Cisco Prisma II Platform
Configuration Guide

For Your Safety

Explanation of Warning and Caution Icons

Avoid personal injury and product damage! Do not proceed beyond any symbol until you fully understand the indicated conditions.

The following warning and caution icons alert you to important information about the safe operation of this product:

You may find this symbol in the document that accompanies this product. This symbol indicates important operating or maintenance instructions.

You may find this symbol affixed to the product. This symbol indicates a live terminal where a dangerous voltage may be present; the tip of the flash points to the terminal device.

You may find this symbol affixed to the product. This symbol indicates a protective ground terminal.

You may find this symbol affixed to the product. This symbol indicates a chassis terminal (normally used for equipotential bonding).

You may find this symbol affixed to the product. This symbol warns of a potentially hot surface.

You may find this symbol affixed to the product and in this document. This symbol indicates an infrared laser that transmits intensity-modulated light and emits invisible laser radiation or an LED that transmits intensity-modulated light.

Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

Notices

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Contents

Prisma II Product Notices

System Release

The information in this guide pertains to Prisma II Platform.

Operating Temperature

CAUTION:

The warranty may be voided and the equipment damaged if you operate the equipment above the specified temperature limits (131°F/55°C for post-amplifiers, 149°F/65°C for other products). Specification temperature limits are measured in the air stream at the fan tray inlet and may be higher than room ambient temperature.

CAUTION:

Do not operate post-amplifiers at air inlet temperature above 30°C for extended periods or repetitively. Extended or repetitive operation above 30°C will reduce amplifier useful life and increase amplifier failure rate.

Important Safety Instructions

Read and Retain Instructions

Carefully read all safety and operating instructions before operating this equipment, and retain them for future reference.

Follow Instructions and Heed Warnings

Follow all operating and use instructions. Pay attention to all warnings and cautions in the operating instructions, as well as those that are affixed to this equipment.

Terminology

The terms defined below are used in this document. The definitions given are based on those found in safety standards.

Service Personnel - The term *service personnel* applies to trained and qualified individuals who are allowed to install, replace, or service electrical equipment. The service personnel are expected to use their experience and technical skills to avoid possible injury to themselves and others due to hazards that exist in service and restricted access areas.

User and Operator - The terms *user* and *operator* apply to persons other than service personnel.

Ground(ing) and Earth(ing) - The terms *ground(ing)* and *earth(ing)* are synonymous. This document uses ground(ing) for clarity, but it can be interpreted as having the same meaning as earth(ing).

Electric Shock Hazard

This equipment meets applicable safety standards.

WARNING:

To reduce risk of electric shock, perform only the instructions that are included in the operating instructions. Refer all servicing to qualified service personnel only.

Electric shock can cause personal injury or even death. Avoid direct contact with dangerous voltages at all times. The protective ground connection, where provided, is essential to safe operation and must be verified before connecting the power supply.

Know the following safety warnings and guidelines:

- Dangerous Voltages
  - Only qualified service personnel are allowed to perform equipment installation or replacement.
  - Only qualified service personnel are allowed to remove chassis covers and access any of the components inside the chassis.
- Grounding
  - Prisma II equipment is suitable for installation as part of the common bonding network (CBN).
  - Do not violate the protective grounding by using an extension cable, power cable, or autotransformer without a protective ground conductor.
  - Take care to maintain the protective grounding of this equipment during service or repair and to re-establish the protective grounding before putting this equipment back into operation.

Installation Site

When selecting the installation site, comply with the following:

- **Protective Ground –** The protective ground lead of the building's electrical installation should comply with national and local requirements.
- **Environmental Condition –** The installation site should be dry, clean, and ventilated. Do not use this equipment where it could be at risk of contact with water. Ensure that this equipment is operated in an environment that meets the requirements as stated in this equipment's technical specifications, which may be found on this equipment's data sheet.

Installation Requirements

WARNING:

Allow only qualified service personnel to install this equipment. The installation must conform to all local codes and regulations.

Equipment Placement

WARNING:

Avoid personal injury and damage to this equipment. An unstable mounting surface may cause this equipment to fall.

Prisma II equipment is suitable for installation in network telecommunications facilities.

To protect against equipment damage or injury to personnel, comply with the following:

- Install this equipment in a restricted access location.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.
- Place this equipment close enough to a DC input voltage source to accommodate the length of this equipment's power cord.
- Route all power cords so that people cannot walk on, place objects on, or lean objects against them. This may pinch or damage the power cords. Pay particular attention to power cords at plugs, outlets, and the points where the power cords exit this equipment.
- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with this equipment.
- Make sure the mounting surface or rack is stable and can support the size and weight of this equipment.
- The mounting surface or rack should be appropriately anchored according to manufacturer's specifications. Ensure this equipment is securely fastened to the mounting surface or rack where necessary to protect against damage due to any disturbance and subsequent fall.

Ventilation

This equipment has openings for ventilation to protect it from overheating. To ensure equipment reliability and safe operation, do not block or cover any of the ventilation openings. Install the equipment in accordance with the manufacturer's instructions.

Rack Mounting Safety Precautions

Mechanical Loading

Make sure that the rack is placed on a stable surface. If the rack has stabilizing devices, install these stabilizing devices before mounting any equipment in the rack.

WARNING:

Avoid personal injury and damage to this equipment. Mounting this equipment in the rack should be such that a hazardous condition is not caused due to uneven mechanical loading.

Reduced Airflow

When mounting this equipment in the rack, do not obstruct the cooling airflow through the rack. Be sure to mount the blanking plates to cover unused rack space. Additional components such as combiners and net strips should be mounted at the back of the rack, so that the free airflow is not restricted.

CAUTION:
Installation of this equipment in a rack should be such that the amount of airflow required for safe operation of this equipment is not compromised.

Elevated Operating Ambient Temperature

Only install this equipment in a humidity- and temperature-controlled environment that meets the requirements given in this equipment's technical specifications.

CAUTION:
If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install this equipment in an environment compatible with the manufacturer's maximum rated ambient temperature.

Handling Precautions

When moving a cart that contains this equipment, check for any of the following possible hazards:

WARNING:
Avoid personal injury and damage to this equipment! Move any equipment and cart combination with care. Quick stops, excessive force, and uneven surfaces may cause this equipment and cart to overturn.

- Use caution when moving this equipment/cart combination to avoid injury from tip-over.
- If the cart does not move easily, this condition may indicate obstructions or cables that may need to be disconnected before moving this equipment to another location.
- Avoid quick stops and starts when moving the cart.
- Check for uneven floor surfaces such as cracks or cables and cords.

Grounding

If this equipment is equipped with an external grounding terminal, attach one end of an 18-gauge wire (or larger) to the grounding terminal; then, attach the other end of the wire to a ground, such as a grounded equipment rack.

Equipotential Bonding

If this equipment is equipped with an external chassis terminal marked with the IEC 60417-5020 chassis icon (

), the installer should refer to CENELEC standard EN 50083-1 or IEC standard IEC 60728-11 for correct equipotential bonding connection instructions.

Connection to -48 VDC/-60 VDC Power Sources

If this equipment is DC-powered, refer to the specific installation instructions in this manual or in companion manuals in this series for information on connecting this equipment to nominal -48 VDC/-60 VDC power sources.

Circuit Overload

Know the effects of circuit overloading before connecting this equipment to the power supply.

CAUTION:

Consider the connection of this equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Refer to the information on the equipment-rating label when addressing this concern.

General Servicing Precautions

WARNING:

Avoid electric shock! Opening or removing this equipment's cover may expose you to dangerous voltages.

CAUTION:

These servicing precautions are for the guidance of qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

Be aware of the following general precautions and guidelines:

- **Servicing** - Servicing is required when this equipment has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into this equipment, this equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **Wristwatch and Jewelry** - For personal safety and to avoid damage of this equipment during service and repair, do not wear electrically conducting objects such as a wristwatch or jewelry.

- **Lightning** - Do not work on this equipment, or connect or disconnect cables, during periods of lightning.
- **Labels** - Do not remove any warning labels. Replace damaged or illegible warning labels with new ones.
- **Covers** - Do not open the cover of this equipment and attempt service unless instructed to do so in the instructions. Refer all servicing to qualified service personnel only.
- **Moisture** - Do not allow moisture to enter this equipment.
- **Cleaning** - Use a damp cloth for cleaning.
- **Safety Checks** - After service, assemble this equipment and perform safety checks to ensure it is safe to use before putting it back into operation.

Electrostatic Discharge

Electrostatic discharge (ESD) results from the static electricity buildup on the human body and other objects. This static discharge can degrade components and cause failures.

Take the following precautions against electrostatic discharge:

- Use an anti-static bench mat and a wrist strap or ankle strap designed to safely ground ESD potentials through a resistive element.
- Keep components in their anti-static packaging until installed.
- Avoid touching electronic components when installing a module.

Fuse Replacement

To replace a fuse, comply with the following:

- Disconnect the power before changing fuses.
- Identify and clear the condition that caused the original fuse failure.
- Always use a fuse of the correct type and rating. The correct type and rating are indicated on this equipment.

Batteries

This product may contain batteries. Special instructions apply regarding the safe use and disposal of batteries:

Safety

- Insert batteries correctly. There may be a risk of explosion if the batteries are incorrectly inserted.
- Do not attempt to recharge ‘disposable’ or ‘non-reusable’ batteries.
- Please follow instructions provided for charging ‘rechargeable’ batteries.
- Replace batteries with the same or equivalent type recommended by manufacturer.
- Do not expose batteries to temperatures above 100°C (212°F).

Disposal

- The batteries may contain substances that could be harmful to the environment
- Recycle or dispose of batteries in accordance with the battery manufacturer’s instructions and local/national disposal and recycling regulations.



- The batteries may contain perchlorate, a known hazardous substance, so special handling and disposal of this product might be necessary. For more information about perchlorate and best management practices for perchlorate-containing substance, see www.dtsc.ca.gov/hazardouswaste/perchlorate.

Modifications

This equipment has been designed and tested to comply with applicable safety, laser safety, and EMC regulations, codes, and standards to ensure safe operation in its intended environment. Refer to this equipment's data sheet for details about regulatory compliance approvals.

Do not make modifications to this equipment. Any changes or modifications could void the user’s authority to operate this equipment.

Modifications have the potential to degrade the level of protection built into this equipment, putting people and property at risk of injury or damage. Those persons making any modifications expose themselves to the penalties arising from proven non-compliance with regulatory requirements and to civil litigation for compensation in respect of consequential damages or injury.

Accessories

Use only attachments or accessories specified by the manufacturer.

Electromagnetic Compatibility Regulatory Requirements

This equipment meets applicable electromagnetic compatibility (EMC) regulatory requirements. Refer to this equipment's data sheet for details about regulatory compliance approvals. EMC performance is dependent upon the use of correctly shielded cables of good quality for all external connections, except the power source, when installing this equipment.

- Ensure compliance with cable/connector specifications and associated installation instructions where given elsewhere in this manual.

Otherwise, comply with the following good practices:

- Multi-conductor cables should be of single-braided, shielded type and have conductive connector bodies and backshells with cable clamps that are conductively bonded to the backshell and capable of making 360° connection to the cable shielding. Exceptions from this general rule will be clearly stated in the connector description for the excepted connector in question.
- Ethernet cables should be of single-shielded or double-shielded type.
- Coaxial cables should be of the double-braided shielded type.

EMC Compliance Statements

Where this equipment is subject to USA FCC and/or Industry Canada rules, the following statements apply:

FCC Statement for Class A Equipment

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

Industry Canada - Industrie Canadienne Statement

This apparatus complies with Canadian ICES-003.
Cet appareil est confome à la norme NMB-003 du Canada.

CENELEC/CISPR Statement with Respect to Class A Information Technology Equipment

This is a Class A equipment. In a domestic environment this equipment may cause radio interference in which case the user may be required to take adequate measures.

Laser Safety

Introduction

This equipment contains an infrared laser that transmits intensity-modulated light and emits invisible radiation.

Warning: Radiation

WARNING:

- **Avoid personal injury! Use of controls, adjustments, or procedures other than those specified herein may result in hazardous radiation exposure.**
- **Avoid personal injury! The laser light source on this equipment (if a transmitter) or the fiber cables connected to this equipment emit invisible laser radiation. Avoid direct exposure to the laser light source.**
- **Avoid personal injury! Viewing the laser output (if a transmitter) or fiber cable with optical instruments (such as eye loupes, magnifiers, or microscopes) may pose an eye hazard.**

- Do not apply power to this equipment if the fiber is unmated or unterminated.
- Do not stare into an unmated fiber or at any mirror-like surface that could reflect light emitted from an unterminated fiber.
- Do not view an activated fiber with optical instruments such as eye loupes, magnifiers, or microscopes.
- Use safety-approved optical fiber cable to maintain compliance with applicable laser safety requirements.

Warning: Fiber Optic Cables

WARNING:

Avoid personal injury! Qualified service personnel may only perform the procedures in this manual. Wear safety glasses and use extreme caution when handling fiber optic cables, particularly during splicing or terminating operations. The thin glass fiber core at the center of the cable is fragile when exposed by the removal of cladding and buffer material. It easily fragments into glass splinters. Using tweezers, place splinters immediately in a sealed waste container and dispose of them safely in accordance with local regulations.

Safe Operation for Software Controlling Optical Transmission Equipment

If this manual discusses software, the software described is used to monitor and/or control ours and other vendors' electrical and optical equipment designed to transmit video, voice, or data signals. Certain safety precautions must be observed when operating equipment of this nature.

For equipment specific safety requirements, refer to the appropriate section of the equipment documentation.

For safe operation of this software, refer to the following warnings.

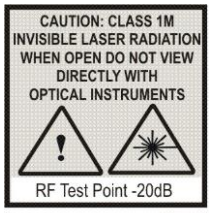
WARNING:

- **Ensure that all optical connections are complete or terminated before using this equipment to remotely control a laser device. An optical or laser device can pose a hazard to remotely located personnel when operated without their knowledge.**
- **Allow only personnel trained in laser safety to operate this software. Otherwise, injuries to personnel may occur.**
- **Restrict access of this software to authorized personnel only.**
- **Install this software in equipment that is located in a restricted access area.**

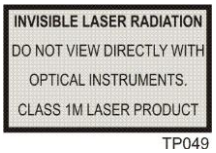
Warning Labels

One or more of the labels shown below are located on Prisma II Pre-Amplifiers, Post-Amplifiers, Optical Transmitters, and Optical Switches.

TP053



TP048

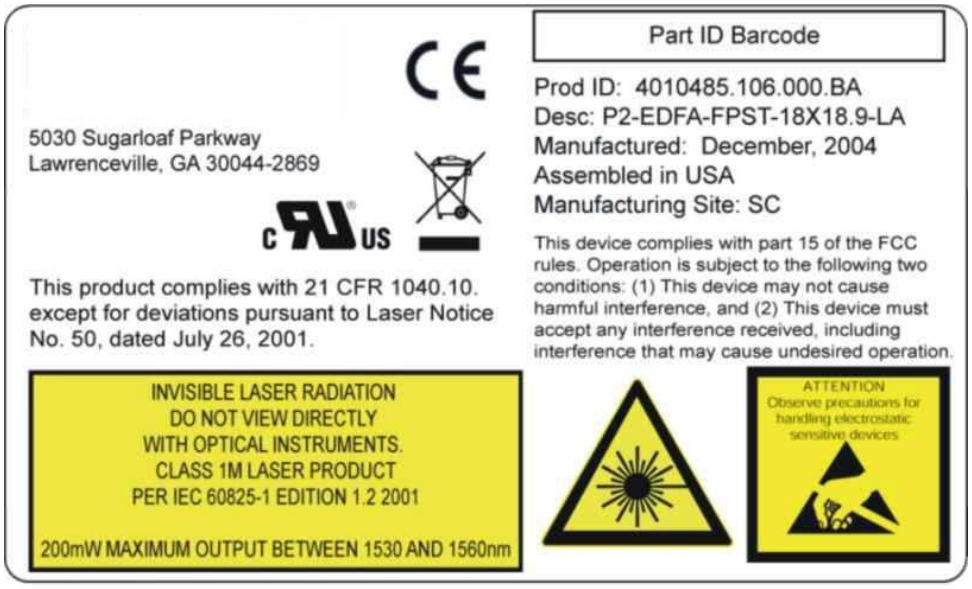


TP049

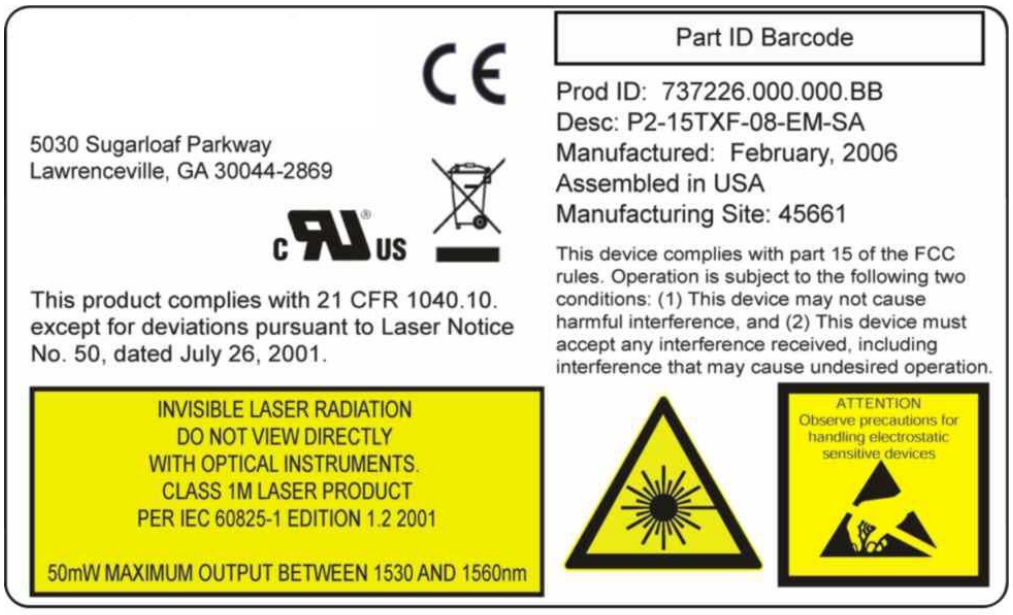
OR

Optical Input

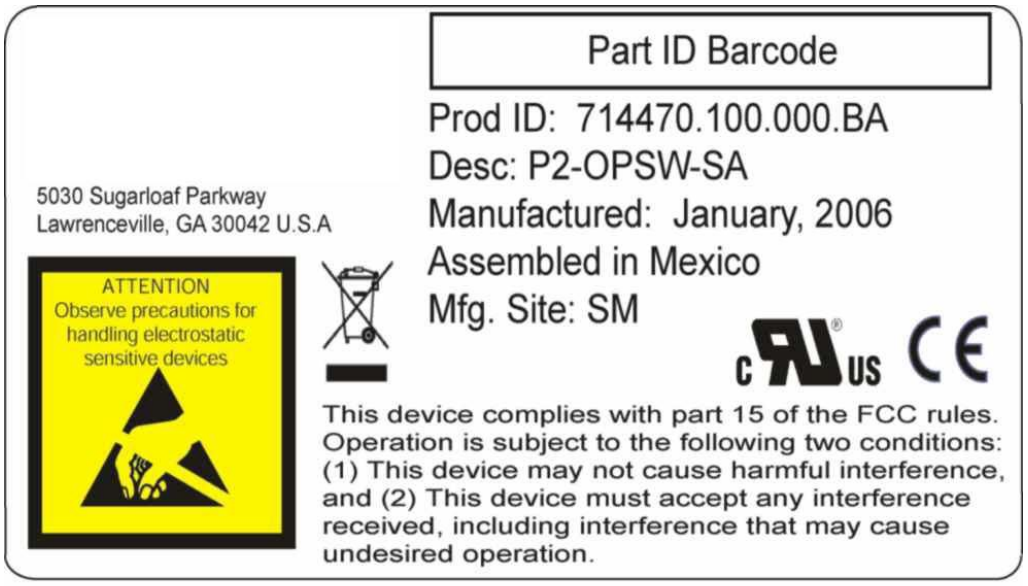
Optical Output



TP142


Part ID Barcode
Prod ID: 737226.000.000.BB
Desc: P2-15TXF-08-EM-SA
Manufactured: February, 2006
Assembled in USA
Manufacturing Site: 45661
5030 Sugarloaf Parkway
Lawrenceville, GA 30044-2869
This product complies with 21 CFR 1040.10. except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001.
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.
INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY
WITH OPTICAL INSTRUMENTS.
CLASS 1M LASER PRODUCT
PER IEC 60825-1 EDITION 1.2 2001
50mW MAXIMUM OUTPUT BETWEEN 1530 AND 1560nm
ATTENTION
Observe precautions for handling electrostatic sensitive devices

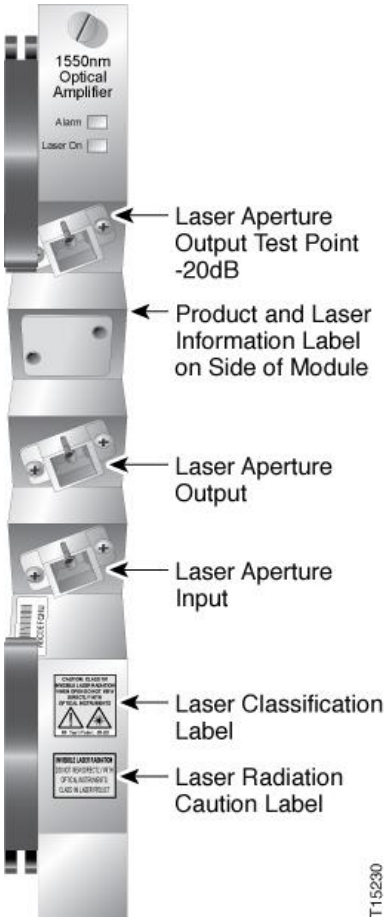
TP144

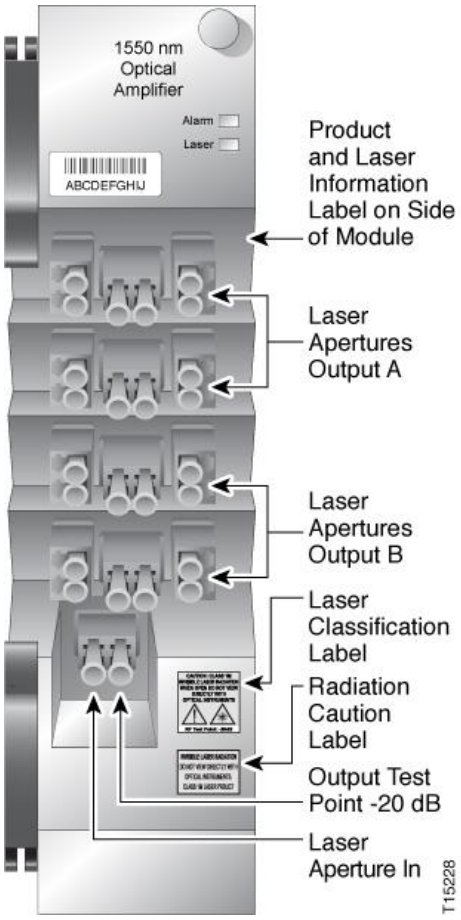

Part ID Barcode
Prod ID: 714470.100.000.BA
Desc: P2-OPSW-SA
Manufactured: January, 2006
Assembled in Mexico
Mfg. Site: SM
5030 Sugarloaf Parkway
Lawrenceville, GA 30042 U.S.A
ATTENTION
Observe precautions for handling electrostatic sensitive devices
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

