP Control (F)etch no longer misinterprets large instance numbers.

Trap Support

- Changed associated trap text from “Warm Start” to “System Reset Code”.

User Privileges

Support for the changes to the user privileges is included. The changes are as follows:

- All user privileges are set from Define Users. The Windows User Privileges application is no longer used.
- If USERPRIV.DAT does not exist at bootup the Dbase handler spawns Create Database to automatically create the file.
- When USERPRIV.DAT is created automatically all existing users are copied to it including existing privileges for each.
- Define Users now maintains both USER.DAT and USERPRIV.DAT. This is done behind the scenes and the user no longer has to be aware of how the Windows privileges are stored and accessed.
- The user no longer has to create users in USERPRIV.DAT if logins are disabled. When Racal API applications request user privileges the Hub now checks to see if logins are disabled and if so, a default file (USERPRIV.BIN) is read which contains all privileges enabled. These defaults are then returned to the workstation.

V.34 IDBU

- The following applications have been enhanced to support the V.34 IDBU: Loop Unit, Speed Control, Return To Normal, Squelch Unit.

Year 2000 Enhancements

- The code modifications for CMS 400 Year 2000 Compliance have been merged into the main baseline.
- The Trouble Ticketing escalation handler has been modified to properly handle year comparisons when determining when to escalate a trouble ticket. These modifications are related to CMS 400 Year 2000 Compliance.
- The Access Multiplexer application now comes up immediately in the chassis view when spawned from another application such as Network Map or Draw Net.
- The ISX5010 chassis view in the Access Multiplexer application now checks the mode of the ISX5314CS unit that it finds to determine if it is properly set for 5010 mode. If it is not the unit will not appear in the chassis.
- The CMS 400 administrative, automation, logging, etc. features are now year 2000 compliant. Year 2000 rollover enhancements have been made. The CMS 400 works seamlessly with regard to the year 2000. Test information will be made available to satisfy customer inquiries based on conformity requirements.

CMS 400 Version 5.0 Problems Addressed

The following information contains problems in CMS 400 Version 5.0 that are addressed in CMS 400 Version 5.1.

3222 Control, Front Panel Emulation

- Penpal handling of ALM alarms. Unsolicited alarms that are appended to, but within the same frame as, a Penpal monitor response frame would not be recognized. This happened frequently when connecting to ALM chassis via VDM. The new code checks for a carriage return as a special case, and starts displaying the subsequent data on the next line.

Alpha IV unit

- The command line introduced in the parent tasks (Network Map, Draw Network, and Big Picture) were not defined properly. The parent tasks (Network Map, Draw Network, and Big Picture) did not specify the time of duration and the prompt arguments in the Self Test command line string. The destination segment (register) for the result buffer was not introduced in the code. Provide the proper Alpha IV command line to Network Map, Draw Network, and Big Picture. Introduce the DUR = n and ASK = y arguments to the Self Test command line contained in Network Map, Draw Network, and Big Picture. Provide the proper segment (register) for the result buffer. Introduce the Alpha IV's EIA signal in the Monitor EIA code.
- The generic Loop Test function was issuing redundant commands to the Alpha IV unit.
- The Alpha IV application was on the wrong pop-down menu. The Alpha IV main menu displayed the wrong front panel. An enhancement to the Alpha IV application was introduced. It provides a new Onward Link parameter for multi-tier networks running V.54 loop test. The Alpha IV unit is the mirror image of the Omnimode unit when it comes to performing a V.54 loop test from CMS. However, not all the commands issued to the Omnimodes are supported by the Alpha IV's. Remove all redundant commands issued to the Alpha IV units when executing the Digital Loop Test function.

ALM 3223 or ALM3239 units will not accept the strap changes

- All ALM3223/39 units in the database that contains version 2.83 must have a table associate it with it. Therefore, with this association, the Strap Unit application can interrogate the selected unit's table to determine if the unit as a revision number of 2.83. If so, the Strap Unit application sends the valid old L/J command for ALM units containing version 2.83.

Background polling for some units stopped

- Background polling for some units stopped. A couple of hours after bringing up the system, Penpal fails to poll units in the background. Alarms that appear invalid are misinterpreted by Penpal. Consequently, bogus alarms appear on the screen. Penpal did not provide time-slicing in the Request Queue routine. Provide time-slicing when queuing request packets. Validate alarm packets for proper length and data.

Cannot print to HP 850C Deskjet printer from CMS 400 workstation.

- When trying to print from CMS 400 workstation, the user gets an “Unable to Print” error. When doing a Printer Setup, the user gets the error message “There are no fonts installed. Run Control Panel to install Fonts”. Update MSW_WORK.EXE application with the changes that were made in patch number 42X_060 to correct this same problem. The base source code used was CMS 400 release 5.0

Collapsed Hub under Windows 95 with PCTCP OnNet

- You can PING the VDM but you cannot communicate with the device attached to they VDM. No data is sent on the network when polling the device. When using a separate Hub and Workstation, this problem does not occur. CMS MAP has been modified to allow you to set the VDM UDP port to 600, 6000 or 7000.