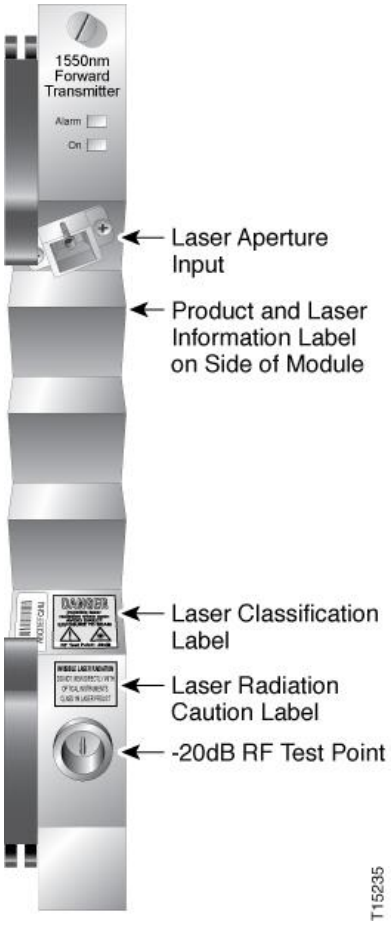
TP143

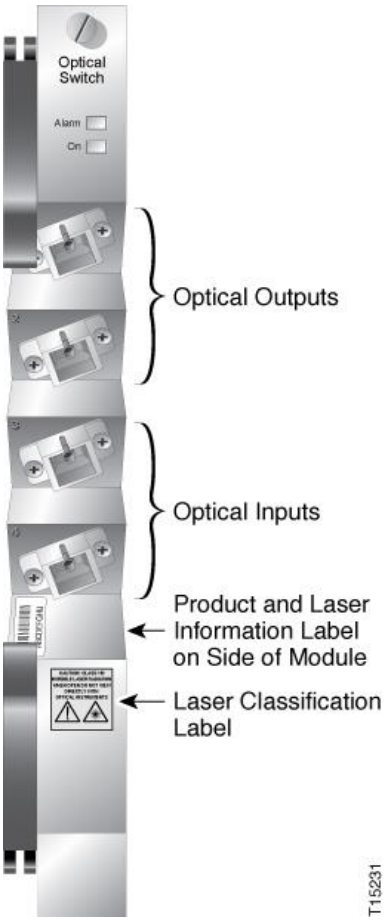
Location of Labels on Equipment

The following illustrations display the typical locations of warning labels on Prisma II Pre-Amplifiers, Post-Amplifiers, Optical Transmitters, and Optical Switches.






1550nm
Forward
Transmitter
Alarm
On
Laser Aperture
Input
Product and Laser
Information Label
on Side of Module
Laser Classification
Label
Laser Radiation
Caution Label
-20dB RF Test Point
T15235


Optical
Switch
Alarm
On
Optical Outputs
Optical Inputs
Product and Laser
Information Label
on Side of Module
Laser Classification
Label
T15231

1

Introduction

Overview

The Cisco® Prisma® II Enhanced Management System Intelligent Control Interface Module 2 (ICIM2) currently supports three methods of remote user access:

- Command Line Interface (CLI)
- ICIM Web Interface
- Simple Network Management Protocol (SNMP)

This guide describes remote user access for the ICIM2 via CLI and the ICIM Web Interface. Remote access via SNMP is described in detail in the *Cisco Prisma II Platform Installation & Configuration Guide*, part number OL-27999.

The CLI supports remote monitoring and control of Prisma II Enhanced platform components and operating parameters by craft operators and element management systems. The ICIM Web Interface provides many of the same functions via a user-friendly interface that requires no knowledge of CLI or other commands.

Purpose

This guide provides complete details on using CLI commands and the ICIM Web Interface for craft and remote system monitoring and control.

Who Should Use This Document

This document is intended for authorized service personnel who have experience working with similar equipment. The service personnel should have appropriate background and knowledge to complete the procedures described in this document.

Qualified Personnel

Only appropriately qualified and skilled personnel should attempt to install, operate, maintain, and service this product.

WARNING:

Allow only qualified and skilled personnel to install, operate, maintain, and service this product. Otherwise, personal injury or equipment damage may occur.

Scope

This guide discusses the following topics.

- Using the Command Line Interface (CLI)
- CLI mode commands
- Module mode commands
- ICIM mode commands
- Terminal mode commands
- ICIM Web Interface
- Descriptions of module parameters

Document Version

This is the fourth release of this guide.

In This Chapter

Related Publications

You may find the following publications useful as you implement the procedures in this document.

- *Cisco Prisma II Platform Installation & Configuration Guide* - part number OL-27999
- *Cisco Prisma II System Release 2.05.41 Release Note*, part number OL-31426-01

2

CLI Overview

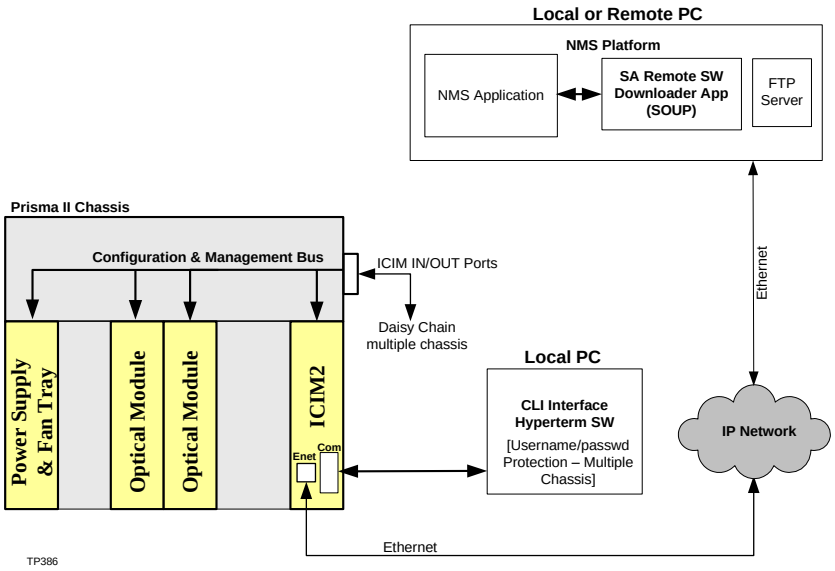
Introduction

The command-line interface (CLI) for the Prisma II Intelligent Communications Interface Module 2 (ICIM2) allows for monitoring and control of the ICIM2 domain. The ICIM2 domain includes the ICIM2 itself, the chassis in which it is installed, and all other modules installed in the chassis and any daisy-chained chassis.

The CLI is designed for use by both local craft operators and remote monitoring systems. A single command set supports two command entry formats, one intended for use by human operators and another designed for efficient communication with network applications.

In This Chapter

Prisma II Enhanced Platform Management Configuration



User Authorization

Access to the CLI is controlled by password-protected login. Each CLI user is granted access at one of three authorization levels:

Authorization Level	Description
Admin	Admin level users can add and delete users, change user passwords, and change IP addresses and other critical values.
Readwrite	Users with Readwrite access can view system parameter values as well as change most control and operating parameter values.
Read	Users with Read access can view system parameter values, but cannot change them.

An authorization table in the ICIM2 retains CLI user information. The designated CLI administrator manages this information by adding, deleting, and changing authorizations as required.

For further information, see the commands ***show user*** (on page 148), ***user add*** (on page 152), ***user change*** (on page 154), ***user delete*** (on page 156), and ***user unlock*** (on page 157). For additional details, see **User Management** in the installation guide for your system release.

CLI Login and Logout

To use the CLI, you must first establish communication with a chassis in one of two ways:

- Use a serial connection (e.g., HyperTerminal) as described in the installation guide for your system release.
- Use your element management system (see your network administrator for assistance).

Once communication is established, the control console or PC displays the following message from the ICIM2:

```
Scientific-Atlanta Intelligent Communications Interface Module (ICIM)

                  ---------------------
                    W A R N I N G
                  ---------------------

Unauthorized or improper use of this system may result in
administrative disciplinary action and civil or criminal penalties.
By continuing to use this system you indicate your awareness of and
consent to these terms and conditions of use.  LOG OFF IMMEDIATELY
if you do not agree to the conditions stated in this warning.

login:
```

Note: When communicating via serial connection, some terminal programs may send unexpected characters to the ICIM2 on initial connection. If this occurs and the user presses the Enter key to access the login prompt, the ICIM2 may interpret the unexpected characters as an invalid user name. This leads to a trap and an entry in the event log indicating a failed login.

To Log In

Complete the following steps to log into the CLI.

1. At the login prompt, type your assigned user name (or if none is assigned, type **Administrat0r**), and then press **Enter**. The user name is case-sensitive.
2. At the password prompt, type your assigned password (or if none is assigned, type **AdminPassw0rd**), and then press **Enter**. The password is case-sensitive.

   An acknowledgement similar to the following appears:

   ```
   User Admininstrat0r logged in successfully on 09/05/06 at 8:09:18
   Previous successful login was on 09/01/06 at 15:56:28
   There were no failed attempts to login with this user id previously
   CLI>
   ```

You can now use CLI commands to interact with the ICIM2.

Note: For security reasons, it is recommended that the default user be changed immediately. For additional information, see **User Management** in the installation guide for your system release.

To Log Out

To log out of the CLI and exit the session, type **logout**, and then press **Enter**.

Note: The CLI recognizes the **logout** command at any command prompt, regardless of the current command mode.

Important:

- For Telnet operation, the computer you are using must have a network connection through which it can reach the ICIM2 using its IP address.
- No more than four Telnet sessions are allowed at one time.
- If IPsec is enabled on the ICIM2, it must also be enabled on the remote CLI user's computer.

CAUTION:

Always use the Logout command to close a serial port or Telnet CLI session. Closing a serial port session without issuing the Logout command leaves the session open for a possible future connection. This may allow unauthorized access by a new user if the previous user had a higher authorization privilege level.

CLI Command Modes

All CLI interactions occur in one of four command modes. Command modes affect the scope of the commands as well as how they are interpreted.

Mode	Description
CLI	The default command mode at login, used for issuing CLI commands to perform general control and monitoring tasks.
Module	Used to issue Module mode commands, which are directed to a specific module or range of modules installed in the ICIM2 domain.
ICIM	Used to issue ICIM mode commands, which are directed to the ICIM2 module itself.
Terminal	Used to issue Terminal mode commands, which control the way that information is displayed onscreen.

Command Prompts

The onscreen command prompt indicates the command mode currently in effect, as follows:

Prompt	Meaning
CLI>	CLI mode commands are now recognized.
/ MODULE>	Module mode commands are now recognized; commands are directed to all chassis and slots in the ICIM2 domain (see below for details).
ICIM>	ICIM mode commands are now recognized.
TERMINAL>	Terminal mode commands are now recognized.

Changing Command Modes

CLI mode is the default command mode at login. To select a different command mode, enter the desired mode name at the CLI> command prompt.

The following sample dialog shows how you could change from CLI mode to Module mode:

```
CLI> module
*/* MODULE>
```

You may then use any CLI commands recognized in Module command mode.

To exit Module mode and return to CLI mode, use the **exit** command:

```
*/* MODULE> exit
CLI>
```

If desired, then change to **icim** command mode as follows:

```
CLI> icim
ICIM>
```

You cannot change command modes directly, e.g., by typing **terminal** at the ICIM> prompt. Instead, you must first return to CLI mode and then select a new command mode, as shown below:

```
ICIM> exit
CLI> terminal
TERMINAL>
```

Command Syntax

To facilitate its use by both craft operators and remote monitoring systems, the CLI accepts commands in either of two formats:

- A modal command format allows craft operators to first select a command mode, and then use mode-specific commands and help screens.
- A non-modal command format allows an element management system (or a craft operator) to enter all command parameters, including command mode changes, on a single line. While only one command may be entered, the command mode does not need to be changed between commands.

The syntax for these command formats is described below.

Modal Command Syntax

The general format for a modal CLI command, as a craft operator might send it, is as follows:

modeName modeOptions
modeOptions
modeOptions Action actionOptions Values
Action actionOptions Values
Exit

The parameters in the command have the following functions:

Keyword	Function
modeName	The name of a mode switch: **cli**, **module**, **icim**, or **terminal**.
modeOptions	Options that may be associated with the modename.
Action	A command keyword such as **set**, **show**, **info**, etc.
actionOptions	Options that may be associated with the action.
Values	Values that may be associated with the action.
Exit	Used to return to CLI command mode.

Example

Craft operators typically enter commands modally; that is, by first changing to the appropriate command mode and then entering the desired command.

The following sample dialog illustrates this process.

```
CLI> module
*/* MODULE> chassis 1 slot 6

01/06 MODULE> alarm module
  No active alarms found for the specified module range

01/06 MODULE>
```

- In the first line of this example, the operator selects the Module command mode.
- In the next line, the prompt has changed to reflect the new command mode. The operator then selects chassis 1, slot 6 as the target for subsequent commands.
- On pressing Enter, the prompt then changes from */* MODULE> to 01/06 MODULE> to show the selection of chassis 1, slot 6 in effect.
- Next, the operator types the **alarm module** command.
- On pressing **Enter**, the system response "No active alarms found for the specified module range" reflects the alarm status of the module in chassis 1, slot 6 of the current ICIM2 domain.

Modal command entry is often helpful for human operators. It can minimize the need for keystrokes in some cases, thus saving time and eliminating a possible source of error. Modal operation can also help streamline the work flow by focusing commands and human attention on a particular chassis or module of interest.

Non-Modal Command Syntax

The general format for a non-modal CLI command, as usually sent from an element management system, is as follows:

modeName modeOptions Action actionOptions Values Exit

The parameters in the command have the same functions as in modal command entry:

Keyword	Function
modeName	The name of a mode switch: **cli**, **module**, **icim**, or **terminal**.
modeOptions	Options that may be associated with the modename.
Action	A command keyword such as **set**, **show**, **info**, etc.
actionOptions	Options that may be associated with the action.
Values	Values that may be associated with the action.
Exit	Used to return to CLI command mode.

Example

A non-modal command is entered without changing command modes. For example, the **alarm module** command shown above could have been entered as follows:

```
CLI> module chassis 1 slot 6 exit
```

```
SUCCESS!
CLI> module alarm module exit
  No active alarms found for the specified module range

SUCCESS!
CLI>
```

The CLI command line interpreter would then parse the command into the following sequence of instructions:

- Switch to **Module** command mode.
- Direct subsequent commands to **chassis 1** in the current ICIM2 domain.
- Direct subsequent commands to **slot 6** of the designated chassis in the current ICIM2 domain.
- **Exit** Module mode and return to CLI command mode following command execution.
- Display the **alarm** status of the specified device, i.e., the module occupying chassis 1, slot 6.
- **Exit** Module mode and return to CLI command mode following command execution.

This command entry format is generally preferred for use by element management systems. For maximum efficiency, these systems should be programmed to send CLI commands in non-modal format, i.e., with all command parameters on a single line.

On occasion, this method may also be more efficient than modal entry for craft operators who are already very familiar with the syntax of the command being used.

Command Usage Guidelines

- CLI commands, unlike login passwords, are insensitive to case. For example, the keywords **Set**, **set**, and **SET** all have the same meaning in CLI.
- If a particular action requires parameters that are not included in the command, an error message will be issued.
- In general, CLI commands issued from an element management system should have the non-modal "single-line" form shown above. Exceptions may be made where they will improve efficiency.
- For non-modal command entry, the **exit** parameter is included for backward compatibility. It is not required in order to return to the CLI mode.

- Mode changes can be used to restrict the scope of most CLI commands. When the command mode changes, the prompt changes to reflect the new mode.

Wildcards

Some CLI command parameters can include one or more "wildcard" characters (*) for added flexibility.

The following sample dialog shows how a craft operator could use a wildcard to check the output power on all modules in chassis 20:

```
CLI> module

*/* MODULE> chassis 20 slot *

20/* MODULE> show monitor outpwr

  MODID     NAME      VALUE      UNITS
  20/05     OutPwr     -5.33429   dBm
  20/07     OutPwr     10.086     dBm
  20/13     OutPwr     -6.15736   dBm

SUCCESS!
20/* MODULE>
```

- In the first line above, the operator changes from CLI command mode to Module command mode and specifies chassis 20, any (*) slot.
- In the next line, the prompt (20/* MODULE>) has changed to reflect the new command mode and chassis specification.
- At this prompt, the operator enters the **show** command followed by **monitor** and **outpwr**. These parameters specify that the response should include only modules for which OutPwr is a monitored parameter.
- In the next four lines, the response identifies each module by its chassis and slot location (e.g., 20/05) and displays the current output power level in dBm.

In the following example, a craft operator uses the wildcard character to check all monitored parameters whose name contained **pwr**:

```
CLI> module chassis 20 slot *

20/* MODULE> show monitor *pwr*

  MODID     NAME      VALUE      UNITS
  20/05     OutPwr    8.3        dBm
  20/07     OutPwr    5.91542     dBm
  20/14     OutPwrA   18.9057     dBm
  20/14     OutPwrB   18.8904     dBm

SUCCESS!
20/* MODULE>
```

The pattern matching is caseless, so the parameters OutPwr, InPwr, and InPwr2 are included in the response even though a lowercase P was used in the command line.

Wildcards default to MS Windows filename pattern matching format, where **?**, *****, and **[x-y]** have special meaning. This format can be adjusted using the Terminal command Pattern to use POSIX regex wildcards. See ***Terminal Mode Commands*** (on page 159) for additional information.

Note: Wildcards are never allowed anywhere in a Set command.

General Hints and Help

The CLI command information in this section applies regardless of the command or command mode currently in use.

Shortcuts and Abbreviations

The CLI interpreter recognizes shortcuts and abbreviations for certain commands. A shortcut is a single key or key combination (such as Ctrl-u) that is functionally equivalent to a longer command. Shortcuts are handy for craft operators because they reduce keystrokes, saving time and reducing the risk of a typing error.

The following table lists the shortcuts available in all CLI command modes.

Shortcut	Description
TAB	Automatically completes typing of a keyword.
?	Displays a list of expected keywords or tokens.
Ctrl-d	Deletes the current character.
Ctrl-u	Deletes text up to the cursor.
Ctrl-k	Deletes text from the cursor to the end of the line.
Ctrl-a	Moves the cursor to the beginning of the line.
Ctrl-e	Moves the cursor to the end of the line.
Ctrl-p	Gets the previous command from history.
Ctrl-n	Gets the next command from history.
Ctrl-b	Moves the cursor left.
Ctrl-f	Moves the cursor right.
Esc-b	Moves back one word.
Esc-f	Moves forward one word.
Esc-c	Converts the remainder of the word to uppercase.
Esc-l	Converts the remainder of the word to lowercase.
Esc-d	Deletes the remainder of the word.
Ctrl-w	Deletes the current word up to the cursor.
Ctrl-t	Transposes the current and previous characters.
Ctrl-z	Enters the command and then returns to the root prompt.
Ctrl-l	Refreshes the input line.
↑	Gets the previous command from history.

Shortcut	Description
↓	Gets the next command from history.
←	Moves the cursor left.
→	Moves the cursor right.

Note: This list can also be viewed in CLI by issuing the command **help edit**.

An abbreviation is a truncated form of a command name. The CLI recognizes the shortest character string that uniquely identifies a command or parameter. For example, in CLI command mode, typing **i** (or **ici**, etc.) is recognized as equivalent to typing the **icim** command. As with shortcuts, abbreviations are useful for craft operators because they save typing time and reduce the chance of typing error.

Note: Shortcuts and abbreviations should not be used in commands sent by network or element management systems. In an NMS or EMS context, they do not significantly reduce typing time or error, and may make program code more difficult to maintain.

Alarm Information

You can use the **alarm** command in any command mode to get a list of currently active alarms in the ICIM2 domain. In Module command mode, you can use the **alarm module** command to narrow the scope of the response. For details, see ***alarm module*** (on page 46).

Getting Online Help

To display a listing of recognized commands for the current command mode, type **help** and then press **Enter**, or simply type the **?** character.

Typing the **?** character is the best way to get help for available commands and parameters. For example:

- Typing **?** at the ICIM> prompt will show all of the available ICIM mode commands.
- Typing **set ?** at the ICIM> prompt will show all of the available parameters for the set command.

To display a description of all recognized commands for the current command mode, type **manual** and then press **Enter**.

You can also display a list of recognized commands for Module, ICIM, and Terminal modes from CLI command mode using the following commands:

- module manual
- terminal manual
- icim manual

Note: A summary of recognized CLI commands by command mode is provided in ***Prisma II Permitted CLI Commands*** (on page 215).

3

CLI Mode Commands

Introduction

This chapter describes the commands that can be executed in CLI command mode. Some of the commands available in CLI command mode are global in scope, and give the same results whether entered in CLI mode or another command mode.

In This Chapter

alarm

Syntax

alarm

Description

The **alarm** command is used to display all active alarms in the domain of the ICIM2. This command produces the same results whether entered in CLI, Module, Terminal, or ICIM command mode.

Note: This command is functionally equivalent to ***alarm domain*** (on page 45).

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
CLI> alarm
  No active alarms found

SUCCESS!
CLI>
```

This response shows that no alarms are active in the ICIM2 domain. To narrow the command scope to specific chassis or modules, use ***alarm module*** (on page 46).

Related Commands

alarm (Module command mode)

alarm (ICIM command mode)

alarm (Terminal command mode)

alarm domain (Module command mode)

alarm module (Module command mode)

clear

Syntax

clear

Description

The **clear** command is used to clear the terminal display.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
CLI> clear
 [screen clears and new prompt appears at top line]
CLI>
```

Related Commands

None

date

Syntax

date

Description

The **date** command is used to display the current date and time.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
CLI> date
Tue, 3 Oct 2006 11:36:43 EST
SUCCESS!
CLI>
```

Related Commands

show clock (ICIM command mode)

help

Syntax

help modeOption

Description

The **help** command is used alone to display onscreen help for all CLI mode commands, or with a **modeOption** parameter to display help for a single command or function.

Note: Typing a question mark (?) character at the CLI> command prompt gives the same result as typing help without a mode option parameter.

Parameters

The possible values for the **modeOption** parameter and their results are listed below.

modeOption	Description
<empty>	Displays onscreen help for all recognized CLI mode commands.
<commandname>	Displays onscreen help for the specified command, if recognized.
edit	Displays onscreen help for command line editing and syntax.
commands	Displays onscreen help for global commands (exit, help, who, whoami).

Access Rights Required

Read, ReadWrite, or Admin

Examples

```
CLI> help
 alarm              - Display active alarms for all modules
 clear              - Clear the screen
 date               - Display the current system date & time
 icim               - Enter ICIM mode
 logout             - Log off this system
 manual             - Show detailed help text
 module             - Enter module mode
 terminal           - Enter terminal mode
```

```
CLI> help edit

 Available editing keystrokes

 Delete current character.....................Ctrl-d
 Delete text up to cursor.....................Ctrl-u
 Delete from cursor to end of line............Ctrl-k
 Move to beginning of line....................Ctrl-a
 Move to end of line..........................Ctrl-e
 Get prior command from history...............Ctrl-p
 Get next command from history................Ctrl-n
 Move cursor left.............................Ctrl-b
 Move cursor right............................Ctrl-f
 Move back one word...........................Esc-b
 Move forward one word........................Esc-f
 Convert rest of word to uppercase............Esc-c
 Convert rest of word to lowercase............Esc-l
 Delete remainder of word.....................Esc-d
 Delete word up to cursor.....................Ctrl-w
 Transpose current and previous character.....Ctrl-t
 Enter command and return to root prompt......Ctrl-z
 Refresh input line...........................Ctrl-l

CLI>
```

Related Commands

help (Module command mode)

help (ICIM command mode)

help (Terminal command mode)

icim

Syntax

icim

Description

The **icim** command is used to change from CLI command mode to ICIM command mode.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Examples

CLI is the default command mode at login. To enter ICIM command mode, enter the **icim** command as follows:

```
CLI> icim
ICIM> exit
CLI>
```

To enter ICIM command mode from any command mode other than CLI, it is necessary to first exit to CLI command mode, as follows:

```
*/* MODULE> exit
CLI> ICIM
ICIM>
```

Related Commands

module

terminal

exit

logout

Syntax

logout

Description

The **logout** command is used to terminate the current CLI session. This command is available in every command mode.

Important:

- For Telnet operation, the computer you are using must have a network connection through which it can reach the ICIM2 using its IP address.
- No more than four Telnet sessions are allowed at one time.
- If IPsec is enabled on the ICIM2, it must also be enabled on the remote CLI user's computer.

CAUTION:

Always use the Logout command to close a serial port or Telnet CLI session. Closing a serial port session without issuing the Logout command leaves the session open for a possible future connection. This may allow unauthorized access by a new user if the previous user had a higher authorization privilege level.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
CLI> logout
connection to host lost
C:\>
```

Related Commands

logout (Module command mode)

logout (ICIM command mode)

logout (Terminal command mode)

manual

Syntax

modeOption manual

Description

The **manual** command is used to display detailed help for CLI command mode, or for another command mode if specified by a preceding **modeOption** parameter.

Parameters

The possible values for the **modeOption** parameter and their results are listed below.

modeOption	Description
<empty>	Displays detailed help for CLI command mode.
module	Displays detailed help for Module command mode.
terminal	Displays general help for Terminal command mode.
icim	Displays detailed help for ICIM command mode.

Access Rights Required

Read, ReadWrite, or Admin

Example

```
CLI> manual

Try one of these help commands for details on specific modes:
  module manual
  terminal manual
  icim manual

General Hints:

  Keywords can be abbreviated to a unique prefix. For instance
  in CLI mode, the keyword 'MODULE' can be given as just 'm'
  or 'mod'.

  Use TAB to autocomplete a keyword.
  Use ? to list expected keywords or tokens (depends on previous input).
  Use BACKSPACE to erase previous characters.
  Use 'help edit' to display more editing commands

  Use Alarm in any mode to get a list of active alarms. When in Module
  mode, you can also narrow the list of active alarms to just those in
  the current ModSpec range. See the Module Help for further details.

  Note: entering a mode command (MODULE, ICIM, TERMINAL) enters that mode
  immediately but it is not indicated until the next prompt is displayed.
```

```
  The interface uses modes: CLI, MODULE, TERMINAL, and ICIM. The prompt
  reflects the current mode. Enter the mode name to enter that mode, and
  use EXIT to leave the mode and return to CLI mode.

CLI>
```

Related Commands

manual (ICIM command mode)

manual (Module command mode)

manual (Terminal command mode)

help

module

Syntax

module

Description

The **module** command is used to change from CLI command mode to Module command mode.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Examples

CLI is the default command mode at login. To enter Module command mode, enter the **module** command as follows:

```
CLI> module
*/* MODULE> exit
CLI>
```

To enter Module command mode from any command mode other than CLI, it is necessary to first exit to CLI command mode, as follows:

```
ICIM> exit
CLI> module
*/* MODULE>
```

Related Commands

icim

terminal

exit

terminal

Syntax

terminal

Description

The **terminal** command is used to change from CLI command mode to Terminal command mode.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Examples

CLI is the default command mode at login. To enter Terminal command mode, enter the **terminal** command as follows:

```
CLI> terminal
TERMINAL> exit
CLI>
```

To enter Terminal command mode from any command mode other than CLI, it is necessary to first exit to CLI command mode, as follows:

```
*/* MODULE> exit
CLI> terminal
TERMINAL>
```

Related Commands

module

icim

exit

who

Syntax

who

Description

The **who** command is used to display a list of the currently logged in users.

Parameters

None

Access Rights Required

Admin

Example

```
CLI> who

LOGIN IDENTIFIER  IP ADDRESS     TYPE     LOGIN TIME
Administrat0r     local console  CLI      03/13/07 11:22:01

SUCCESS!
CLI>
```

Note: The value in the IP Address column indicates the IP address from which the remote user is connecting to the ICIM2. If the user is connecting locally via the ICIM2 front-panel serial port, the value in this column will be "local console," as shown in the example above.

Related Commands

whoami

whoami

Syntax

whoami

Description

The **whoami** command is used to display the username of the current CLI user.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
CLI> whoami
User name: Administrat0r
CLI>
```

Related Commands

who

4

Module Mode Commands

Introduction

This chapter describes the CLI commands that can be executed in the Module command mode.

In This Chapter

Overview

Module mode commands allow for the control and monitoring of a selected module or range of modules. The scope of a Module mode command is defined using a special command called a module specification, or **modspec**. The Module mode command prompt always indicates the modspec currently in effect. For additional information, see ***About Modspecs*** (on page 41).

Types of Module Commands

The following commands are recognized in Module command mode:

- The **alarm** commands are used to display active alarms in selected portions of the ICIM2 domain.
- The **chassis** command is used to select a chassis or range of chassis for subsequent commands.
- The **exit** command is used to exit Module command mode and return to CLI command mode.
- The **help** command is used to display abbreviated help for Module mode commands.
- The **info** commands are used to display selected alarm, control, module, or monitoring information in detail.
- The **logout** command is used to exit CLI and return to the system prompt.
- The **manual** command is used to display detailed help for Module mode commands.
- The **modid** command is used to specify the modspec (chassis and slot) for subsequent commands.
- The **reset** command is used to restore module controls and alarms to their factory default values.
- The **set** commands are used to assign a value to alarm or control parameters.
- The **show** commands are used to display the values of selected alarm, control, module, or monitoring parameters.
- The **slot** command is used to select a slot or range of slots for subsequent commands.

This chapter describes these commands and their applications in detail.

Note: The **show** commands can accept a wildcard character as well as a range of chassis and slots. All other Module mode commands must be applied to a specific chassis and slot location, as explained in ***About Modspecs*** (on page 41).

To Access Module Command Mode

The CLI only recognizes Module mode commands in Module command mode.

Complete the following steps to enter Module command mode.

1. Confirm that you have logged onto CLI as explained in ***CLI Login and Logout*** (on page 8).
2. At the CLI> prompt, type **Module**, and then press **Enter**.
3. Confirm that the command prompt changes to X/Y MODULE> where X and Y are either *, a number, or a range of numbers in brackets. You are now in Module command mode.

About Modspecs

Module specifications, or **modspecs**, are commands that specify a module or range of modules as targets for subsequent Module mode commands. The Module mode command prompt always reflects the modspec currently in effect. For this reason, the term **modspec** also loosely refers to the Module mode prompt itself.

Module Command Prompt

Once in Module mode, the command prompt takes the form

X/Y MODULE>

where X indicates the chassis specification currently in effect, and Y indicates the current slot specification.

The appearance of the Module command prompt changes to reflect the changing modspec, as shown in the following examples.

Module Prompt	Indication
/ MODULE>	The modspec is "wild." The command will include all slots and chassis in the ICIM2 domain.
20/* MODULE>	The modspec specifies a chassis but not a slot. The command will address all slots (modules) in chassis 20.
*/11 MODULE>	The modspec specifies a slot but not a chassis. The command will address slot 11 of all chassis in the ICIM2 domain.
20/11 MODULE>	The modspec specifies a chassis and a slot. The command will address only slot 11 of chassis 20 in the ICIM2 domain.
[1-7]/[4-15] MODULE>	The modspec indicates a range of slots and chassis. The command will address slots 4-15 of chassis 1-7 in the domain.

Modspec Commands

Three commands, **chassis**, **slot**, and **modid**, allow you to select a single chassis and slot location, a range of chassis or slots (or some combination), or the entire ICIM2 domain.

chassis

The **chassis** command can be used to specify any of the following:

- A single chassis, using the chassis ID number (0-99).
- A range of chassis, using two chassis ID numbers in brackets, e.g., [2-87].

- All chassis in the ICIM2 domain, using the wildcard character (*) in place of a chassis ID.

The following sample dialog illustrates the use of all three methods. Note how the Module mode prompt changes on each line to reflect the changing modspec.

```
*/* MODULE> chassis 10           (selects any slot in chassis 10)
10/* MODULE> chassis [2-87]       (selects any slots in chassis 2-87)
[02-87]/* MODULE> chassis *       (selects all chassis and slots)
*/* MODULE>
```

slot

The **slot** command can be used to specify any of the following:

- A single slot, using the slot number (0-47).
- A range of slots, using two slot numbers in brackets, e.g., [2-18].
- All slots in all chassis currently specified, using the wildcard character (*) in place of a slot number.

The following sample dialog illustrates the use of all three methods. Note how the Module prompt changes on each line to reflect the changing modspec.

```
10/* MODULE> slot [2-18]          (selects chassis 10, slots 2-18)
10/[02-18] MODULE> slot 15        (selects chassis 10, slot 15)
10/15 MODULE> slot *             (selects chassis 10, all slots)
10/* MODULE>
```

chassis and slot

The **chassis** and **slot** commands can also be used together on a single command line, as shown in the following example.

```
10/* MODULE> chassis [1-5] slot [4-13]    (selects chassis 1-5, slots 4-13)
[01-05]/[04-13] MODULE> chassis 5 slot 12 (selects chassis 5, slot 12)
05/12 MODULE> chassis * slot *           (selects all chassis and slots)
*/* MODULE>
```

modid

The **modid** command combines the functions of the **chassis** and **slot** commands, allowing you to specify a chassis and slot location using a single parameter, as shown below.

```
*/* MODULE> modid [1-5]/[4-13]          (selects chassis 1-5, slots 4-13)
[01-05]/[04-13] MODULE> modid 0512       (selects chassis 5, slot 12)
05/12 MODULE> modid *                   (selects all chassis and slots)
*/* MODULE>
```

The **modid** command can be somewhat faster to enter, but the resulting dialog may be less readable than when using the **chassis** and **slot** commands, either separately or together on one command line.

Notes on Usage

- Modspecs stay in effect when exiting and re-entering Module command mode. However, modspecs do not affect the scope of CLI, ICIM, or Terminal mode commands.
- When specifying a range of chassis or slots, the specified range need not be fully populated. For example, the chassis range [1-7] is valid even if there are fewer than seven chassis within that range. In addition, all chassis within the specified range are included whether or not their chassis numbers are contiguous.
- For an element management system or other automatic control interface, a specific chassis and slot are required for backward compatibility, and should always be specified.
- For craft operators, ranges may be specified for all Module mode commands except for **set**.

alarm

Syntax

alarm

Description

The **alarm** command is used to display all active alarms in the domain of the ICIM2. This command produces the same results whether entered in CLI, Module, Terminal, or ICIM command mode.

Note: This command is functionally equivalent to ***alarm domain*** (on page 45).

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
20/* MODULE> alarm
  No active alarms found

SUCCESS!
20/* MODULE>
```

This response shows that no alarms are active in the ICIM2 domain. To narrow the command scope to specific chassis or modules, use ***alarm module*** (on page 46).

Related Commands

alarm (CLI command mode)

alarm (ICIM command mode)

alarm (Terminal command mode)

alarm domain

alarm module

alarm domain

Syntax

alarm domain

Description

The **alarm domain** command is used to display all active alarms in the domain of the ICIM2.

Note: This command is functionally equivalent to the **alarm** command.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
20/* MODULE> alarm domain
  No active alarms found

SUCCESS!
20/* MODULE>
```

This response indicates that no alarms are currently active anywhere in the ICIM2 domain. The scope of the response is not limited to chassis 20, despite the current status of the Module prompt.

Related Commands

alarm

alarm module

alarm module

Syntax

alarm module

Description

The **alarm module** command is used to display all active alarms in the range indicated by the Module prompt (modspec).

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
20/[5-7] MODULE> alarm module
  No active alarms found for the specified module range

SUCCESS!
20/[5-7] MODULE>
```

This response indicates that no alarms are currently active in modules 5, 6, or 7 of chassis 20 in the ICIM2 domain. It does not reflect any alarms that may exist in other modules in chassis 20 or in other chassis in the domain.

Related Commands

alarm

alarm domain

chassis

Syntax

chassis chassisidvalue

Description

The **chassis** command is used to specify:

- A single chassis, using the chassis ID number (0-99).
- A range of chassis, using two chassis ID numbers in brackets, e.g., [2-87].
- All chassis in the ICIM2 domain, using the wildcard character (*) in place of a chassis ID.

Parameters

The **chassisidvalue** parameter can be any number from 0 to 99, a bracketed pair of numbers in the same range separated by a hyphen (-), or a wildcard (*) to indicate all chassis.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog illustrates the use of all three methods described above.

```
*/* MODULE> chassis 10        (selects any slot in chassis 10)
10/* MODULE> chassis [2-87]    (selects chassis 2-87, all slots)
[02-87]/* MODULE> chassis *    (selects all chassis and slots)
*/* MODULE>
```

Notes on Usage

- The **chassis** command can be used together with the **slot** command to specify a particular chassis and slot location. However, it is often simpler to use the **modid** command for this purpose. See ***modid*** (on page 65) for details.
- Modspecs stay in effect when exiting and re-entering Module command mode. However, modspecs do not affect the scope of CLI, ICIM, or Terminal mode commands.
- When specifying a range of chassis or slots, the specified range need not be fully populated. For example, the chassis range [1-7] is valid even if there are fewer

than seven chassis within that range. In addition, all chassis within the specified range are included whether or not their chassis numbers are contiguous.

- For an element management system or other automatic control interface, a specific chassis and slot are required for backward compatibility, and should always be specified.
- For craft operators, ranges may be specified for all Module mode commands except for **set**.

Related Commands

slot

modid

exit

Syntax

exit

Description

The **exit** command is used to exit Module command mode to the CLI command mode for the purpose of entering CLI mode commands or selecting ICIM or Terminal command mode.

Note: The **exit** command is not recognized in CLI mode and does not result in a logout. See ***logout*** (on page 60) for details.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
*/* MODULE> exit
CLI> icim
ICIM> exit
CLI> terminal
TERMINAL> exit
CLI> module
*/* MODULE>
```

Related Commands

logout

help

Syntax

help modeOption

Description

The **help** command is used alone to display onscreen help for all Module mode commands, or with a **modeOption** parameter to display help for a single command or function.

Note: Typing a question mark (?) at the command prompt gives the same result as typing help without a mode option parameter.

Parameters

The possible values for the **modeOption** parameter and their results are listed below.

modeOption	Description
<empty>	Displays onscreen help for all recognized Module mode commands.
<commandname>	Displays onscreen help for the specified command, if recognized.
edit	Displays onscreen help for command line editing and syntax.
commands	Displays onscreen help for global commands (exit, help, who, whoami).

Access Rights Required

Read, ReadWrite, or Admin

Example

```
*/* MODULE> help

 module             - Enter module mode
 alarm              - Display active alarms
 chassis            - Set the chassis (and optionally the slot) specification
                      for module commands
 info               - Display detailed information regarding modules
 logout             - Log off this system
 manual             - Show detailed help text
 modid              - Set the chassis and slot ranges for module commands
 reset              - Reset a module to its default values
 set                - Set a value for a module
 show               - Display the values of specified parameters. If the alarm
                      param parameter is specified then the name and alarm_par
                      am parameters must also be specified. If the alarmstate,
                      control or monitor parameters are specified, then the
                      name (and only name) parameter must also be specified.
                      If the module parameter is specified, then no other
                      parameters are accepted.
 slot               - Set the slot specification for module commands

*/* MODULE>
```

Related Commands

help (CLI command mode)

help (ICIM command mode)

help (Terminal command mode)

info alarm

Syntax

info alarm alarmName detail1 detail2 . . . detailn

Description

The **info alarm** command is used to display more detailed alarm information than is returned by using the **show** command.

Parameters

The **alarmName** parameter specifies the type of alarm. The allowable alarmName values vary by module because different modules have different types of alarms. To learn about possible alarms for each module, do one of the following:

- Use the **modid** command to select a single module (by chassis and slot location), and then issue the command **alarmstate *** to list all available alarm names.
- When entering this command, do not use the letter **h** to abbreviate hysteresis, as this will instead invoke the **help** command.
- See *Module Parameter Descriptions* (on page 239) for a list of possible alarms for each module.

The **detail** parameters specify the characteristics that can be requested for each **alarmName**, as follows:

Detail parameter	Description
Hysteresis	Threshold hysteresis value.
Index	Alarm number, starting at 1, in the list of alarms.
Label	Name of the alarm.
Limitadjust	Allowed if alarm is adjustable, not allowed if not.
Majorhigh	High Major threshold.
Majorlow	Low Major threshold.
Minorhigh	High Minor threshold.
Minorlow	Low Minor threshold.
Nominal	Alarm nominal value.
Rangehi	Upper limit for this threshold.
Rangelo	Lower limit for this threshold.
Type	Alarm type (types 1, 2, and 7 are adjustable).

Detail parameter	Description
Value	Alarm state.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog illustrates the use of the **info alarm** command to view the thresholds of a post-amplifier output power alarm. Note that these thresholds are relative to the nominal alarm value.

```
02/05 MODULE> info alarm outpwra majorhigh minorhigh minorlow majorlow
hysteresis nominal

MODID NAME    MAJORHIGH MINORHIGH MINORLOW MAJORLOW HYSTERESIS NOMINAL
02/05 OutPwrA 1        0.7      -0.7     -1       0.1        17.7

SUCCESS!
02/05 MODULE>
```

Related Commands

info control

info module

info monitor

show alarmstate

show alarmparam

info control

Syntax

info control controlName detail1 detail2 . . . detailn

Description

The **info control** command is used to display more detailed control information than is returned by using the **show** command.

Parameters

The **controlName** parameter specifies the type of control. Different application modules have different types of controls, so the allowable controlName values vary by module type. For a listing of controlName values for a particular module, use the **modid** command to select a single chassis and slot, and then issue the command **show control *** to list all available control names.

The **detail** parameters specify the characteristics that can be requested for the **controlName**, and are as follows:

Detail parameter	Description
Index	Control number, starting at 1, in the list of controls.
Label	Name of the control.
Rangehi	Upper limit for this control.
Rangelo	Lower limit for this control.
Rangestep	Smallest increment allowed.
Statenames	List of symbolic control values.
Type	Control type: D(igital), F(loat), B(oolean), S(tate).
Units	Control unit.
Value	Control setting.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog illustrates the use of the **info control** command to view the **value** and **statenames** characteristics for the **mode** control:

```
20/08 MODULE> info control mode value statenames

  MODID    NAME    VALUE    STATENAMES
  20/08    Mode    Auto (2)  Cross (0), Bar (1), Auto (2)

SUCCESS!
20/08 MODULE>
```

In the example above, the control name pattern was explicit (no wildcards). The details to be listed were Value and the available StateNames (not all controls and monitors have StateNames). In this case, the value is Auto (2).

Related Commands

info alarm

info module

info monitor

show control

info module

Syntax

info module detail1 detail2 . . . detailn

Description

The **info module** command is used to display more detailed module information than is returned by using the **show** command.

Parameters

The **detail** parameter specifies the characteristics that can be requested for each **module** in the command scope, and are as follows:

Detail parameter	Description
Activerev	Active software image revision for the module.
Bootrev	Current boot image revision for the module.
CLEI	Common Language Equipment Identification code for module.
CLLI	Common Language Location Identification code for module.
Coderev	Indicates module vintage.
Datecode	Manufacturing date (encoded).
Devtype	Numeric type value used for element manager.
Downldable	Module can be downloaded with new firmware.
Inactiverev	Inactive software image revision for the module.
Mandata	Manufacturing data.
Modtype	Manufacturing data (alias for MANDATA).
Name	Name of module.
Nextimage	Image that will be active after the next reboot.
Numanalogcontrols	Number of analog controls.
Numcontrols	Total number of controls.
Numdigitalcontrols	Number of digital controls.
Nummonits	Number of monitored values.
Numofalarms	Number of alarms.
Scriptrev	Script revisions.
Selftest	Status of module self test.

Detail parameter	Description
Serial	Serial number.
Tos	Time of service.

Access Rights Required

Read, ReadWrite, or Admin

Example

The example below shows how a network management system might construct an **info module** command to determine the domain of an ICIM2.