Channel Mapping Function

- The channel mapping function to free a range of channel mappings was not working correctly for DS1s. Only the first three component/channel fields were being updated. The code was rearranged so that the length byte is no longer wiped out.

CMS 400 System Crashes

- When configuring the second page of the General Parameters, the CMS400 system crashes. A DDM/EDM communication failure message appears when attempting to download the Dial Up T7 parameters to the unit. The mouse did not work on the second page of the General Parameters during modification. Re-assigned the pointer to the proper location in memory.

Define Site application

- Database handler was not allowing the Define Site application to seek sites while units were being sorted. For large database, the process of sorting units can take several minutes for every system boot-up depending on the size of the database. Normally, this hinders the DBASE Handler from generating the SITESORT.DAT file for the first time. Simply disregard the wait flag for unit sorting and allow the Define Site Application to seek sites while units are being sorted.

DrawNet

- Using the function, when doing a page and number the CMS 400 system sorts through the entire database alphabetically. This in turn takes an extreme amount of time to process and cannot be shut off.
- If the customer’s database is extremely big, the search routine contained in Draw Network application can take a long time to sort by order. Added an additional option in the existing legend that gives the user the option to disable the sorting feature.

Excalibur T1 CSU channel map

- There was no check in the code to determine if the type of unit being written to was the same type as the source unit. Before attempting to write the channel mappings from one unit to another, the unit types are tested. If they are equal, the write is allowed. If the unit types are different, a message is displayed telling the user that trying to write from one unit type to a different unit type is not permitted.

Front Panel Masking on the screen does not reflect the actual status of the unit

- Added a comment to let the user know that the front panel status may not reflect the actual status of the unit.

ISX5010 Chassis View display cannot execute the Trunk option

- Increase the size of the overlay buffer in the root module.

Incoming Alarms

- This problem occurred during incoming alarms. If the incoming alarms and the reply from the Read Strap function happen at the same time, it would cause the space character (ending delimiter) from the previous command to be added to the next reply. This forced the Read Strap function to report bogus data and therefore, causing the compare strap function to show differences between a defined table and the straps just read. Add a validation code for the reply during a read operation. This will ensure that any space character at the beginning of the reply is ignored.

ISX unit types

- Upon matching up a unit type with an option module, System Statistics now does further checking to see if the unit's diagnostic protocol matches the option module type before counting the unit against the option.

ISDN DBR

- When an ISDN DBR is placed into backup with an ISDN IDBU in a point to point circuit the DRS Control application always makes the DBR the master clock source regardless of the clock selection setting the user made, and regardless of whether the switch on connect option was set to "No". The function FORCE_DBR_CLOCK was changed so that it now only forces the DBR to be the master clock source for a point to point circuit when the remote unit is a SW56 IDBU or an ISDN IDBU set to SW56 mode.

OM8000 Console application

- Data on the far right-hand side of the screen would not be displayed by the OM8000 Console application. Specifically, the seconds field of the time-stamp.
- A slight delay of approximately ½ second was introduced between calls to the com port polling subroutine. The added delay allows proper synchronization within the TO8000 handler.

Problem with Hub and the Workstation when using File Services Upload or Download

- The file transfer protocol was modified to contain packet sequence numbers and CRC-16 block checking. Mis-sequenced packets are rejected, and the CRC-16 eliminates the acceptance of virtually all types of corrupted packets.

Remote Omnimode unit via a VDM (minimal VDM)

- The unit replies with an invalid frame. The unit for some reason or another appends a bogus byte after the BCC byte. This causes the VDM handler to reject the frame and report a “Target Device Does Not Respond” message. Introduce another routine that will reexamine the frame by discarding the last byte. After discarding the last byte another check for a valid BCC is performed. If valid, the frame will be acknowledged, if not, the frame will be rejected.

Speed Control function reported erroneous dial backup port speeds of zero

- As soon as a one byte reply from a DPBS command is received, the Speed Control application will stop retrieving dial backup port speeds. Consequently, any dial backup ports that are skipped will report a value of zero on the screen. Ignore the one byte reply and continue retrieving the backup port speeds.

Strap Unit application

- Strap Unit application was not interpreting the correct values of the TXCLK parameter when configuring the standalone ALM3223/39 unit. Two of the three values were transposed. However, the unit’s values did not reflect the command specification; CMS 400 had the values in the proper orientation. Transpose the values in the CMS 400 strap tables to reflect the unit. The compare strap function showed differences on two identical strap tables. The compare strap function from script did not work.