```
CLI> module chassis * slot *

CLI> module info module devtype name exit

MODID | DEVTYPE | NAME
20/00 | 5012    | Fan Tray
20/03 | 5013    | Power Supply 3
20/05 | 1001    | 1310nm Forward Transmit
20/06 | 2002    | Forward Receiver
20/07 | 1001    | 1310nm Forward Transmit
20/08 | 4000    | Optical Switch
20/09 | 3011    | FHEDA
20/13 | 3000    | 1550nm Optical Amplifier
20/14 | 2000    | Reverse Data Receiver

SUCCESS!
CLI> logout
```

Related Commands

info alarm

info control

info monitor

show module

info monitor

Syntax

info monitor monitorname detail1 detail2 . . . detailn

Description

The **info monitor** command is used to display more detailed monitor information than is returned by using the **show** command.

Parameters

The **monitorname** parameter specifies the type of monitored information. Because different applications modules have different types of monitored parameters, the allowable monitorname values vary by module type. For a listing of monitorname values for a particular module, use the **modid** command to select a single chassis and slot, and then issue the command **show monitor *** to list all available monitor names.

The **detail** parameters specify the characteristics that can be requested for each **monitorname**, and are as follows:

Monitor Name	Description
Index	Monitor number, starting at 1, in the list of monitors.
Label	Name of monitor.
Statenames	List of symbolic values.
Type	Value type: D(igital), F(loat), B(oolean), S(tate).
Units	Units of measurement.
Value	Value of monitor.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog illustrates the use of this command:

```
01/05 MODULE> info monitor inrf index label statenames type units value

MODID   NAME   INDEX   LABEL   STATENAMES   TYPE   UNITS   VALUE
01/05   InRF   1       InRF    N/A          F      dB      0.511787

SUCCESS!
01/05 MODULE>
```

In the example above, the monitor's name pattern was explicit (no wildcards). The details to be listed were all possible monitor details for a Transmitter Input RF monitor name.

Related Commands

info alarm

info control

info module

logout

Syntax

logout

Description

The **logout** command is used to terminate the current CLI session. This command is available in every command mode.

Important:

- For Telnet operation, the computer you are using must have a network connection through which it can reach the ICIM2 using its IP address.
- No more than four Telnet sessions are allowed at one time.
- If IPsec is enabled on the ICIM2, it must also be enabled on the remote CLI user's computer.

CAUTION:

Always use the Logout command to close a serial port or Telnet CLI session. Closing a serial port session without issuing the Logout command leaves the session open for a possible future connection. This may allow unauthorized access by a new user if the previous user had a higher authorization privilege level.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
*/* MODULE> logout
connection to host lost
C:\>
```

Related Commands

exit

manual

Syntax

manual

Description

The **manual** command is used to display detailed help for Module command mode, or for another command mode if specified while another mode is active.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
20/08 MODULE> manual

Try one of these help commands for details on specific modes:
  module manual
  terminal manual
  icim manual

General Hints:

  Keywords can be abbreviated to a unique prefix. For instance
  in CLI mode, the keyword 'MODULE' can be given as just 'mo'
  or 'mod'.

  Use TAB to autocomplete a keyword.
  Use ? to list expected keywords or tokens (depends on previous input).
  Use BACKSPACE to erase previous characters.
  Use 'help edit' to display more editing commands

  Use Alarm in any mode to get a list of active alarms. When in Module
  mode, you can also narrow the list of active alarms to just those in
  the current ModSpec range. See the Module Help for further details.

  Note: entering a mode command (MODULE, ICIM, TERMINAL) enters that mode
  immediately but it is not indicated until the next prompt is displayed.

  The interface uses modes: CLI, MODULE, TERMINAL, and ICIM. The prompt
  reflects the current mode. Enter the mode name to enter that mode, and
  use EXIT to leave the mode and return to CLI mode.

To enter MODULE mode, just enter MODULE, any ModSpecs and newline.

Once in MODULE mode, the prompt will be of the form:

  X/Y MODULE>

where X is the chassis specification, and Y is the slot spec.
Changes to the ModSpecs are retained across commands.

Use Exit to leave Module mode, or Logout to exit the CLI interface
```

```
All keywords and parameters are caseless. That is, MoDuLe == MODULE == module

Module Commands:

alarm [parameters]
  Use the 'alarm' command to show all the current alarms.  This command
  works in all modes. Using the optional parameter 'domain' is the same
  as not using any parameter.  However, using the optional parameter
  'module' will display only the alarms for the currently selected module.

chassis <chassis_range> [slot [slot_range]]
  Use the 'chassis' command to specify the desired chassis number.
  The <chassis_range> parameter can be either a specific chassis number
  between 0 and 99, or it can be '*' to indicate the wildcard chassis
  selection, or it can be a range of chassis numbers.  Specify a range of
  chassis in the form '[DIGITS - DIGITS]' such as '[5 - 15]'.
  The 'chassis' command can be optionally followed by the slot command
  on the same input line.

exit
  Use the 'exit' command to return to CLI mode.  This command must be
  used before entering ICIM or TERMINAL mode.

info <parameter> <subparameters>
  Use the 'info' command to display one or more module parameter values.
  Any number of available parameters can be requested with the same command.
  The <parameter> field can be either alarm, control, monitor or module.
  Each has a different set of <subparameters>.  Following are examples:

   X/Y MODULE> info alarm <name> <alarm_param>
     where <name> is the actual alarm name such as Enable.  Wildcards are
     allowed.  For example, LasTemp* will select LasTempA and LasTempB.  The
     following values are allowed for alarm_param:
     hysteresis          - The alarm threshold hysteresis value
     index              - The alarm number, starting at 1, in the list of
                         alarms
     label              - The name of the alarm
     limitadjust         - Specifies whether the alarm has adjustable
                         threshold values
     majorhigh          - The high critical alarm threshold value; must be
                         less than or equal to the upper limit for this
                         alarm
     majorlow           - The low critical alarm threshold value; must be
                         greater than or equal to the lower limit for this
                         alarm
     minorhigh          - The high non-critical alarm threshold value
     minorlow           - The low non-critical alarm threshold value
     nominal            - The alarm nominal value
     rangehi            - The upper limit for this alarm threshold
     rangelo            - The lower limit for this alarm threshold
     type               - The alarm type (1, 2 & 7 are adjustable)
     value              - The current alarm state

   X/Y MODULE> info control <name> <control_param>
     where <name> is the actual control name such as Enable.  Wildcards are
     allowed.  For example, Service* will select ServiceA and ServiceB.  The
     following values are allowed for control_param:
     index              - The control number, starting at 1, in the list of
                         controls
     label              - The name of the control
     rangehi             - The upper limit for this control
     rangelo             - The lower limit for this control
     rangestep           - The smallest increment allowed for the control
     statenames          - The list of symbolic control values
     type               - The control type: D(igital), F(loat), B(oolean),
                         S(tate)
     units              - The units for the control
     value              - The current control setting
```

```
  X/Y MODULE> info monitor <name> <monitor_param>
    where <name> is the actual monitor name such as Enable.  Wildcards are
    allowed.  For example, LasTemp* will select LasTempA and LasTempB.  The
    following values are allowed for monitor_param:
    index              - The monitor number, starting at 1, in the list
                         of monitors
    label              - The name of the monitor
    statenames          - The list of symbolic values
    type               - The value type: D(igital), F(loat), B(oolean),
                         S(tate)
    units              - The units of measurement for the monitor
    value              - The current value of the monitor

  X/Y MODULE> info module <module_param>
    where <module_param> is one of the following:
    activerev           - The active software revision
    bootrev            - The current boot image revision
    clei               - The Current Language Equipment ID code
    clli               - The Current Language Locator ID code
    coderev            - The code revision
    datecode           - The [encoded] manufacturing date
    devtype            - The numeric type value used for element managers
    downloadable        - Whether a module can be downloaded with new
                         firmware
    inactiverev         - The inactive software image revision
    mandata            - The [encoded] manufacturing data
    modtype            - The manufacturing data (same as mandata)
    name               - The module name
    nextimage           - The flash bank where the active image resides
    numanalogcontrols    - The number of analog controls
    numcontrols         - The total number of controls
    numdigitalcontrols   - The number of digital controls
    nummonits          - The number of monitored values
    numofalarms         - The number of alarms
    scriptrev          - The script revision(s)
    selftest           - The status of the module's self test
    serial             - The serial number
    tos                - The time of service

logout
  Use the 'logout' command to logout of the CLI session.  If the
  session is a telnet session, it will be closed.  If the session
  is the local console port, the login prompt will be given.

manual
  Use the 'manual' command to display this help.

modid <mod_range>
  Use the 'modid' command to specify the ModSpec of the desired module(s).
  With this command, the user can specify the chassis and the slot selection
  with a single command.  The <mod_range> parameter can take one of three
  forms.  It can be a specific chassis and slot combination such as 0212,
  where 02 is the chassis number and 12 is the slot number.  It can be a
  '*' to indicate the wildcard modspec selections.  Or it can be a range of
  chassis and slots, such as '[1-13]/[4-6]'.

reset
  Use the 'reset' command to set all the controls and alarms on a
  module to the factory defaults. A dialog is presented to confirm this
  potentially dangerous action and it can be executed only by an
  Adminuser. This command is only supported on the new CCB3 modules and
  cannot be executed unless only a single module is specified in the modspec.

set <parameters> <subparameters>
  Use the 'set' command to set values on the module.  There are three
  types of parameters available for setting:
  alarmparam           - An alarm parameter such as a threshold value
  control             - A control value
  module              - A module parameter, currently only the CLLI
  The subparameters vary based on the parameter specified.  Here are some
  examples of each type.
```

```
  X/Y MODULE> set alarmparam <name> <alarm_param> <value>
    where <name> is the name of the alarm and <alarm_param> is one of the
    following values:
    hysteresis          - The alarm threshold hysteresis value
    majorhigh           - The high critical alarm threshold value; must be
                        less than or equal to the upper limit for this
                        alarm
    majorlow            - The low critical alarm threshold value; must be
                        greater than or equal to the lower limit for this
                        alarm
    minorhigh           - The high non-critical alarm threshold value
    minorlow            - The low non-critical alarm threshold value
    and <value> is the new value to set.

  X/Y MODULE> set control <name> <value>
    where <name> is the name of the control and <value> is the new value.

  X/Y MODULE> set module clli <location>
    where <location> is the new CLLI code string.

show <type> [<name> <parameter>]
  Use the 'show' command to display one or more module parameter values.
  Any number of available parameters can be requested with the same command.
  The <name> field can be either alarmparam, alarmstate, control, monitor or
  module.  Following are examples:

   X/Y MODULE> show alarmparam <name> <alarm_param>
     where <name> is the name of the alarm and <alarm_param> is the parameter
     of interest (hysteresis, majorhigh, minorhigh, majorlow, minorlow).

   X/Y MODULE> show alarmstate <name>
     where <name> is the name of the alarm.

   X/Y MODULE> show control <name>
     where <name> is the name of the control.

   X/Y MODULE> show monitor <name>
     where <name> is the name of the monitor.

   X/Y MODULE> show module
     This command will show the ModID, ModType, Name and Serial Number
     for this module.

slot <slot_range>
  Use the 'slot' command to specify the desired slot number.
  The <slot_range> parameter can be either a specific slot number
  between 0 and 47, or it can be '*' to indicate the wildcard slot
  selection, or it can be a range of slot numbers.  Specify a range of
  slots in the form '[DIGITS - DIGITS]' such as '[5 - 12]'.

20/08 MODULE>
```

Related Commands

manual (CLI command mode)

manual (ICIM command mode)

manual (Terminal command mode)

help

modid

Syntax

modid modIdValue

Description

The **modid** command is used to specify a chassis and slot location using a single **modidValue** parameter.

Parameters

The **modidValue** parameter can take any of these forms:

- A 4-digit number signifying a single chassis and slot location, such as 0512 for chassis 5, slot 12.
- Bracketed numbers separated by a / symbol, representing a range of chassis and slot locations, such as [1-5]/[4-13] for chassis 1 through 5, slots 4 through 13.
- A wildcard character (*), indicating all chassis and slot locations within the ICIM2 domain.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog illustrates each of the **modid** entry formats described above.

```
[10-34]/01 MODULE> modid [1-5]/[4-13]  (selects chassis 1-5, slots 4-13)
[01-05]/[04-13] MODULE> modid 0512     (selects chassis 5, slot 12)
05/12 MODULE> modid *                (selects all chassis and slots)
*/* MODULE>
```

Notes on Usage

- The **modid** command can be somewhat faster to enter than separate **chassis** and **slot** commands. However, the resulting dialog may be less readable than when using the **chassis** and **slot** commands, either separately or together on one command line.

- Modspecs stay in effect when exiting and re-entering Module command mode. However, modspecs do not affect the scope of CLI, ICIM, or Terminal mode commands.
- When specifying a range of chassis or slots, the specified range need not be fully populated. For example, the chassis range [1-7] is valid even if there are fewer than seven chassis within that range. In addition, all chassis within the specified range are included whether or not their chassis numbers are contiguous.
- For an element management system or other automatic control interface, a specific chassis and slot are required for backward compatibility, and should always be specified.
- For craft operators, ranges may be specified for all Module mode commands except for **set**.

Related Commands

chassis

slot

reset

Syntax

reset

Description

The **reset** command is used to set all controls and alarms in a specified module to their factory defaults.

Because this action has potentially severe consequences, this command can only be executed by an Admin user as explained in ***User Authorization*** (on page 7), and then only for a specific chassis and module. It is not possible to reset a range of modules, a chassis, or a range of chassis using a single reset command. When you enter a **reset** command, a dialog is presented for confirmation. You must confirm your intention by typing **yes** (typing Y alone is not sufficient).

Note: In the factory default state, all pre-amplifier and post-amplifier modules have their outputs disabled. Thus, resetting these modules results in loss of output signal.

Parameters

None

Access Rights Required

Admin

Example

```
*/* MODULE> modid 0105

01/05 MODULE> reset

The module control & alarm settings are about to be reset to factory defaults.
Module outputs may become disabled as a result. Are you sure you want to
proceed (Yes/No)? yes

The module has been reset to factory defaults. Please allow several
minutes for module rediscovery by the ICIM2 and then re-enable module
outputs as desired.

SUCCESS!
01/05 MODULE>
```

Related Commands

set control

set alarmparam

set alarmparam

Syntax

set alarmparam alarmName alarmParamName alarmParamValue

Description

The **set alarmparam** command can be used to change the values of certain types of alarm parameters. The **set alarmparam** command is typically used in conjunction with the **info** command to first learn about alarm type and status, and then change the alarm status where appropriate and allowed.

Alarm Types

Alarms are classified by type to characterize their overall behavior. The table below summarizes the possible types of alarms in terms of class (Boolean vs. Non-Boolean), impact (User vs. Module), and threshold implementation (Relative vs. Absolute).

Alarm Type	Class	Impact	Threshold
1 *	Non-Boolean	User	Relative
2 *	Non-Boolean	User	Absolute
3	Non-Boolean	Module	Relative
4	Non-Boolean	Module	Absolute
5	Boolean	User	na
6	Boolean	Module	na
7 *	Non-Boolean	User	Absolute
8	Non-Boolean	Module	Absolute

* Only these alarms may be changed by a user.

Boolean alarms (Types 5 and 6) can have either of two states, **OK** or **Fault**. Non-Boolean alarms (Types 1, 2, 3, 4, 7, and 8) can have one of five states:

- **OK** - no alarm condition exists
- **majorlow** - low threshold setting for a Major alarm exceeded
- **minorlow** - low threshold setting for a Minor alarm exceeded
- **minorhigh** - high threshold setting for a Minor alarm exceeded
- **majorhigh** - high threshold setting for a Major alarm exceeded

Non-Boolean alarms also have a hysteresis setting that can be used to adjust the amount of change required to switch states. For possible hysteresis values, see ***Module Parameter Descriptions*** (on page 239). For additional information, see the **SNMP Management** section of the installation guide for your system release.

With regard to the **set alarmparam** command, alarm types 1, 2, and 7 in the table above are the only types with thresholds that may be changed by a user. These alarms also share in common that they will not cause a module to shut down. Any attempt to use **set alarmparam** to change the parameter of an alarm not of type 1, 2, or 7 will result in an error message.

Parameters

The possible values for **alarmName**, **alarmParamName**, and **alarmParamValue** depend on the application module in question. The following tables identify the alarms for each application module. For details on alarm parameters and their possible values, see ***Module Parameter Descriptions*** (on page 239).

Note:

- When selecting parameters for this command, one or more wildcard characters (*) may be used to specify a range of matching responses.
- When entering this command, do not use the letter **h** to abbreviate hysteresis, as this will instead invoke the **help** command.

Fan Tray (devtype: 5012)

alarmName	Description
FansOK	Fan operating status.
ChasTemp	Chassis fan tray temperature.

Power Supply, Slot 1 (devtype: 5013)

alarmName	Description
Ps1PwrIn	Power supply 1 input power status.
Ps1+24	Power supply 1 +24 V bus voltage.
Ps1+5VDC	Power supply 1 +5 V bus voltage.
Ps1-5VDC	Power supply 1 -5 V bus voltage.

Power Supply, Slot 3 (devtype: 5013)

alarmName	Description
Ps3PwrIn	Power supply 3 input power status.
Ps3+24	Power supply 3 +24 V bus voltage.
Ps3+5VDC	Power supply 3 +5 V bus voltage.

alarmName	Description
Ps3-5VDC	Power supply 3 -5 V bus voltage.

Transmitter (devtype: 1033)

alarmName	Description
LasBias	Transmitter laser bias current.
LasTemp	Transmitter laser temperature.
ModTemp	Transmitter module temperature.
Psbs2G	Transmitter 2 GHz SBS power level.
PLLOCK	Transmitter phase locked loop status.
CPLock	Transmitter constant power lock status.
InRF	Transmitter relative RF input power.
OutPwr	Transmitter optical output power.
PsOk	Transmitter power supply input voltages.
TxEnable	Transmitter output enable.
CwModSta	Transmitter continuous wave mode.

Pre-Amplifier (devtype: 3030)

alarmName	Description
PsOk	Pre-amplifier power supply input voltages.
OutPwr	Pre-amplifier optical output power.
IntPs	Pre-amplifier internal power supplies.
Enable	Pre-amplifier output enable.
LasTemp	Pre-amplifier laser temperature.
LasBias	Pre-amplifier laser bias current.
InPwr	Pre-amplifier input optical power.
Service	Pre-amplifier Service mode.

Post-Amplifier (devtype: 3031)

alarmName	Description
PsOk	Post-amplifier power supply input voltages.
OutPwrA	Post-amplifier optical output power, top half.
OutPwrB	Post-amplifier optical output power, bottom half.

alarmName	Description
IntPs	Post-amplifier internal power supplies.
Enable	Post-amplifier output enable.
LasTempA	Post-amplifier laser temperature, top half.
LasTempB	Post-amplifier laser temperature, bottom half.
LasBiasA	Post-amplifier laser bias, top half.
LasBiasB	Post-amplifier laser bias, bottom half.
InPwr	Post-amplifier optical input power.
ServiceA	Post-amplifier Service Mode, top half.
ServiceB	Post-amplifier Service Mode, bottom half.

Optical Switch (devtype: 4011)

alarmName	Description
PInLoss3	Optical switch input power, port 3.
PInLoss4	Optical switch input power, port 4.
TempAlm	Optical switch module temperature.
BothDark	Optical switch input power, ports 3 and 4.
NoSwitch	Optical switch switch status.
PsOk	Optical switch power supply input voltages.
XSPwr	Optical switch excessive input power.

Access Rights Required

ReadWrite or Admin

Examples

The following sample dialog shows the **info** command can be used to first learn about all (*) alarms in Module 2006, i.e., the module installed in chassis 20, slot 06:

```
20/06 MODULE> info alarm * type majorlow minorlow majorhigh minorhigh

  MODID   NAME     TYPE   MAJORLOW   MINORLOW   MAJORHIGH   MINORHIGH
  20/06   PsOk     6      N/A        N/A        N/A         N/A
  20/06   OutPwr   1      -1         -0.7       1           0.7
  20/06   IntPs    6      N/A        N/A        N/A         N/A
  20/06   Enable   6      N/A        N/A        N/A         N/A
  20/06   LasTemp  3      -20        -15        20          15
  20/06   LasBias  1      -2         -1         -0.001      -0.01
  20/06   InPwr    1      -16        -5         45          25
  20/06   Service  5      N/A        N/A        N/A         N/A

SUCCESS!
20/06 MODULE>
```

This response shows that the OutPwr, LasTemp, LasBias, and InPwr alarms all have majorlow and majorhigh parameters. However, only InPwr, OutPwr, and LasBias can be changed, as LasTemp is of type 3 rather than 1, 2, or 7.

The following sample dialog shows how a craft operator would set the **majorhigh** parameter of **outpwr** to 35, and then confirm the change.

```
20/06 MODULE> set alarmparam outpwr majorhigh 35

SUCCESS!
20/06 MODULE> info alarm * type majorhigh

  MODID    NAME     TYPE    MAJORHIGH
  20/06    PsOk     6       N/A
  20/06    OutPwr   1       35
  20/06    IntPs    6       N/A
  20/06    Enable   6       N/A
  20/06    LasTemp  3       15
  20/06    LasBias  1       -0.01
  20/06    InPwr    1       25
  20/06    Service  5       N/A

SUCCESS!
20/06 MODULE>
```

Related Commands

info alarm

show alarmparam

set control

Syntax

set control controlName controlValue

Description

The **set control** command is followed by two additional arguments: **controlName** identifies the control parameter, and **controlValue** specifies the value to be assigned.

Important: To avoid possible system disruption, broadcast **set** commands are not supported. This means that the **set control** command can only be applied to one module (chassis and slot number) at a time. If a specific chassis and slot number are not specified in advance, the CLI interpreter will disallow the command. In addition, the name of the control to be changed must be explicit; no wildcard characters are permitted.

Control Types

Control parameters are classified as type F (floating-point) or type S (state) to characterize the types of variables they control. In general:

- Type F controls are numeric values that can vary between maximum and minimum thresholds. The adjustment increments are set by separate hysteresis values for each control.
- Type S controls are state variables that have a limited range of discrete values such as On or Off, Master or Slave, Auto or Manual, and so on. The set of possible values is defined as appropriate for each control.

Parameters

The possible values for **controlName** and **controlValue** depend on the application module in question. The following tables identify the controls for each application module along with their types and possible values.

Note: When selecting control parameters for this command, one or more wildcard characters (*) may be used to specify a range of matching responses.

Transmitter (devtype: 1033)

Control	Description	Type	Possible Values
Enable	Enables or disables the laser.	S	On (1), Off (0)
LenMode	Fine tunes for length.	S	On (1) for Super Trunk links, Off (0) for Edge Modulation links

Control	Description	Type	Possible Values
OMISet	Sets the OMI level; only when AGC ON.	F	-6.0 dB to +1.0 dB in 0.5 dB steps
CWMode	CWMode ON reduces InRF monitor value by 2 dB to indicate actual modulation level.	S	On (1), Off (0)
Mute	Enables (On) or disables (Off) alarm-based muting.	S	On (1), Off (0)

Pre-Amplifier (devtype: 3030)

Control	Description	Type	Possible Values
Enable	Enables or disables the laser.	S	On (1), Off (0)
SetAtten	Attenuates optical output power.	F	0 to 3 dB in 1.0 dB steps
Master	When set to Master, pre-amp is controlled by Enable; if Slave, pre-amp is controlled by Enable and CNT_IN_1.	S	Master (1), Slave (0)
LoInpEna	Enables output during low optical power input.	S	On (1), Off (0)
Service	Sets optical output power to +15 dBm for servicing.	S	On (1), Off (0)

Post-Amplifier (devtype: 3031)

Control	Description	Type	Possible Values
Enable	Enables or disables the laser.	S	On (1), Off (0)
SetAtten	Attenuates optical output power.	F	0 to 3 dB in 0.5 dB steps
Master	When set to Master, post-amp is controlled by Enable; if Slave, post-amp is controlled by Enable and CNT_IN_1.	S	Master (1), Slave (0)
ServiceA	Sets optical output A power to +15 dBm for servicing.	S	On (1), Off (0)
ServiceB	Sets optical output B power to +15 dBm for servicing.	S	On (1), Off (0)

Optical Switch (devtype: 4011)

Control	Description	Type	Possible Values
Mode	Selects automatic or manual switch control.	S	Auto (2), Bar (1), Cross (0)

Wavelen	Wavelength for both inputs.	S	1550nm (1), 1310nm (0)
NomPin3	Nominal input power at Port 3.	F	-8 dBm to +23 dBm in 0.1 dB steps
NomPin4	Nominal input power at Port 4.	F	-8 dBm to +23 dBm in 0.1 dB steps
Delta	Value in dB relative to nominal below which the input must fall to switch.	F	1 to 10 in 0.1 steps
HystAmpl	Value above which the input must rise to start the hysteresis timer to restore the original switch position (revert in auto).	F	0.5 to 9.5 in 0.1 steps
HystTime	Length of time primary power is above the restore threshold before switch to primary (revert in auto).	F	0 to 600 in steps of 1 second
Revert	Allows switch to revert to primary after power is restored.	S	Auto (1), Manual (0)
PrimInp	Selects primary input (auto mode).	S	Port_4 (1), Port_3 (0)
DfltSw	Selects the normal switch position (auto mode).	S	Bar (1), Cross (0)

Access Rights Required

ReadWrite or Admin

Example

The following example shows how a craft operator might use **set control** to disable the module in slot 5 of chassis 20, and then use **show control** to confirm the change.

```
*/05 MODULE> module chassis 20
20/05 MODULE> set control enable 0
SUCCESS!
20/05 MODULE> show control enable
  MODID    NAME    SETTINGS    UNITS
  20/05    Enable   0
SUCCESS!
20/05 MODULE>
```

This example shows what would happen if the operator had not specified the chassis number in advance:

```
*/05 MODULE> set control enable 0
Error: This command can only be used at an explicit chassis and slot prompt
Set the chassis and slot to specific values before using this command
*/05 MODULE>
```

Related Commands

show control

set module

Syntax

set module CLLI clliString

Description

The **set module** command is used to define a Common Language Location Identifier (CLLI) code for a specified module. This helps ensure compatibility with telecommunications element management systems that use CLLI codes to identify and geographically locate devices. Once defined, the **set module** command can be used to refresh or modify the CLLI code for each module as needed.

Note: The **set module** command is only supported by current generation application modules having firmware version CCB3. To verify module firmware versions, use the ICIM mode **show domain** command to display a parameter listing for all module parameters in the ICIM2 domain, and then confirm the value CF_CCB3 in the CODEREV column of the listing. For further details, see ***show domain*** (on page 136).

Parameters

The **clliString** parameter can be any string of up to 20 characters. The string may include space characters if surrounded by quote symbols (e.g., "with space"). The Telcordia standard specifies an 11-character alphanumeric code. For additional CLLI information, visit the Telcordia web site at the following URL:

- http://www.telcordia.com

Access Rights Required

ReadWrite or Admin

Examples

The sample dialog below shows how an element management system might set the CLLI code for an optical switch module located in chassis 10, slot 5 in central office 56 in Denver, Colorado:

```
*/* MODULE> chassis 10 slot 5

10/05 MODULE> set module CLLI DNVRCO56OSW

SUCCESS!
MODULE>
```

The next example shows how an element management system might include space characters in the CLLI code shown above:

```
*/* MODULE> chassis 10 slot 5

10/05 MODULE> set module CLLI "DNVR CO 56OSW"

SUCCESS!
MODULE> info module clli

  MODID  CLLI
  02/11  DNVR CO 560SW

SUCCESS!
02/11 MODULE>
```

Related Commands

info module

show alarmparam

Syntax

show alarmparam alarmName alarmParamName

Description

The **show alarmparam** command is used to select a particular alarm (**alarmName**) and display the value of a specified parameter for that alarm (**alarmParamName**).

Alarm parameters are settings that control when an alarm occurs, its severity, and the size of the steps used to adjust alarm threshold settings.

Parameters

The **alarmParamName** parameter can have any of the following values:

alarmParamName	Description
hysteresis	Smallest unit of adjustment for alarm threshold.
majorhigh	High threshold setting for a Major alarm.
majorlow	Low threshold setting for a Major alarm.
minorhigh	High threshold setting for a Minor alarm.
minorlow	Low threshold setting for a Minor alarm.

The possible values for **alarmName** depend on the application module in question. The following tables identify the alarms for each application module. For details on alarm parameters and their possible values, see ***Module Parameter Descriptions*** (on page 239).

Note:

- When selecting parameters for this command, one or more wildcard characters (*) may be used to specify a range of matching responses.
- When entering this command, do not use the letter **h** to abbreviate hysteresis, as this will instead invoke the **help** command.

Fan Tray (devtype: 5012)

alarmName	Description
FansOK	Fan operating status.
ChasTemp	Chassis fan tray temperature.

Power Supply, Slot 1 (devtype: 5013)

alarmName	Description
Ps1PwrIn	Power supply 1 input power status.
Ps1+24	Power supply 1 +24 V bus voltage.
Ps1+5VDC	Power supply 1 +5 V bus voltage.
Ps1-5VDC	Power supply 1 -5 V bus voltage.

Power Supply, Slot 3 (devtype: 5013)

alarmName	Description
Ps3PwrIn	Power supply 3 input power status.
Ps3+24	Power supply 3 +24 V bus voltage.
Ps3+5VDC	Power supply 3 +5 V bus voltage.
Ps3-5VDC	Power supply 3 -5 V bus voltage.

Transmitter (devtype: 1033)

alarmName	Description
LasBias	Transmitter laser bias current.
LasTemp	Transmitter laser temperature.
ModTemp	Transmitter module temperature.
Psbs2G	Transmitter 2 GHz SBS power level.
PLLOCK	Transmitter phase locked loop status.
CPLock	Transmitter constant power lock status.
InRF	Transmitter relative RF input power.
OutPwr	Transmitter optical output power.
PsOk	Transmitter power supply input voltages.
TxEnable	Transmitter output enable.
CwModSta	Transmitter continuous wave mode.

Pre-Amplifier (devtype: 3030)

alarmName	Description
PsOk	Pre-amplifier power supply input voltages.
OutPwr	Pre-amplifier optical output power.
IntPs	Pre-amplifier internal power supplies.

alarmName	Description
Enable	Pre-amplifier output enable.
LasTemp	Pre-amplifier laser temperature.
LasBias	Pre-amplifier laser bias current.
InPwr	Pre-amplifier input optical power.
Service	Pre-amplifier Service mode.

Post-Amplifier (devtype: 3031)

alarmName	Description
PsOk	Post-amplifier power supply input voltages.
OutPwrA	Post-amplifier optical output power, top half.
OutPwrB	Post-amplifier optical output power, bottom half.
IntPs	Post-amplifier internal power supplies.
Enable	Post-amplifier output enable.
LasTempA	Post-amplifier laser temperature, top half.
LasTempB	Post-amplifier laser temperature, bottom half.
LasBiasA	Post-amplifier laser bias, top half.
LasBiasB	Post-amplifier laser bias, bottom half.
InPwr	Post-amplifier optical input power.
ServiceA	Post-amplifier Service Mode, top half.
ServiceB	Post-amplifier Service Mode, bottom half.

Optical Switch (devtype: 4011)

alarmName	Description
PInLoss3	Optical switch input power, port 3.
PInLoss4	Optical switch input power, port 4.
TempAlm	Optical switch module temperature.
BothDark	Optical switch input power, ports 3 and 4.
NoSwitch	Optical switch switch status.
PsOk	Optical switch power supply input voltages.
XSPwr	Optical switch excessive input power.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following example shows the kind of information returned by this command.

```
*/* MODULE> show alarmparam *pwr minorhigh

  MODID     NAME      MINORHIGH
  20/05     OutPwr    1
  20/06     InPwr     5
  20/06     MaxInPwr  N/A

SUCCESS!
*/* MODULE>
```

Note:

The returned value of N/A shown above indicates that the alarm does not have the requested parameter.

Some alarm values can also be changed by a properly authorized craft operator or element management system. See ***set alarmparam*** (on page 69) for details.

Related Commands

show control

show module

show monitor

show alarmstate

set alarmparam

show alarmstate

Syntax

show alarmstate alarmName

Description

The **show alarmstate** command is used to display the specified states of specified active alarms. The **alarmName** parameter identifies the alarm or alarms to be displayed.

Parameters

The values possible for the **alarmName** parameters depends on the application module in question. The following tables identify the alarms for each application module along with their alarm types and possible alarm state values.

Note:

- When selecting parameters for this command, one or more wildcard characters (*) may be used to specify a range of matching responses.
- For information on the alarm types listed below, see ***show alarmparam*** (on page 80).

Fan Tray (devtype: 5012)

alarmName	Description
FansOK	Fan operating status.
ChasTemp	Chassis fan tray temperature.

Power Supply, Slot 1 (devtype: 5013)

alarmName	Description
Ps1PwrIn	Power supply 1 input power status.
Ps1+24	Power supply 1 +24 V bus voltage.
Ps1+5VDC	Power supply 1 +5 V bus voltage.
Ps1-5VDC	Power supply 1 -5 V bus voltage.

Power Supply, Slot 3 (devtype: 5013)

alarmName	Description
Ps3PwrIn	Power supply 3 input power status.

alarmName	Description
Ps3+24	Power supply 3 +24 V bus voltage.
Ps3+5VDC	Power supply 3 +5 V bus voltage.
Ps3-5VDC	Power supply 3 -5 V bus voltage.

Transmitter (devtype: 1033)

alarmName	Description
LasBias	Transmitter laser bias current.
LasTemp	Transmitter laser temperature.
ModTemp	Transmitter module temperature.
Psbs2G	Transmitter 2 GHz SBS power level.
PLLOCK	Transmitter phase locked loop status.
CPLock	Transmitter constant power lock status.
InRF	Transmitter relative RF input power.
OutPwr	Transmitter optical output power.
PsOk	Transmitter power supply input voltages.
TxEnable	Transmitter output enable.
CwModSta	Transmitter continuous wave mode.

Pre-Amplifier (devtype: 3030)

alarmName	Description
PsOk	Pre-amplifier power supply input voltages.
OutPwr	Pre-amplifier optical output power.
IntPs	Pre-amplifier internal power supplies.
Enable	Pre-amplifier output enable.
LasTemp	Pre-amplifier laser temperature.
LasBias	Pre-amplifier laser bias current.
InPwr	Pre-amplifier input optical power.
Service	Pre-amplifier Service mode.

Post-Amplifier (devtype: 3031)

alarmName	Description
PsOk	Post-amplifier power supply input voltages.

alarmName	Description
OutPwrA	Post-amplifier optical output power, top half.
OutPwrB	Post-amplifier optical output power, bottom half.
IntPs	Post-amplifier internal power supplies.
Enable	Post-amplifier output enable.
LasTempA	Post-amplifier laser temperature, top half.
LasTempB	Post-amplifier laser temperature, bottom half.
LasBiasA	Post-amplifier laser bias, top half.
LasBiasB	Post-amplifier laser bias, bottom half.
InPwr	Post-amplifier optical input power.
ServiceA	Post-amplifier Service Mode, top half.
ServiceB	Post-amplifier Service Mode, bottom half.

Optical Switch (devtype: 4011)

alarmName	Description
PInLoss3	Optical switch input power, port 3.
PInLoss4	Optical switch input power, port 4.
TempAlm	Optical switch module temperature.
BothDark	Optical switch input power, ports 3 and 4.
NoSwitch	Optical switch switch status.
PsOk	Optical switch power supply input voltages.
XSPwr	Optical switch excessive input power.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following example shows the kinds of information returned by this command.

```
*/* MODULE> show alarmstate *pwr

  MODID     NAME     STATE
  20/05     OutPwr   0 (major low)
  20/06     InPwr    0 (major low)
  20/06     MaxInPwr 0 (ok)
  20/07     OutPwr   2 (ok)
  20/08     XSPwr    0 (ok)
  20/13     OutPwr   0 (major low)
  20/13     InPwr    0 (major low)

SUCCESS!
*/* MODULE>
```

Note: The information returned by the **show alarmstate** command includes both the state value and how to interpret it.

Related Commands

show control

show module

show monitor

show alarmparam

show control

Syntax

show control controlName

Description

The **show control** command is used to display the values of all control parameters in the range indicated by **controlName**.

Control Types

Control parameters are classified as type F (floating-point) or type S (state) to characterize the types of variables they control. In general:

- Type F controls are numeric values that can vary between maximum and minimum thresholds. The adjustment increments are set by separate hysteresis values for each control.
- Type S controls are state variables that have a limited range of discrete values such as On or Off, Master or Slave, Auto or Manual, and so on. The set of possible values is defined as appropriate for each control.

Parameters

The values possible for the **controlName** parameter depend on the application module in question. The following tables identify the controls for each application module along with their types and possible values.

Note: When selecting control parameters for this command, one or more wildcard characters (*) may be used to specify a range of matching responses.

Transmitter (devtype: 1033)

Control	Description	Type	Possible Values
Enable	Enables or disables the laser.	S	On (1), Off (0)
LenMode	Fine tunes for length.	S	On (1) for Super Trunk links, Off (0) for Edge Modulation links
OMISet	Sets the OMI level; only when AGC ON.	F	-6.0 dB to +1.0 dB in 0.5 dB steps
CWMode	CWMode ON reduces InRF monitor value by 2 dB to indicate actual modulation level.	S	On (1), Off (0)

Control	Description	Type	Possible Values
Mute	Enables (On) or disables (Off) alarm-based muting.	S	On (1), Off (0)

Pre-Amplifier (devtype: 3030)

Control	Description	Type	Possible Values
Enable	Enables or disables the laser.	S	On (1), Off (0)
SetAtten	Attenuates optical output power.	F	0 to 3 dB in 1.0 dB steps
Master	When set to Master, pre-amp is controlled by Enable; if Slave, pre-amp is controlled by Enable and CNT_IN_1.	S	Master (1), Slave (0)
LoInpEna	Enables output during low optical power input.	S	On (1), Off (0)
Service	Sets optical output power to +15 dBm for servicing.	S	On (1), Off (0)

Post-Amplifier (devtype: 3031)

Control	Description	Type	Possible Values
Enable	Enables or disables the laser.	S	On (1), Off (0)
SetAtten	Attenuates optical output power.	F	0 to 3 dB in 0.5 dB steps
Master	When set to Master, post-amp is controlled by Enable; if Slave, post-amp is controlled by Enable and CNT_IN_1.	S	Master (1), Slave (0)
ServiceA	Sets optical output A power to +15 dBm for servicing.	S	On (1), Off (0)
ServiceB	Sets optical output B power to +15 dBm for servicing.	S	On (1), Off (0)

Optical Switch (devtype: 4011)

Control	Description	Type	Possible Values
Mode	Selects automatic or manual switch control.	S	Auto (2), Bar (1), Cross (0)
Wavelen	Wavelength for both inputs.	S	1550nm (1), 1310nm (0)
NomPin3	Nominal input power at Port 3.	F	-8 dBm to +23 dBm in 0.1 dB steps

NomPin4	Nominal input power at Port 4.	F	-8 dBm to +23 dBm in 0.1 dB steps
Delta	Value in dB relative to nominal below which the input must fall to switch.	F	1 to 10 in 0.1 steps
HystAmpl	Value above which the input must rise to start the hysteresis timer to restore the original switch position (revert in auto).	F	0.5 to 9.5 in 0.1 steps
HystTime	Length of time primary power is above the restore threshold before switch to primary (revert in auto).	F	0 to 600 in steps of 1 second
Revert	Allows switch to revert to primary after power is restored.	S	Auto (1), Manual (0)
PrimInp	Selects primary input (auto mode).	S	Port_4 (1), Port_3 (0)
DfltSw	Selects the normal switch position (auto mode).	S	Bar (1), Cross (0)

Access Rights Required

Read, ReadWrite, or Admin

Examples

```
*/* MODULE> show control enable

  MODID    NAME    SETTING    UNITS
  20/05    Enable   On (1)
  20/06    Enable   On (1)
  20/07    Enable   On (1)
  20/09    Enable   On (1)
  20/13    Enable   Off (0)

SUCCESS!
*/* MODULE> show control *serv*

  MODID    NAME    SETTING    UNITS
  01/07    Service  Off (0)
  01/08    ServiceA Off (0)
  01/08    ServiceB On (1)

SUCCESS!
*/* MODULE>
```

Related Commands

show module

show monitor

show alarmstate

show alarmparam

show module

Syntax

show module

Description

The **show module** command is used to generate a list of information for specific modules to help with their physical identification. Modules are specified by first changing to the desired Module prompt (modspec), and then entering the **show module** command.

Parameters

None; however, the modspec is used to specify the scope of the command within the ICIM2 domain. See ***About Modspecs*** (on page 41) for further information.

Access Rights Required

Read, ReadWrite, or Admin

Examples

The following example shows how a craft operator might display information for the modules in slots 3, 4, and 5 of all chassis in the ICIM2 domain.

```
*/* MODULE> slot [3-5]

*/[03-05] MODULE> show module

  MODID     MODTYPE     NAME                      SERIAL
  20/03     Prisma II   Power Supply / Fan Tray     ^ABCDEFG
  20/05     24x17.65    1550nm Post-Amp FTTP       ^AAFDBCO

SUCCESS!
*/[03/05] MODULE>
```

Related Commands

show control

show monitor

show alarmstate

show alarmparam

show monitor

Syntax

show monitor monitorName

Description

The **show monitor** command is used to display the values of all active alarms in the range indicated by **monitorName**.

Monitored Parameter Types

Monitored parameters are classified as type F (floating-point) or type S (state) to characterize the types of variables they monitor. In general:

- Type F parameters monitor numeric values that can vary between maximum and minimum thresholds. The adjustment increments are set by separate hysteresis values for each parameter.
- Type S parameters monitor state variables that have a limited range of discrete values such as On or Off, Master or Slave, Auto or Manual, and so on. The set of possible values is defined as appropriate for each parameter.

Parameters

The values possible for the **monitorName** parameter depend on the application module in question. The following tables list the parameters for each application module and identify their types and possible values.

Note: When selecting parameters for this command, one or more wildcard characters (*) may be used to specify a range of matching responses.

Fan Tray (devtype: 5012)

Parameter	Description	Type	Possible Values
FansOn	Fan operating status.	S	On (1), Off (0)
ChasTemp	Chassis fan tray temperature.	F	Analog value
Chas+24V	Chassis +24V rail.	F	Analog value
Chas+5V	Chassis +5V rail.	F	Analog value
Chas-5V	Chassis -5V rail.	F	Analog value
Ps1Inst	Power supply 1 input power status.	S	Yes (1), No (0)
Ps3Inst	Power supply 3 input power status.	S	Yes (1), No (0)

Power Supply Slot 1 (devtype: 5013)

Parameter	Description	Type	Possible Values
Ps1+24V	Power supply 1 +24 V bus voltage.	F	Analog Value
Ps1+5V	Power supply 1 +5 V bus voltage.	F	Analog Value
Ps1-5V	Power supply 1 -5V bus voltage.	F	Analog Value
Ps1Temp	Power supply 1 internal temperature.	F	Analog Value

Power Supply Slot 3 (devtype: 5013)

Parameter	Description	Type	Possible Values
Ps3+24V	Power supply 3 +24 V bus voltage.	F	Analog Value
Ps3+5V	Power supply 3 +5 V bus voltage.	F	Analog Value
Ps3-5V	Power supply 3 -5V bus voltage.	F	Analog Value
Ps3Temp	Power supply 3 internal temperature.	F	Analog Value

Transmitter (devtype: 1033)

Parameter	Description	Type	Possible Values
InRF	Transmitter relative RF input power.	F	Analog value
OutPwr	Transmitter optical output power.	F	Analog value
LasBias	Transmitter laser bias current.	F	Analog value
CPLock	Transmitter constant power lock status.	F	Analog value
ModTemp	Transmitter module temperature.	F	Analog value
LasTemp	Transmitter laser temperature.	F	Analog value
Psbs2G	Transmitter 2 GHz SBS power level.	F	Analog value
Sbs1Stat	Transmitter SBS PLL status.	S	Lock (1), Fault (0)
TecCur	Transmitter laser TEC current.	F	Analog value
Mute	Transmitter output muting during major alarms.	S	On (1), Off (0)

Pre-Amplifier (devtype: 3030)

Parameter	Description	Type	Possible Values
InPwr	Pre-amp optical input power.	F	Analog value
OutPwr	Pre-amp optical output power.	F	Analog value
LasTemp	Pre-amp laser temperature.	F	Analog value
LasBias	Pre-amp laser bias current.	F	Analog value
LasLim	Pre-amp laser operating current limit.	F	Analog value
TecCur	Thermoelectric cooler current.	F	Analog value
ModTemp	Module temperature.	F	Analog value
LaserOn	Laser in-service hours.	F	Analog value

Post-Amplifier (devtype: 3031)

Parameter	Description	Type	Possible Values
InPwr	Post-amp optical input power.	F	Analog value
OutPwrA	Post-amp optical output power, top half.	F	Analog value
OutPwrB	Post-amp optical output power, bottom half.	F	Analog value
LasTempA	Post-amp laser temperature, top half.	F	Analog value
LasTempB	Post-amp laser temperature, bottom half.	F	Analog value
LasBiasA	Post-amp laser bias, top half.	F	Analog value
LasBiasB	Post-amp laser bias, bottom half.	F	Analog value
LasLimA	Post-amp laser operating current limit, top half.	F	Analog value
LasLimB	Post-amp laser operating current limit, bottom half.	F	Analog value
ModTemp	Post-amp module temperature.	F	Analog value
LaserOn	Post-amp laser in-service hours.	F	Analog value

Optical Switch (devtype: 4011)

Parameter	Description	Type	Possible Values
SwPos	Optical switch switch position.	S	Bar(1), Cross (0)
PwrIn3	Optical switch input power, Port 3.	F	Analog Value

Parameter	Description	Type	Possible Values
PwrIn4	Optical switch input power, Port 4.	F	Analog Value
ModTemp	Optical switch module temperature.	F	Analog Value
SwTemp	Optical switch switch temperature.	F	Analog Value

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog shows how the kind of information returned by this command.