Workstation Using Windows NT

CMS 400 Windows NT Workstation Application Error displays: “not enough space for environment”.

Additional non default System or User Environment variables or Set and Path variables in the Autoexec.bat or Autoexec.nt files may cause Windows NT to display the error when starting the CMS400 Windows Workstation. This is more likely to occur for Windows NT systems configured for Dual-Boot or for systems configured with other third party applications that add additional environment variables such as compilers.

During NT startup all variables from Autoexec.bat, Autoexec.nt, and the NT System Registry “System Environment Variables”, and “Environment Variables for Current User”, are combined to create the environment.

The best solution is to reduce the number of additional variables being set. The Autoexec.bat may contain numerous Set and Path statements that are not required for any Applications installed under Windows NT. The Windows NT system registry can be modified so that the Autoexec.bat is not parsed.

Note: Be sure to backup the system registry using RDISK before performing any modifications.

To invoke the Registry Editor execute the command REGEDIT and find the following key: [HKEY_CURRENT_USER\Software\Microsoft\Windows NT\CurrentVersion\Winlogon]

- "ParseAutoexec"="1"

Change ParseAutoexec=1 to 0. Exit the REGEDIT program and restart Windows NT. Attempt to start the CMS400 Workstation. If the problem persists use the Start -> Control Panel -> System -> Environment Tab and view the System Variables and the User Variables and compare to the defaults listed below. The following bulleted items are System Environment Variables:

- ComSpec=C:\WINNT40\system32\cmd.exe
- Number_of_Processors=1
- OS=Windows_NT
- Os2LibPath=C:\WINNT40\system32\os2\dll;
- Path=C:\WINNT40\system32;C:\WINNT40
- Processor_Architecture=x86
- Processor_Identifier=x86 Family 5 Model 1 Stepping 5, GenuineIntel
- Processor_Level=5
- Processor_Revision=0105
- Windir=C:\WINNT40

The following bulleted items are Environment Variables for a Current User:

- TEMP=C:\TEMP
- TMP=C:\TEMP

Note: Eliminate any variables not required. Note that changes made are activated without rebooting the system. Engineering is currently investigating other possible solutions.

FTP's Secure Client v3.0 for Windows 95 does not provide the OnNet/PCTCP System Call API

- CMS400 LAN related functions fail to communicate with their target devices. If using Windows 95 Collapsed HUB with FTP's Secure Client v3.0 (No SNMP). A Windows 95 Collapsed HUB Console displays the "SIMPLE: Cannot Link to TCP Stack: Terminating..." message with FTP's Secure Client v3.0 for Windows 95. All other Windows 95 TCP/IP functions such as Telnet, and Ping operate as expected. The best way to fix this is to Install FTP's INT61.EXE. Published 6/24/97 (Size: 818377).

Note: To download FTP's INT61.EXE use the following URL addresses.

- <ftp://ftp.ftp.com/support/ftpsoft/onnet32/v2.0/patch/int61.exe>
- http://www.ftp.com/techsup/quick-help/by-product/sclient/sclient_patch.htm#sclient_30

Operating Environment Impact

In order for the CMS 400 to properly handle all dates, the date must be reported properly from DOS. The current version of DOS or Windows 95 works since the year range of 1980 to 2099 has been the specified format for a number of years. However, note that if a particular PC reports the date erroneously from the BIOS, DOS will be unable to report the correct date.

There are several ways of insuring that the date in the system's OS clock is correct.

1. The **simplest method** is to run the systems **setup** program on January 1st of the year 2000, and set the system date to 1/1/2000. After rebooting, ensure that the DOS or Windows 95 date is correct before starting HYDRA.
2. Also, according to the Dell report, you may be able to use the **DOS DATE command** to update the system clock.
3. Some systems, in particular the Dell systems of the past 2 years, properly handle the century rollover automatically.
4. Within the near future, it is expected that the major OSs will be updated to handle the century rollover. However, we do not expect an update for DOS.
5. There are several programs available, and one specifically available from the Dell web site, that can be run in order to adjust the system's century value.

Please refer to the Dell web site for specific information about the Dell PC hardware platform.

Command Line Support

Command line arguments are not directly affected by the Year 2000 Compliance code modifications. However, it should be noted that several applications use the DAT= and DA2= command line arguments. These arguments are given in the form DAT= xx/yy/zz where xx is the month, yy is the day and zz is the year. The year 2000 is represented as "00".

The following applications use the date command line arguments. They provide reports or event listings which can be filtered by the use of selection criteria, including the start and end dates.

- **300_BAR** - uses report date criteria
- **300_EXC** - uses report date criteria
- **300_EXP** - uses report date criteria
- **ACC_MUX** - uses date criteria for History Report
- **EVT_REP** - uses report date criteria
- **NEWMAY** - when spawned by **ALARM**, gets date of alarm in **DAT=** parameter (not for user interface)