```
*/* MODULE> show monitor *pwr

  MODID     NAME     VALUE      UNITS
  20/05     OutPwr   8.29224     dBm
  20/06     InPwr    5.91542     dBm
  20/06     OutPwr   18.9929     dBm
  20/13     InPwr    17.2202     dBm
  20/13     OutPwr   19.4671     dBm

SUCCESS!
*/* MODULE>
```

Note: The information returned by the **show monitor** command includes units of measurement.

Related Commands

show control

show module

show alarmstate

show alarmparam

slot

Syntax

slot slotidValue

Description

The **slot** command is used to specify:

- A single slot, using the desired slot number (0-47).
- A range of slots, using two slot numbers in brackets, e.g., [2-18].
- All slots in all chassis currently specified, using the wildcard character (*) in place of a slot number.

Parameters

The **slotidValue** parameter can be any number from 0 to 47, or a bracketed pair of numbers in this range separated by a hyphen (-). Modules that populate a frame with 2 or more submodules use the slot numbers 17 through 32. If an HDRx chassis is monitored by a daisy-chain to a Prisma II chassis with ICIM2, it has slots 1 through 47.

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog illustrates the use of all three methods described above.

```
10/* MODULE> slot [2-18]     (selects chassis 10, slots 2-18)
10/[02-18] MODULE> slot 15    (selects chassis 10, slot 15)
10/15 MODULE> slot *         (selects chassis 10, all slots)
10/* MODULE>
```

Notes on Usage

- The **slot** command can be used together with the **chassis** command to specify a particular chassis and slot location. However, it is often simpler to use the **modid** command for this purpose. See ***modid*** (on page 65) for details.

- Modspecs stay in effect when exiting and re-entering Module command mode. However, modspecs do not affect the scope of CLI, ICIM, or Terminal mode commands.
- When specifying a range of chassis or slots, the specified range need not be fully populated. For example, the chassis range [1-7] is valid even if there are fewer than seven chassis within that range. In addition, all chassis within the specified range are included whether or not their chassis numbers are contiguous.
- For an element management system or other automatic control interface, a specific chassis and slot are required for backward compatibility, and should always be specified.
- For craft operators, ranges may be specified for all Module mode commands except for **set**.

Related Commands

chassis

modid

5

ICIM Mode Commands

Introduction

This chapter describes the commands that can be executed in the ICIM command mode. These commands enable monitoring and control of the ICIM2 module itself as well as general parameters of the ICIM2 domain.

In This Chapter

Overview

ICIM mode commands provide for monitoring and control of the ICIM2 itself and for the ICIM2 domain in general.

Types of ICIM Commands

The following commands are recognized in ICIM command mode:

- The **alarm** command is used to display all active alarms in the ICIM2 domain.
- The **eventlogclear** command is used to clear the ICIM2 event log.
- The **eventlogfilter** command is used to change the event log filter settings.
- The **exit** command is used to exit ICIM command mode and return to CLI command mode.
- The **file** command is used to set the parameters needed to transfer the event log file from the ICIM2 to a remote FTP server.
- The **help** command is used to display abbreviated help for ICIM mode commands.
- The **ike** command is used to change the internet key exchange (ike) settings for IP Security (IPsec).
- The **info** command is used to request a listing of ICIM2 parameter values.
- The **iproute** command is used to change the current IP routing table.
- The **ipsec** command is used to enable and disable IPsec in the ICIM2.
- The **logout** command is used to exit CLI and return to the system prompt.
- The **manual** command is used to display detailed help for ICIM mode commands.
- The **reboot** command is used to reset the ICIM2 and allow any new settings to take effect.
- The **set** commands are used to assign values to ICIM2 alarm or control parameters, and to set the system clock.
- The **show** commands are used to display information about the ICIM2 domain, review configuration, event log, and trap settings, and access the system clock.
- The **sntp** commands are used to configure time synchronization of the ICIM2 to a Network Time Protocol (NTP) server.
- The **traps** command is used to enable or disable selected traps within the ICIM2 domain.
- The **user** commands are used to add, change, and delete system user information and to unlock user accounts.

This chapter describes these commands and their applications in detail.

To Access ICIM Command Mode

The CLI only recognizes ICIM mode commands in ICIM command mode.

Complete the following steps to enter ICIM command mode.

1. Confirm that you have logged onto CLI as explained in ***CLI Login and Logout*** (on page 8).
2. At the CLI> prompt, type **ICIM**, and then press **Enter**.
3. Confirm that the command prompt changes to ICIM>. You are now in ICIM command mode.

alarm

Syntax

alarm

Description

The **alarm** command is used to display all active alarms in the domain of the ICIM2. This command produces the same results whether entered in CLI, Module, Terminal, or ICIM command mode.

Note: This command is functionally equivalent to ***alarm domain*** (on page 45).

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
ICIM> alarm
  No active alarms found

SUCCESS!
ICIM>
```

This response shows that no alarms are active in the ICIM2 domain. To narrow the command scope to specific chassis or modules, use ***alarm module*** (on page 46).

Related commands

alarm (CLI command mode)

alarm (Module command mode)

alarm (Terminal command mode)

alarm domain (Module command mode)

alarm module (Module command mode)

show alarmparam (Module command mode)

show alarmstate (Module command mode)

eventlogclear

Syntax

eventlogclear

Description

The **eventlogclear** command is used to erase the entire contents of the event log. The user is prompted for confirmation before action is taken.

It is recommended that the event log be cleared after it has been copied (transferred) to a remote FTP server. See ***file*** (on page 108) for details.

Note: This command performs the same function as the Clear Event Log button in the Event Log screen of the ICIM Web Interface. It is also functionally equivalent to setting ICIM MIB object p2icimFileMgmtCmd to clearEventLog (2) and then setting p2icimFileMgmtAction to execute (2) via SNMP.

Parameters

None

Access Rights Required

Admin

Examples

```
ICIM> eventlogclear

You are about to remove 210 entries from the system log.
Are you sure you want to proceed (Yes/No)? yes

SUCCESS!
ICIM>
```

Related Commands

eventlogfilter

show eventlog

show eventlogall

show eventlogfilter

eventlogfilter

Syntax

eventlogfilter logCategory setting

Description

The **eventlogfilter** command is used to set the event log filter parameters, which select the categories of events that are saved in the ICIM2 event log.

Parameters

The **logCategory** parameter selects the event category to be changed. It can have one of the following values.

logCategory	Description
hardware	Designates hardware events, i.e., module insertion and removal events.
provisioning	Designates events related to configuring modules, such as changing alarm thresholds, hysteresis, and control parameters.
system	Designates events related to system activities, such as downloads, reboots, formatting, or clearing the event log.

The **setting** parameter is either **on** to save events of that type in the log, or **off** not to log these events.

Access Rights Required

Admin

Examples

```
ICIM> eventlogfilter system on

SUCCESS!
ICIM>
```

Related Commands

eventlogclear

show eventlog

show eventlogall

show eventlogfilter

exit

Syntax

exit

Description

The **exit** command is used to exit ICIM command mode to the CLI command mode for the purpose of entering CLI mode commands or selecting Module or Terminal command mode.

Note: The exit command is not recognized in CLI mode and does not result in a logout. See ***logout*** (on page 120) for details.

Parameters

None

Access Rights Required

Read, ReadWrite, and Admin

Examples

```
ICIM> exit
CLI> terminal
TERMINAL> exit
CLI> module
*/* MODULE> exit
CLI> icim
ICIM>
```

Related Commands

logout

file

Syntax

file fileParameter value

Description

The **file** command is used to set the file management parameters used for FTP transfers of the event log file from the ICIM2 to a remote FTP server.

Note: This command is functionally equivalent to the subset of ICIM MIB objects used for file management, as further explained in **SNMP Management** in the installation guide for your system release.

Parameters

The **fileParameter** parameter can have one of the values listed below.

fileParameter	Description
ip	The destination IP address of the remote FTP server.
name	The destination file name and extension, e.g., event0418.log.
password	The password for the destination remote FTP server.
path	The complete destination path for the file, minus the file name.
user	The username for the destination remote FTP server.

The **value** parameter specifies the value assigned to fileParameter. The format restrictions for this value are listed below.

value	Restrictions
ip (ip address)	Must be of the form 172.24.28.151.
name (file name)	31 characters maximum; must include file name and extension.
password (for FTP)	31 characters maximum; must include at least one letter and at least one number.
path (destination)	Case-sensitive for Solaris, with elements separated by backslash (\).
user (for FTP)	31 characters maximum, and must include at least one letter and at least one number.

Access Rights Required

ReadWrite or Admin

Examples

```
ICIM> file ip 192.28.46.118

SUCCESS!
ICIM> file name eventlog.txt

SUCCESS!
ICIM> file user ftp_user

SUCCESS!
ICIM> file password ftp_pw

SUCCESS!
ICIM> file path ftproot

SUCCESS!
ICIM>
```

Related Commands

show file

help

Syntax

help modeOption

Description

The **help** command is used alone to display onscreen help for all ICIM mode commands, or with a **modeOption** parameter to display help for a single command or function.

Note: Typing a question mark (?) character at the ICIM> command prompt gives the same result as typing help without a mode option parameter.

Parameters

The possible values for the **modeOption** parameter and their results are listed below.

modeOption	Description
<empty>	Displays onscreen help for all recognized ICIM mode commands.
<commandname>	Displays onscreen help for the specified command, if recognized.
edit	Displays onscreen help for command line editing and syntax.
commands	Displays onscreen help for global commands (exit, help, who, whoami).

Access Rights Required

Read, ReadWrite, or Admin

Example

```
ICIM> help
```

```
icim              - Enter ICIM mode
alarm             - Display active alarms for all modules
eventlogclear      - Clear the event log
eventlogfilter     - Set the event log filter parameters
file              - Access file related commands
ike               - Access IPsec Internet key exchange protocol related
                    commands
info              - Display information on 1 or more ICIM2 parameters. All
                    parameters are optional and can be entered in any order.
                    At least 1 parameter must be specified for the command to
                    be valid.
iproute            - Access IP routing related commands
ipsec             - Enable or disable IPsec on the ICIM2
logout            - Log off this system
manual            - Show detailed help text
reboot            - Reboot the ICIM2
set               - Access ICIM2 set related commands
show              - Display information on 1 or more ICIM2 parameters. All
                    parameters are optional and can be entered in any order.
                    At least 1 parameter must be specified for the command to
                    be valid.
                    Exceptions to multiple parameters are those commands that
                    return multi-word replies: clock, domain, eventlog,
                    eventlogall, eventlogfilter, file, ike, iproute,
                    provisioning, traps and user. These must be entered
                    separately.
sntp              - Access SNTP parameter settings
traps             - Update an entry in the trap receiver table
user              - Access user related commands

ICIM>
```

Related Commands

help (CLI command mode)

help (Module command mode)

help (Terminal command mode)

ike

Syntax

ike ikeAction IpAddress

Description

The **ike** command is used to change the internet key exchange (IKE) settings.

Note: IPsec peers cannot be added or deleted through Telnet unless IPsec is enabled.

Parameters

The value of the **ikeAction** parameter can be either **add** to add an IPsec peer, or **delete** to delete an IPsec peer. In either case, the parameter is followed by the **IpAddress** of the peer. The IP address must be of the form 172.24.28.151.

When a peer is added, the CLI user will be prompted to enter a 16-character key. For security reasons, you must enter this key twice, and it is not echoed to the screen. For additional information on IPsec key requirements, see **Setting Up IPsec** in the installation guide for your system release.

Access Rights Required

Admin

Example

The sample dialog below shows how this command would be used to add and then delete an IPsec peer at IP address 192.25.64.101.

```
ICIM> ike add 192.25.64.101
please enter the key: [user enters key]
please re-enter the key: [user enters key]

SUCCESS!
ICIM> ike delete 192.25.64.101

SUCCESS!
ICIM>
```

Related Commands

show ike

show ipsec

info

Syntax

info icimValue1 icimValue2 . . . icimValuen

Description

The **info** command is used to request a listing of one or more parameter values specific to the ICIM2 module itself. Any number of these values can be listed, and the output returns the values in the order requested.

Parameters

Each **icimValue** parameter can have one of the values listed below.

Argument	Description
ACTIVEREV	Active software image revision for the ICIM2.
ATTNSTATUS	Value for the Attention line (high is normal).
BOOTREV	Current boot image revision for the ICIM2.
CHASSIS	Chassis containing the ICIM2.
CLEI	Common Language Equipment ID code for the ICIM2.
CLLI	Common Language Locator ID code for the ICIM2.
COMMREAD *	The SNMP Community Read string.
COMMTRAP *	The SNMP Community Trap string.
COMMWRITE *	The SNMP Community Write string.
DEVTYPE	Typically 5011.
DOWNLDCMD	Download command (used by SOUP).
DOWNLDDIR	Directory path for FTP, excluding filename (used by SOUP).
DOWNLDFILE	Filename only of image to FTP (used by SOUP).
DOWNLDRESULT	Download progress status and result (used by SOUP).
DOWNLDSEM	Application security semaphore (used by SOUP).
DOWNLDSIG	Application security information (used by SOUP).
DOWNLDSTATE	State machine value to indicate download progress (used by SOUP).
DOWNLDTGT	Module to upgrade with release image (used by SOUP).

Argument	Description
DOWNLDUSER	Application User ID to ensure only one instance (used by SOUP).
FTPSERVER	IP address of FTP Server (used by SOUP).
FTPUSER	User name for FTP account.
GATEWAY	IP address of TCP/IP gateway, for packet routing.
HEARTBEAT	Time interval to perform regular pulse check on Ethernet connection.
HWREV	Hardware Revision.
INACTIVEREV	Inactive software image revision for the ICIM2.
IP	IP address for the ICIM2.
IPSEC	State of IPSecurity enable.
KEYPADEDITING	Current status of the ICIM2 keypad editing feature.
LOCKOUT	Current User Lockout interval.
MAC	MAC Address for the ICIM2.
MANDATA	Manufacturing data for the ICIM2.
NEXTIMAGE	Image to be active after next reboot.
PREVIOUSIP	Previous IP address for the ICIM2.
SELFTEST	Results of the ICIM2 self test.
SERIAL	Serial number for the ICIM2.
SIZE	Number of modules in the ICIM2 domain.
SLOT	The slot for the ICIM2 (always 15).
SMC	Internal index for the ICIM2 (chassis * 100 + Slot).
STATUSMSG	Status and Error message information.
SUBNET	Subnet mask applied to the ICIM2 IP address.
SWDATE	Software date (obsolete/unused).
SWREV	Software revision (obsolete/unused).
THRESHOLD	Login attempts threshold value.
TIMEOUT	User session inactivity timeout value.
TOS	Time of Service information for the ICIM2.
TZONE	Time zone string setting.
UPDATEID	Flag to update chassis IDs (always zero, write-only).

* These values are available to Admin users only.

Access Rights Required

Read, ReadWrite, or Admin

Example

The sample dialog below shows how this command might be sent by an element management system.

```
CLI> icim info IP devtype serial swrev attnstatus size exit

IP           DEVTYPE  SERIAL   SWREV    ATTNSTATUS  SIZE
172.23.200.154 5011    AADORTI  0.00.15  1          8

SUCCESS!
CLI>
```

Related Commands

show

iproute

Syntax

iproute keyWord ip_address gateWay

Description

The **iproute** command is used to add, delete, or show ICIM2 IP route definitions.

Parameters

Each **keyWord** parameter can have one of the values listed below.

keyWord	Description
add	Adds a new route to the specified destination IP address via the specified gateway IP address.
delete	Deletes the existing route to the specified destination IP address via the specified gateway IP address.

The **ip_address** parameter is the IP address of the destination, and the **gateWay** parameter is the gateway IP address.

Access Rights Required

Admin

Example

```
ICIM> show iproute

ROUTE NET TABLE
destination     gateway            flags  Refcnt  Use         Interface
-------------------------------------------------------------------------
0.0.0.0         172.24.28.254       33619971  3      3           motfec0
172.24.28.0      172.24.28.151       33554689  1      0           motfec0
-------------------------------------------------------------------------

ROUTE HOST TABLE
destination     gateway            flags  Refcnt  Use         Interface
-------------------------------------------------------------------------
127.0.0.1       127.0.0.1          35651589  0      0           lo0
172.18.1.7      172.24.28.254       33685511  1      115          motfec0
172.18.9.24     172.24.28.254       33947655  0      9           motfec0
172.18.10.23    172.24.28.254       33685511  1      181          motfec0
-------------------------------------------------------------------------

SUCCESS!
ICIM>
```

Related Commands

show iproute

ipsec

Syntax

ipsec ipsecValue

Description

The **ipsec** command is used to enable or disable the use of IP Security (IPsec).

Note: This command is not available through Telnet.

Parameters

Each **ipsecValue** parameter can have one of the values listed below.

Argument	Description
enable	Enable IPsec.
disable	Disable IPsec.

Access Rights Required

Admin

Example

The sample dialog below shows how this command might be used to disable and then re-enable IPsec.

```
ICIM> ipsec disable

                  **********************
                    W A R N I N G !
                  **********************

IPsec is about to be enabled or disabled. This requires enabling or
disabling IPsec on all peers. Failure to do so will result in a loss
of communications on some or all interfaces including [but not limited
to] SNMP, telnet, web and all other IP based interfaces. If configured
incorrectly, the only means of communication will be through the local
craft interface.

IPsec is about to be enabled/disabled. Are you sure you want to
proceed (Yes/No)? yes

IPsec disabled for 172.24.28.176
```

```
ICIM> ipsec enable

                  **********
                    W A R N I N G !
                  **********

IPsec is about to be enabled or disabled. This requires enabling or
disabling IPsec on all peers. Failure to do so will result in a loss
of communications on some or all interfaces including [but not limited
to] SNMP, telnet, web and all other IP based interfaces. If configured
incorrectly, the only means of communication will be through the local
craft interface.

IPsec is about to be enabled/disabled. Are you sure you want to
proceed (Yes/No)? yes

IPsec enabled for 172.24.28.176
ICIM>
```

Related Commands

ike

show ike

show ipsec

logout

Syntax

logout

Description

The **logout** command is used to terminate the current CLI session. This command is available in every command mode.

Important:

- For Telnet operation, the computer you are using must have a network connection through which it can reach the ICIM2 using its IP address.
- No more than four Telnet sessions are allowed at one time.
- If IPsec is enabled on the ICIM2, it must also be enabled on the remote CLI user's computer.

CAUTION:

Always use the Logout command to close a serial port or Telnet CLI session. Closing a serial port session without issuing the Logout command leaves the session open for a possible future connection. This may allow unauthorized access by a new user if the previous user had a higher authorization privilege level.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
ICIM> logout
connection to host lost
C:\>
```

Related Commands

exit

manual

Syntax

manual

Description

The **manual** command is used to display detailed help for the ICIM command mode, or for another command mode if specified while another mode is active.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
ICIM> manual

Try one of these help commands for details on specific modes:
  module manual
  terminal manual
  icim manual

General Hints:

  Keywords can be abbreviated to a unique prefix. For instance
  in CLI mode, the keyword 'MODULE' can be given as just 'm'
  or 'mod'.

  Use TAB to autocomplete a keyword.
  Use ? to list expected keywords or tokens (depends on previous input).
  Use BACKSPACE to erase previous characters.
  Use 'help edit' to display more editing commands

  Use Alarm in any mode to get a list of active alarms. When in Module
  mode, you can also narrow the list of active alarms to just those in
  the current ModSpec range. See the Module Help for further details.

  Note: entering a mode command (MODULE, ICIM, TERMINAL) enters that mode
  immediately but it is not indicated until the next prompt is displayed.

  The interface uses modes: CLI, MODULE, TERMINAL, and ICIM. The prompt
  reflects the current mode. Enter the mode name to enter that mode, and
  use EXIT to leave the mode and return to CLI mode.

ICIM Commands:

Enter ICIM mode by giving 'ICIM' and a newline. Thereafter, until
an 'Exit' is found, the interface is in ICIM mode.

alarm
  Use the 'alarm' command to show all the current alarms.  This command
  works in all modes.
```

```
eventlogclear
  Use the 'eventlogclear' command to erase the entire contents of the
  event log.

eventlogfilter
  Use the 'eventlogfilter' command to set the filter parameters for
  the event log.  There are three available parameters: hardware,
  provisioning and system.  Specify on to log events of each parameter
  type or off to skip logging these events.
  Example of valid commands:
   ICIM> eventlogfilter hardware off
   ICIM> eventlogfilter provisioning on
   ICIM> eventlogfilter system on

exit
  Use the 'exit' command to return to CLI mode.  This command must be
  used before entering MODULE or TERMINAL mode.

file <parameter> <value>
  Use the 'file' command to change the settings for transfering the
  event log from the ICIM2 to a remote FTP server as a text file.
  Following are examples of settings for these 5 values:
   ICIM> file ip <ip_address>
   ICIM> file name goqam
   ICIM> file password <ftp_password>
   ICIM> file path <ftp_path>
   ICIM> file user <ftp username>
  To show the current settings, use the 'show file' command.

ike
  Use the 'ike' command to show or change the Internet Key Exchange
  settings.  To show the current settings, use the 'show ike' command.
  To add an entry in the ike settings:
   ICIM> ike add <ip_address> <key>
  To delete an entry:
   ICIM> ike delete <ip_address>
```

```
info <parameter(s)>
  Use the 'info' command to display one or more ICIM parameter values.
  Any number of available parameters can be requested with the same command.
  Examples of valid commands:
   ICIM> info activerev
   ICIM> info commread commwrite clei
  This is a list of all parameters available for use with this command:
   activerev     Active software image revision for the ICIM
   attnstatus    Value of the Attention line (High is normal)
   bootrev       Current boot image revision for the ICIM
   chassis       Chassis containing the ICIM
   clei          Common Language Equipment ID code for ICIM
   clli          Common Language Locator ID code for ICIM
   commread      SNMP Read Community string
   commtrap      SNMP Trap Community string
   commwrite     SNMP Write Community string
   devtype       Numeric type value used for element manager, Typically 5011
   downldcmd     Download Command
   downlddir     Directory path (excluding filename) for FTP
   downldfile    Filename ONLY of image to FTP
   downldresult  Download progress status and result
   downldsem     Application security semaphore
   downldsig     Application security info
   downldstate   State machine value to indicate ftp/download progress
   downldtgt     Module Chassis and slot to upgrade with release image
   downlduser    Application User ID to ensure only one instance
   ftpserver     IP address of FTP Server
   ftpuser       User name for FTP server
   gateway       IP address of TCP/IP gateway, for packet routing
   heartbeat     Time interval to perform regular pulse check on Ethernet connection.
   hwrev         Hardware Revision
   inactiverev   Inactive software image revision for the ICIM
   ip            TCP/IP address of the ICIM
   ipsec         IP Security state (enabled or disabled)
   lockout       Lockout interval in minutes
   mac           MAC Address (used in low-level ethernet routing)
   mandata       Manufacturing data
   nextimage     The image to be active after next reboot
   previousip    Value of the TCP/IP before it was last changed
   selftest      Results of ICIM self test
   serial        Serial Number
   size          Number of modules in this ICIM's domain
   slot          Always 15 -- the slot holding the ICIM
   smc           The value: (Chassis * 100) + Slot for the ICIM
   statusmsg     Status and Error Msg info
   subnet        Subnet mask, such as 255.255.255.0
   swdate        Software date (obsolete)
   swrev         Software Revision (obsolete)
   threshold     Login attempts threshold value
   timeout       User session inactivity timeout value
   tzone         Time zone string
   tos           Time of Service
   updateid      Always 0 (this is a write-only value)

iproute
  Use the 'iproute' command to add delete or show IP routes.
  Following are examples of the 'iproute' command usage:
   ICIM> iproute add <ip_address> <gateway>
   ICIM> iproute delete <ip_address> <gateway>
  To show the current settings, use 'show iproute'

ipsec
  Use the 'ipsec' command to enable or disable the use of IPSec.
   ICIM> ipsec enable
   ICIM> ipsec disable

logout
  Use the 'logout' command to logout of the CLI session.  If the
  session is a telnet session, it will be closed.  If the session
  is the local console port, the login prompt will be given.
```

```
manual
  Use the 'manual' command to display this help.

reboot
  Use the 'reboot' command to reboot the ICIM2.  The modules will
  not be rebooted.

set <parameter> <value>
  Use the 'set' command to set any of the user-changeable ICIM2
  values.  Following are the parameters available for modification:
   clli          Common Language Locator ID code for ICIM
   clock         The ICIM2 real time clock (value MUST be in quotes)
   commread      SNMP Read Community string
   commtrap      SNMP Trap Community string
   commwrite     SNMP Write Community string
   gateway       IP address of TCP/IP gateway, for packet routing
   heartbeat     Time interval to perform regular pulse check on Ethernet connection.
   ip            TCP/IP address of the ICIM
   lockout       Lockout interval in minutes (0 disables lockout)
   statusmsgclearkey   Set to 1 to clear the status message
   subnet        Subnet mask, such as 255.255.255.0
   threshold     Use the 'set threshold' command to set the login
                 threshold number.  Valid values are 0-15, where 0
                 disables threshold checking.
   timeout       Use the 'set timeout' command to set the user
                 inactivity timeout.  Once a user session has been
                 inactive for this many minutes, the user will be
                 automatically logged out of the system.  Valid values
                 are from 1 to 60.  Changes to timeout affect future
                 console, Telnet and Web sessions.
   tzone         Time zone string
   updateid      Set to 1 to have the system read a new chassis ID

  And here are some examples of using the 'set' command:
   ICIM> set commread public
   ICIM> set clock "9/12/2006 14:21:30"
   ICIM> set updateid 1

show
  Use the 'show' command to display one or more ICIM parameter values.
  Any number of available parameters can be requested with the same command.
  Exception commands are those that return multi-word replies: clock, domain
  eventlog, eventlogall, eventlogfilter, file, ike, iproute, provisioning,
  traps and user.  These must be entered separately.
  Examples of valid commands:
   ICIM> show activerev
   ICIM> show commread commwrite clei
  The 'show' command can be used to display all of the parameters that
  are supported by the 'info' command, plus these:
   clock         The ICIM2 real time clock
   domain        The complete module listing for this ICIM domain
   eventlog      The ICIM2 event log with only the timestamp, user and
                 description fields to make console viewing simpler
   eventlogall    The ICIM2 event log with all fields
   eventlogfilter The filter settings for the event logging
   file          The file management settings for FTP transfer of event log
   ike           The Internet Key Exchange settings
   iproute       The IP Route settings
   lockedusers    The currently locked user accounts
   provisioning   The commands needed to restore the module configuration
   sntp          The SNTP settings to synchronize the RTC with the NTP Server
   traps         The trap receiver table settings
   user          The table of configured user accounts
```

```
sntp <parameter> <value>
  Use the 'sntp' command to change the settings to synchronize the
  ICIM's Real Time Clock with the Network Time Protocol Server.
  Last of all, activate SNTP by changing sntp state to 'enable'.
  Following are examples of settings for these values:
   ICIM> sntp mode <unicast | broadcast>
   ICIM> sntp ip  <ip address>
   ICIM> sntp timeout <seconds>
   ICIM> sntp interval <hours>
   ICIM> sntp state <enable | disable>
  To show the current settings, use the 'show sntp' command.

traps <state> <index> <ip_address>
  Use the 'traps' command to modify the trap receiver table.  The table
  holds 10 trap receivers, indexed 0 to 9.  If a receiver entry already
  exists and its state is being modified, it is not necessary to use the
  <ip_address> parameter.  Examples:
   ICIM> traps enable 0 192.32.101.12
   ICIM> traps disable 3

user
  Use the 'user' command to display or modify the user table.
  To show the table:
   ICIM> show user
  To add a new user to the table:
   ICIM> user add <user_id> <access_level> <account_status>
   The user_id field must be between 6 and 14 characters and contain both
   alpha and numeric characters.  The access_level can be admin, read or
   readwrite.  The account_status can be either enable or disable.  Once
   the command is accepted, the user will be prompted for a new password.
  To delete a user from the table:
   ICIM> user delete <user_id>
  To change settings for an existing user:
   ICIM> user change access_rights <user_id> <new_access_value>
   ICIM> user change account_status <user_id> <new_status_value>
   ICIM> user change password <user_id>
   <new_access_value> can be admin, read or readwrite, while
   <new_status_value> can be enable or disable.  The user will be prompted
   for a new password in the case of that change.
  To unlock a user account:
   ICIM> user unlock <user_id>

ICIM>
```

Related Commands

manual (CLI command mode)

manual (Module command mode)

manual (Terminal command mode)

help

reboot

Syntax

reboot

Description

The **reboot** command causes the ICIM2 to be reset.

Note: This command resets the ICIM2 only. To reset other modules, see ***reset*** (on page 67).

Parameters

None

Access Rights Required

Admin

Example

The lines shown below will be followed by the usual startup messages, and then by the login prompt.

```
ICIM> reboot
The ICIM2 is about to reboot. This will end all current login and web
sessions. Are you sure you want to proceed (Yes/No)? yes
SUCCESS!
```

Related Commands

None

set

Syntax

set valueName newValue

Description

The **set** command allows a single parameter value to be set in the ICIM2 by specifying the parameter to be changed and the new value.

Parameters

The **valueName** parameter can be one of the following:

valueName	Description
CLLI	Common Language Locator ID code for the ICIM2 (up to 20 characters, no spaces).
CLOCK	Date and Time as maintained by the ICIM2.
COMMREAD	SNMP Read Community string (prismaread by default).
COMMTRAP	SNMP Trap Community string (prismatrap by default).
COMMWRITE	SNMP Write Community string (prismawrite by default).
GATEWAY	IP address of the TCP/IP gateway, for packet routing (of the form 172.24.28.254).
HEARTBEAT	Change the interval of the pulse check on Ethernet connection (1-1440 minutes; 0 to disable)
IP	TCP/IP address of the ICIM2 (of the form 172.24.25.151).
KEYPADEDITING	Controls whether module controls can be changed via the ICIM2 front panel keypad (disabled by default).
LOCKOUT	Change the User Lockout interval (1-60 minutes; 0 to disable).
STATUSMSGCLEARKEY	Controls whether Error or Status message is kept or cleared.
SUBNET	Subnet mask (of the form 255.255.0.0).
THRESHOLD	User failed login attempts threshold.
TIMEOUT	User inactivity timeout in minutes.
TZONE	Time zone of the ICIM2 (see note below).

valueName	Description
UPDATEID	Write-only; value of 1 causes ICIM2 to re-read ID of all modules.

The **newValue** parameter is the new parameter value to be set.

Note:

- Some of these values (IP and GATEWAY, for example) result in changes to the ICIM2 NVRAM, but do not take effect until the next reboot.
- Use the **set tzone** command carefully. Systems that use an external clock reference may periodically overwrite settings made with this command. Date, time, and timezone changes should be made to the master clock reference if one is in use.

Access Rights Required

Admin

Example

```
ICIM> set ip 192.0.2.12
ICIM> set gateway 192.0.2.17
ICIM> set subnet 192.0.2.11
```

Related Commands

info

show

set clock

Syntax

set clock "mm/dd/yyyy hh:mm:ss"

Description

The **set clock** command lets you set and confirm the ICIM2 real time clock (RTC) using a single command.

Note:

- You must enclose the new date/time value in quotes.
- Use this command carefully. Systems that use an external clock reference may periodically overwrite settings made with this command. Make date, time, and timezone changes to the master clock reference, if one is used.

Parameters

The date parameter, **mm/dd/yyyy**, defines:

- The current month as one or two digits.
- The current day as one or two digits.
- The current year as four digits.

The time parameter, **hh:mm:ss**, defines:

- The current hour as two digits in 24-hour format.
- The current minute as two digits.
- The current second as two digits.

Access Rights Required

Admin

Example

In the following example, note that the system responds by confirming the current date and time settings. This avoids the need to issue a separate **show clock** confirmation command.

```
ICIM> set clock "10/5/2005 12:40:00"
Wed, 05 Oct 2005 12:40:00 EST
SUCCESS!
ICIM>
```

Related Commands

show clock

set keypadediting

Syntax

set keypadediting editValue

Description

The **set keypadediting** command lets you enable and disable the editing of module controls via the ICIM2 front panel.

Note: The value name for this command can be abbreviated as **keypade**.

Parameters

The **editValue** parameter can have one of the values listed below.

Argument	Description
enabled	Enable editing of module controls from the ICIM2 keypad.
disabled	Disable editing of module controls from the ICIM2 keypad.

Access Rights Required

Admin

Example

```
ICIM> set keypade enabled

SUCCESS!
ICIM>
```

Related Commands

show keypadediting

show

Syntax

show icimValue1 icimValue2 . . . icimValuen

Description

The **show** command is used to request a listing of one or more parameter values specific to the ICIM2 module itself.

Multiple values may be listed, except that values returning multiple-word responses (see table below) must be listed individually.

When two or more values are listed, the output returns the values in the order requested.

Parameters

Each **icimValue** parameter can have one of the values listed below.

Argument	Description
ACTIVEREV	Active software image revision for the ICIM2.
ATTNSTATUS	Value for the Attention line (0 is normal).
BOOTREV	Current boot image revision for the ICIM2.
CHASSIS	Chassis containing the ICIM2.
CLEI	Common Language Equipment ID code for the ICIM2.
CLLI	Common Language Locator ID code for the ICIM2.
CLOCK [1]	The Date and Time as maintained by the ICIM2.
COMMREAD [2]	The SNMP Community Read string.
COMMTRAP [2]	The SNMP Community Trap string.
COMMWRITE [2]	The SNMP Community Write string.
DEVTYPE	Typically 5011.
DOMAIN [1]	Requests information on all modules in the ICIM2 domain.
DOWNLDCMD	Download command (used by SOUP).
DOWNLDDIR	Directory path for FTP, excluding filename (used by SOUP).
DOWNLDFILE	Filename only of image to FTP (used by SOUP).
DOWNLDRESULT	Download progress status and result (used by SOUP).
DOWNLDSEM	Application security semaphore (used by SOUP).

Argument	Description
DOWNLDSIG	Application security information (used by SOUP).
DOWNLDSTATE	State machine value to indicate download progress (used by SOUP).
DOWNLDTGT	Module to upgrade with release image (used by SOUP).
DOWNLDUSER	Application User ID to ensure only one instance (used by SOUP).
EVENTLOG [1, 2]	ICIM2 event log, abbreviated (only timestamp, user, and description fields included to facilitate console viewing).
EVENTLOGALL [1, 2]	ICIM2 event log, all fields included.
EVENTLOGFILTER [1]	Event log filter parameters.
FILE [1]	Event log file management parameters.
FTPSERVER	IP address of FTP Server (used by SOUP).
FTPUSER [2]	User name of FTP account.
GATEWAY	IP address of TCP/IP gateway, for packet routing.
HEARTBEAT	Displays the current time interval for the regular pulse check on Ethernet connection.
HWREV	Hardware Revision.
INACTIVEREV	Inactive software image revision for the ICIM2.
IKE [1, 2]	Internet Key Exchange settings.
IP	TCP/IP address of the ICIM2.
IPROUTE [1]	IP route settings.
IPSEC	IP Security state (enabled or disabled).
KEYPADEDITING	Displays the current status of ICIM keypad editing (enabled or disabled).
LOCKEDUSERS [1]	Lists users currently locked out for reaching maximum failed logins.
LOCKOUT	Displays the current User Lockout interval.
MAC	MAC Address, used in low-level ethernet routing.
MANDATA	Manufacturing data.
NEXTIMAGE	The image to be active after the next reboot.
PREVIOUSIP	Value of the TCP/IP address before it was last changed.
PROVISIONING [1]	Causes the system provisioning commands to be sent to the terminal.
SELFTEST	Results of the ICIM2 self test.
SERIAL	Serial number of the ICIM2.

Argument	Description
SIZE	Number of modules in the ICIM2 domain.
SLOT	Always 15, the slot holding the ICIM2.
SMC	The value (Chassis * 100) + Slot for the ICIM2.
SNTP [1]	Parameters to synchronize the ICIM2 real time clock to an NTP server
STATUSMSG	Status and Error message information.
SUBNET	Subnet mask, such as 255.255.255.0.
SWDATE	Software date (obsolete).
SWREV	Software revision (obsolete).
THRESHOLD	User failed login threshold.
TIMEOUT	User inactivity timeout.
TOS	Time of Service of the ICIM2.
TRAPS [1]	Displays the current trap receiver table.
TZONE	Time zone of the ICIM2.
UPDATEID	Always zero (0); this is a write-only value.
USER [1, 2]	Table of defined users; System Release 2.01 adds LOCKED column.

[1] These values return multiple-word responses, and so must be listed individually.

[2] These values are available to Admin users only.

Access Rights Required

Read, ReadWrite, or Admin

Example

The sample dialog below shows how this command might be sent by an element management system.

```
CLI> icim show IP devtype serial attnstatus size exit

IP           DEVTYPE  SERIAL   ATTNSTATUS  SIZE
172.23.200.154 5011    AADORTI  0          8

SUCCESS!
CLI>
```

Related Commands

info

show clock

Syntax

show clock

Description

The **show clock** command is used to display the current ICIM2 Real Time Clock (RTC) date and time settings.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
ICIM> show clock

  MM-DD-YYYY     HH:mm:ss
  10-17-2006     12:01:40

  Tue, 17 Oct 2006 12:01:40 EST

SUCCESS!
ICIM>
```

Related Commands

set clock

show domain

Syntax

show domain

Description

The **show domain** command is used to request information about the elements in the ICIM2 domain. This command displays a list of all of the modules in the ICIM2 domain.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show domain

  MODID  DEVTYPE  SERIAL    ACTIVEREV  CODEREV  NAME
  20/00  5012     ~AAOZZGM  1.01.08    CF_CCB3  Fan Tray
  20/03  5013     N/A       N/A        N/A      Power Supply 3
  20/05  1031     12345678  1.65.00    CF_CCB3  1550nm EM TX FTTP
  20/07  3030     AACZOIF   1.00.05    CF_CCB3  1550nm Pre-Amp FTTP
  20/08  3031     !AAGJUHB  1.00.05    CF_CCB3  1550nm Post-Amp FTTP

SUCCESS!
ICIM>
```

In the response, each module is identified by its chassis and slot number (MODID) as well as by object type (DEVTYPE), serial number (SERIAL), software revision number (ACTIVEREV), code revision number (CODEREV), and product description (NAME).

Related Commands

show provisioning

show traps

show eventlog

Syntax

show eventlog

Description

The **show eventlog** command is used to display an abbreviated version of the event log. Only three columns are displayed: date/time, user, and description. This is the preferred method for viewing the event log through the CLI. For further information, see **Event Log** in the installation guide for your system release.

Parameters

None

Access Rights Required

Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show eventlog

10/30/06 17:34:15  Administrat0r   Change inactivity timer setting to: 60 minutes
10/30/06 17:33:33  Administrat0r   Login successful
10/30/06 17:33:25  admin1         Log Off
3 log messages displayed

SUCCESS!
ICIM>
```

Related Commands

show eventlogall

show eventlogfilter

show eventlogall

Syntax

show eventlogall

Description

The **show eventlogall** command is used to display a full version of the event log. All columns are displayed: date/time, user, user access level, log category, log action ID, and description.

This method typically produces an output too wide for terminal settings, but may be useful when all log fields are needed. For further information, see **Event Log** in the installation guide for your system release.

Parameters

None

Access Rights Required

Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show eventlogall

10/30/06 17:34:15  Administrat0r   AD  AD  CHG_INACTIVITY_TIMER  Change
  inactivity timer setting to: 60 minutes
10/30/06 17:33:33  Administrat0r   AD  SE  LOGIN_SUCCESS       Login successful
10/30/06 17:33:25  admin1         AD  SE  LOG OFF            Log Off
3 log messages displayed

SUCCESS!
ICIM>
```

Related Commands

show eventlog

show eventlogfilter

show eventlogfilter

Syntax

show eventlogfilter

Description

The **show eventlogfilter** command is used to display the current event log filter parameter settings. These settings determine which of three categories of events (Provisioning, Hardware, and System) are included or excluded in future event log entries. For further information, see **Event Log** in the installation guide for your system release.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show eventlogfilter

Event Log Settings:
 Provisioning Events: on
 Hardware Events: on
 System Events: on
  (a value of "on" means to log events of that category)

SUCCESS!
ICIM>
```

Related Commands

show eventlog

show eventlogall

show file

Syntax

show file

Description

The **show file** command is used to display the current event log file management parameter settings. These settings control the FTP transfer of the event log file from the ICIM2 to a remote FTP server.

Parameters

None

Access Rights Required

ReadWrite or Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show file

File Transfer Settings:
   IP Address   192.15.26.102
   Remote Path  \ftproot
   File Name    eventlog.txt
   User Name    Set
   Password     Set

SUCCESS!
ICIM>
```

Note: For security reasons, the username and password are not displayed. If these values are set, then "Set" is shown. Otherwise, "Not Set" indicates that the values have not yet been assigned.

Related Commands

file

show ike

Syntax

show ike

Description

The **show ike** command is used to display the current IPsec Internet Key Exchange (IKE) parameter settings. These settings include the IP peers for the ICIM2, but the preshared keys are not displayed.

Parameters

None

Access Rights Required

Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show ike

IPSec is not enabled.

IKE Peer        Authentication Method
--------        ---------------------
192.18.65.114    Preshared Key

SUCCESS!
ICIM>
```

Related Commands

ike

show iproute

Syntax

show iproute

Description

The **show iproute** command is used to display the ICIM2 IP routing table.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show iproute

ROUTE NET TABLE
destination     gateway            flags  Refcnt  Use         Interface
-------------------------------------------------------------------------------
0.0.0.0         192.24.28.254       33619971  2      127          motfec0
192.24.28.0      192.24.28.155       33554689  1      0            motfec0
-------------------------------------------------------------------------------

ROUTE HOST TABLE
destination     gateway            flags  Refcnt  Use         Interface
-------------------------------------------------------------------------------
127.0.0.1       127.0.0.1          35651589  0      0            lo0
192.18.9.24      192.24.28.254       33947655  0      374          motfec0
192.18.9.88      192.24.28.254       33685511  1      18           motfec0
-------------------------------------------------------------------------------

SUCCESS!
ICIM>
```

Related Commands

iproute

show keypadediting

Syntax

show keypadediting

Description

The **show keypadediting** command is used to display the current status of the keypad editing feature, which can allow editing of module control parameters via the ICIM2 front panel keypad.

Note: The value name for this command can be abbreviated as **keypade**.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
ICIM> show keypade

KEYPADEDITING
enabled

SUCCESS!
ICIM>
```

Related Commands

set keypadediting

show provisioning

Syntax

show provisioning

Description

The **show provisioning** command is used to request information about how the elements of the ICIM2 domain are currently provisioned (configured).

This command displays a list of the CLI commands needed to restore any replacement modules in the ICIM2 domain to their current operating states. This list can serve as a command reference to quickly configure a replacement module so that it operates identically to the original.

The output is intended primarily for use by an element management system, which would store the provisioning commands until needed. In the event that a module is replaced, the system would then send the provisioning commands required to configure the replacement module to match the operating state of the original.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

The following sample dialog shows how a network management system might send the command, and includes a portion of a typical response. Note that the element management system uses an inline (non-modal) command to switch from CLI to ICIM command mode.

```
CLI> icim show provisioning exit

. . . .

Module  Chassis 20 Slot  5  Set Control Enable  On     EXIT
Module  Chassis 20 Slot  5  Set Control AGC     On     EXIT
Module  Chassis 20 Slot  5  Set Control RFDrive 0      EXIT
Module  Chassis 20 Slot  5  Set Control OMISet  0      EXIT
Module  Chassis 20 Slot  5  Set Control Master  Master EXIT
Module  Chassis 20 Slot  5  Set Control CWMode  Off    EXIT
Module  Chassis 20 Slot  5  Set Control LenMode Off    EXIT

. . . .
```

Using the list requires first locating all command lines that target the chassis and slot location of the replacement module. The commands are then sent to the replacement module one at a time in the order listed. For example, after replacing the module in chassis 20 slot 6 in the above example, the commands on lines 6-9 of the response would be sent to configure the replacement module.

Note: CLI has no mechanism for accepting multiple commands at a single prompt from a craft operator or element management system. It is necessary to send the first command, wait for a new prompt, send the next command, and so on until all commands are sent.

Related Commands

show domain

show traps

show sntp

Syntax

show sntp

Description

The **show sntp** command is used to display the current settings for parameters that synchronize the ICIM2 real time clock (RTC) to a Network Time Protocol (NTP) server. For further information, see ***sntp*** (on page 149) and the **SNTP Time Synchronization** section of the installation guide for your system release.

Parameters

None

Access Rights Required

Admin

Example

The sample dialog below illustrates the use of this command.

```
ICIM> show sntp

SNTP Settings:
     Mode         Unicast
     Version      v1
     Timeout      5 seconds
     Interval     1 hour(s)
     IP Address   123.23.3.12
     State        Enabled
     Last Update  03-12-2007 13:37:25

SUCCESS!
ICIM>
```

Related Commands

sntp

show traps

Syntax

show traps

Description

The **show traps** command is used to request information about the traps defined in the ICIM2 Traps table. In response to this command, the system displays the current status of the Trap table.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

A typical response to this command is shown in the sample craft operator dialog below:

```
ICIM> show traps

IDX   STATE      IP Address
  0   Enabled    172.18.50.41
  1   Enabled    172.18.50.1
  2   Enabled    172.18.50.6
  3   Disabled   0.0.0.0
  4   Disabled   0.0.0.0
  5   Disabled   0.0.0.0
  6   Disabled   0.0.0.0
  7   Disabled   0.0.0.0
  8   Disabled   0.0.0.0
  9   Disabled   0.0.0.0

SUCCESS!
ICIM>
```

Related Commands

show domain

show provisioning

traps

show user

Syntax

show user

Description

The **show user** command is used by an Administrator (a user with Admin level authorization) to list all the available logins and authorization levels. It does not display the passwords.

Parameters

None

Access Rights Required

Admin

Example

```
ICIM> show user

LOGIN IDENTIFIER  ACCESS LEVEL  STATUS    LAST LOGIN        FAILED  LOCKED
Administrat0r     ADMIN        Enabled   09/02/06 09:02:07   0      No
Benjamin9         READWRITE    Enabled   09/01/06 12:46:13   0      No
Chris555          READ         Enabled   08/29/06 23:55:55   0      No
Doug3333          ADMIN        Enabled   09/02/06 13:16:31   0      No
Emily567891012    READWRITE    Enabled   09/13/06 18:09:50   0      No
Frank5            READ         Enabled   06/30/06 03:24:34   0      No
george8           ADMIN        Enabled   07/12/06 11:38:21   0      No
HEIDi2345         READWRITE    Enabled   09/06/06 09:22:44   0      No

SUCCESS!
ICIM>
```

Related Commands

user add

user change

user delete

sntp

Syntax

sntp valueName newValue

Description

The **sntp** command is used to set the individual parameters that control SNTP time synchronization by specifying the parameter to be changed and the new value.

Parameters

The **valueName** parameter can be one of the following:

valueName	Description
INTERVAL	Interval in hours (1-168) between consecutive ICIM2 time requests to the NTP server.
IP	IP address of the NTP server in xxx.xxx.xxx.xxx format.
MODE	Selects unicast (1) or broadcast (2) mode for SNTP time synchronization.
STATE	Enables (1) or disables (2) the SNTP client.
TIMEOUT	Time period that the ICIM2 listens for a response from the NTP server following a time synchronization request.
VERSION	SNTP default version, version 1 (v1) or version 3 (v3).

The **newValue** parameter is the new parameter value to be set.

Note:

- SNTP time synchronization is disabled by default. After being enabled, it must be disabled again before changing other SNTP parameters.
- SNTP time synchronization and element management system (EMS) time synchronization are mutually incompatible.
- SNTP delivers time in Coordinated Universal Time (UTC) format, which the ICIM2 converts to local time based on its current time zone setting.
- SNTP parameters are stored in non-volatile memory, so they do not need to be reset following an ICIM2 reboot.
- In order for SNTP clock updates to work properly, the time zone must be set correctly before enabling SNTP time synchronization in the ICIM2. See set.

Access Rights Required

Admin

Example

```
ICIM> sntp state disabled

SUCCESS!
ICIM> sntp version v3

SUCCESS!
ICIM> sntp mode unicast

SUCCESS!
ICIM> sntp timeout 5

SUCCESS!
ICIM> sntp interval 1

SUCCESS!
ICIM> sntp ip 123.2.23.13

SUCCESS!
ICIM> sntp state enabled

SUCCESS!
ICIM>
```

Related Commands

set clock

set tzone

traps

Syntax

traps state index [IPAddress]

Description

The **traps** command allows the entries in the Trap table to be enabled or disabled, and allows the IP address of the Trap table to be set.

Note:

- The Trap table has 10 entries, indexed 0 through 9. Each entry can be enabled by supplying a valid IP address, or if the table entry already has a valid IP address.
- When enabling or disabling an entry already in the Traps table, the IP address parameter is optional, so you do not have to specify it.

For instructions on viewing the Trap table, see ***show traps*** (on page 147).

Parameters

Parameter	Description
state	Specifies whether this command is to **enable** or **disable** traps.
index	Trap table index (0-9).
[IPAddress]	Optional IP address to put in the table.

Access Rights Required

Admin

Example

```
ICIM> traps disable 2

You are about to change entry 2 to 'disabled' with an IP of 172.16.0.0
To confirm, you must type 'YES' followed by an Enter: yes

SUCCESS!
ICIM>
```

Related Commands

show traps

user add

Syntax

user add username authlevel accountstatus

Description

The **user add** command is used to add a new login and password to the ICIM2 authentication table. A dialog is used to obtain and validate the password.

Parameters

The **username**, or user identifier, must be 6 to 14 characters in length and contain both letters and numbers. The username cannot include special characters. An example of a valid username is abc123.

The **authlevel**, or authorization level, may be one of the following:

authlevel	Description
Admin	Equivalent to a Unix superuser (root) and should be allowed for only the most trusted logins. An Admin can change passwords, IP addresses, and other critical values.
Readwrite	Allows typical operations, including the ability to change control values and alarm parameters.
Read	Allows the user to read non-critical values only, and has no write permissions.

The **accountstatus** may be one of the following:

accountstatus	Description
Enable	The account is enabled.
Disable	The account is created but disabled.

Note: After entering this command, you will be prompted to enter a password for the user. The password must be 6 to 14 characters in length and contain both letters and numbers. Unlike the username, the password may contain special characters.

Access Rights Required

Admin

Example

```
ICIM> user add smith8 readwrite enable
```

```
Please enter the password:
```

Related Commands

user change

user delete

user unlock

show user

user change

Syntax

user change userparam username newvalue

Description

The **user change** command is used by the Administrator (a user with Admin authorization) to change the access rights, account status, or password of an existing user. A dialog is used to obtain and validate the new setting.

Passwords must be 6 to 14 characters in length and contain both letters and numbers. Passwords may contain special characters.

Note: This command can be used to change the authorization level of a user without having to delete and add the user.

Parameters

The **userparam** may be one of the following:

userparam	Description
Access_rights	Specify this parameter to change the user access rights or authorization level. The **newvalue** parameter must be set to **admin**, **readwrite**, or **read**, as appropriate.
Account_status	Specify this parameter to change the user account status. The **newvalue** parameter must be set to **enable** or **disable**, as appropriate.
Password	Specify this parameter to change the user password. Omit the **newvalue** parameter. A dialog will prompt for the new password.

The **username** or user identifier must be 6 to 14 characters in length and contain both letters and numbers. Unlike passwords, user names cannot contain special characters. An example of a valid username is abc123. The user name must already exist in the authentication table.

Access Rights Required

Admin

Example

```
ICIM> user change password smith8
Please enter the password:
```

Related Commands

user add

user delete

user unlock

show user

user delete

Syntax

user delete username

Description

The **user delete** command is used by an Administrator (a user with Admin level authorization) to remove an existing login and password from the ICIM2 authentication table.

Note:

- It is not necessary to delete a user to change account settings. See ***user change*** (on page 154) for details.
- Deleting a user that is already logged in does not terminate their current session.

Parameters

The **username** must be 6 to 14 characters in length and contain both letters and numbers. The username cannot include special characters. For example, abc123 is a valid user name. The user name must already exist in the authentication table.

Access Rights Required

Admin

Example

```
ICIM> user delete smith8

SUCCESS!
ICIM>
```

Related Commands

user add

user change

user unlock

show user

user unlock

Syntax

user unlock username

Description

The **user unlock** command is used by an Administrator (a user with Admin level authorization) to unlock a locked-out user before the lockout interval has expired.

Note:

- It is not necessary to unlock a user to change account settings. See ***user change*** (on page 154) for details.
- Unlocking a locked-out user also resets the failed login attempts counter for that user.
- Users are also unlocked when their user account is enabled or when the ICIM2 is rebooted.
- Do not attempt to unlock a user by changing the user lockout interval, as this may result in an unexpected actual lockout interval for the user.

Parameters

The **username** must be 6 to 14 characters in length and contain both letters and numbers. The username cannot include special characters. For example, abc123 is a valid user name. The user name must already exist in the authentication table.

Access Rights Required

Admin

Example

```
ICIM> user unlock User9438

SUCCESS!
ICIM>
```

Related Commands

user add

user change

show user

6

Terminal Mode Commands

Introduction

This chapter describes the commands that can be executed in the Terminal command mode. These commands control the appearance of information displayed onscreen in response to other CLI commands.

In This Chapter

Overview

Terminal mode commands are used to control the way that information is displayed onscreen in response to CLI commands.

Types of Terminal Commands

The following commands are recognized in Terminal command mode:

- The **colsep** command controls the separation between columns in a tabular information display.
- The **exit** command is used to exit Terminal command mode and return to CLI command mode.
- The **headers** command controls the presence of headers on any table columns in the display.
- The **help** command is used to display abbreviated help for Terminal mode commands.
- The **logout** command is used to exit CLI and return to the system prompt.
- The **manual** command is used to display detailed help for Terminal mode commands.
- The **paging** command controls whether long output is displayed on screen with or without paging.
- The **pattern** command controls which of two possible wildcard pattern matching styles is in effect.
- The **show** command (in Terminal command mode) displays the current values of all terminal states.

This chapter describes these commands and their applications in detail.

To Access Terminal Command Mode

The CLI only recognizes Terminal mode commands in Terminal command mode.

Complete the following steps to enter Terminal command mode.

1. Confirm that you have logged onto CLI as explained in ***CLI Login and Logout*** (on page 8).
2. At the CLI> prompt, type **Terminal**, and then press **Enter**.
3. Confirm that the command prompt changes to TERMINAL>. You are now in Terminal command mode.

alarm

Syntax

alarm

Description

The **alarm** command is used to display all active alarms in the domain of the ICIM2. This command produces the same results whether entered in CLI, Module, Terminal, or ICIM command mode.

Note: This command is functionally equivalent to ***alarm domain*** (on page 45).

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
TERMINAL> alarm
  No active alarms found

SUCCESS!
TERMINAL>
```

This response shows that no alarms are active in the ICIM2 domain. To narrow the command scope to specific chassis or modules, use ***alarm module*** (on page 46).

Related Commands

alarm (CLI command mode)

alarm (Module command mode)

alarm (ICIM command mode)

alarm domain (Module command mode)

alarm module (Module command mode)

colsep

Syntax

colsep "string"

Description

The **colsep** command controls the separation between columns of output in the display.

By default, output is displayed in columns only slightly wider than are needed for the longest value in the column. Adding spaces between columns can make the output more legible to a craft operator, but may make output parsing more difficult for a remote element management system.

On the other hand, if element management software recognizes a specific character (such as |) as a column separator, the colsep command can be used to insert this character between columns in the output.

Parameters

The **string** parameter is the column separation character or characters, or is empty ("") to specify default column separation.

Access Rights Required

Read, ReadWrite, or Admin

Examples

In the sample dialog below, a network management system sends this command to enforce default column separation just before it sends a command requesting columns of output.

```
CLI> terminal colsep "" exit

CLI> module modid * exit

CLI> module show control *serv* exit

  MODID  NAME     SETTING  UNITS
  01/07  Service  Off (0)
  01/08  Service  Off (0)
  01/09  ServiceA On (1)
  01/09  ServiceB Off (0)

SUCCESS!
CLI>
```

The next example shows how the output could be modified to make it more easily parsed by a program such as Microsoft Excel, which recognizes a comma-separated values (CSV) file format.

```
CLI> terminal colsep "," exit

CLI> module modid * exit

CLI> module show control *serv* exit

CHASSIS,SLOT,NAME,SETTING,UNITS
1,7,Service,Off(0),
1,8,Service,Off(0),
1,9,ServiceA,On(1),
1,9,ServiceB,Off(0),

SUCCESS!
CLI>
```

If the output data itself might contain columns, another character such as | can be used as a column separator, as shown in the following example:

```
CLI> terminal colsep "|" exit

CLI> module modid * exit

CLI> module show control *serv* exit

CHASSIS|SLOT|NAME|SETTING|UNITS
1|7|Service|Off(0)
1|8|Service|Off(0)
1|9|ServiceA|On(1)
1|9|ServiceB|Off(0)

SUCCESS!
CLI>
```

Related Commands

headers

paging

pattern

show (Terminal mode)

exit

Syntax

exit

Description

The **exit** command is used to exit Terminal command mode to the CLI command mode for the purpose of entering CLI mode commands or selecting Module or ICIM command mode.

Note: The exit command is not recognized in CLI mode and does not result in a logout. See ***logout*** (on page 169) for details.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
TERMINAL> exit
CLI> icim
ICIM> exit
CLI> module
*/* MODULE> exit
CLI> terminal
TERMINAL>
```

Related Commands

logout

headers

Syntax

headers digits

Description

The **headers** command is used to enable or disable the display of column headers that may appear in CLI output. Column headers are enabled by default, but may be disabled and re-enabled using the headers command.

Note: This command does not affect the event log, which is always displayed without headers.

Parameters

The **digits** parameter is 0 to disable header display, and 1 to enable header display.

Access Rights Required

Read, ReadWrite, or Admin

Examples

Headers are enabled (1) by default, as shown in the sample craft operator dialog below:

```
20/03 MODULE> show monitor ps*5*

  MODID  NAME    VALUE     UNITS
  20/03  Ps1+5V  0         V
  20/03  Ps1-5V  0         V
  20/03  Ps3+5V  5.39218    V
  20/03  Ps3-5V  -5.43724   V

SUCCESS!
20/03 MODULE>
```

The following sample dialog shows how a craft operator might disable the column headers and confirm the change:

```
20/03 MODULE> exit

CLI> terminal

TERMINAL> headers 0

TERMINAL> exit
```

```
CLI> module modid 2003

SUCCESS!
CLI> module

20/03 MODULE> show monitor ps*5*

  20/03  Ps1+5V  0        V
  20/03  Ps1-5V  0        V
  20/03  Ps3+5V  5.39218   V
  20/03  Ps3-5V  -5.43724  V

SUCCESS!
20/03 MODULE>
```

Related Commands

colsep

paging

pattern

show (Terminal mode)

help

Syntax

help modeOption

Description

The **help** command is used alone to display onscreen help for all Terminal mode commands, or with a **modeOption** parameter to display help for a single command or function.

Note: Typing a question mark (?) character at the TERMINAL> command prompt gives the same result as typing help without a mode option parameter.

Parameters

The possible values for the **modeOption** parameter and their results are listed below.

modeOption	Description
<empty>	Displays onscreen help for all recognized Terminal mode commands.
<commandname>	Displays onscreen help for the specified command, if recognized.
edit	Displays onscreen help for command line editing and syntax.
commands	Displays onscreen help for global commands (exit, help, who, whoami).

Access Rights Required

Read, ReadWrite, or Admin

Example

```
TERMINAL> help

 terminal           - Enter terminal mode
 alarm             - Display active alarms for all modules
 colsep            - Set the separation character used in the CLI output
 headers           - Enable/disable the display of column headers in the CLI
 logout            - Log off this system
 manual            - Show detailed help text
 paging            - Set the paging behavior for long CLI output
 pattern           - Set the pattern matching style used in the CLI
 show              - Display the current values for the terminal states


TERMINAL>
```

Related Commands

help (CLI command mode)

help (Module command mode)

help (ICIM command mode)

logout

Syntax

logout

Description

The **logout** command is used to terminate the current CLI session. This command is available in every command mode.

Important:

- For Telnet operation, the computer you are using must have a network connection through which it can reach the ICIM2 using its IP address.
- No more than four Telnet sessions are allowed at one time.
- If IPsec is enabled on the ICIM2, it must also be enabled on the remote CLI user's computer.

CAUTION:

Always use the Logout command to close a serial port or Telnet CLI session. Closing a serial port session without issuing the Logout command leaves the session open for a possible future connection. This may allow unauthorized access by a new user if the previous user had a higher authorization privilege level.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
TERMINAL> logout
connection to host lost
C:\>
```

Related Commands

exit

manual

Syntax

manual

Description

The **manual** command is used to display onscreen instructions for Terminal command mode, or for another command mode if specified while another command mode is active.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

```
TERMINAL> manual

Try one of these help commands for details on specific modes:
  module manual
  terminal manual
  icim manual

General Hints:

  Keywords can be abbreviated to a unique prefix. For instance
  in CLI mode, the keyword 'MODULE' can be given as just 'm'
  or 'mod'.

  Use TAB to autocomplete a keyword.
  Use ? to list expected keywords or tokens (depends on previous input).
  Use BACKSPACE to erase previous characters.
  Use 'help edit' to display more editing commands

  Use Alarm in any mode to get a list of active alarms. When in Module
  mode, you can also narrow the list of active alarms to just those in
  the current ModSpec range. See the Module Help for further details.

  Note: entering a mode command (MODULE, ICIM, TERMINAL) enters that mode
  immediately but it is not indicated until the next prompt is displayed.

  The interface uses modes: CLI, MODULE, TERMINAL, and ICIM. The prompt
  reflects the current mode. Enter the mode name to enter that mode, and
  use EXIT to leave the mode and return to CLI mode.

To enter TERMINAL mode, just enter TERMINAL and newline.

Use Exit to leave Terminal mode, or Logout to exit the CLI interface

All keywords and parameters are caseless. That is, TeRmInAl == TERMINAL == terminal

Terminal Commands:
```

```
alarm
  Use the 'alarm' command to show all the current alarms.  This command
  works in all modes.

colsep
  Use the 'colsep' command to set the separation character used in the
  CLI output.  When the display is being parsed automatically rather
  than by a craft operator, it may be more useful to have columns that
  have a fixed character as a separator.  The default separator would
  have a typical module control display like this:
      MODID  NAME     SETTING    UNITS
      01/09  ServiceA  Off (0)

  while setting the separator to a comma would have this display:
      MODID,NAME,SETTING,UNITS
      01/09,ServiceA,Off (0)

exit
  Use the 'exit' command to return to CLI mode.  This command must be
  used before entering ICIM or MODULE mode.

headers
  Use the 'headers' command to enable or disable the display of column
  headers in the CLI.  By default, headers are enabled.

logout
  Use the 'logout' command to logout of the CLI session.  If the
  session is a telnet session, it will be closed.  If the session
  is the local console port, the login prompt will be given.

manual
  Use the 'manual' command to display this help.

paging
  User the 'paging' command to set the paging behavior for long CLI
  output.  The command parameter specifies the number of lines to
  display on a single page.  Once that number of lines is reached, the
  user is asked to hit a key to continue with the next page.  Setting
  the parameter to 0 will disable paging and all CLI output will be
  displayed as a single page.

pattern
  Use the 'pattern' command to set the pattern matching style used
  in the CLI.  Valid selections are regex or wildcard (default).

show
  Use the 'show' command to display the current values for the terminal
  settings for colsep, headers, paging and pattern parameters.

TERMINAL>
```

Related Commands

manual (CLI command mode)

manual (ICIM command mode)

manual (Module command mode)

help

paging

Syntax

paging digits

Description

The **paging** command is used to control paging behavior for long CLI output.

When paging is enabled in CLI, a feature called Smart Paging attempts to determine the best Telnet window size automatically. If it cannot do so, Smart Paging uses the number of lines specified in the Paging command as the Telnet window size. Smart Paging has no effect when paging is disabled.

Parameters

The **digits** parameter is zero (0) to disable paging completely, or a number to specify the height of the paging window in lines of text.

Access Rights Required

Read, ReadWrite, or Admin

Examples

With paging enabled, CLI output too long to fit in a single 24-line Telnet window is automatically paged using the familiar “more” format shown below.

```
CLI> module modid * exit

CLI> module show control * exit

  MODID  NAME     SETTING    UNITS
  20/05  Enable   1
  20/05  CwMode   0
  20/05  LoRFInh  0
  20/05  Master   Slave (0)
  20/05  RFDrive  0          dB
  20/06  Enable   1
  20/06  Master   1
  20/06  WaveLen  1550nm (1)
  20/06  NomPin   0          dBm
  20/07  Enable   1
  20/07  CwMode   1
  20/07  LoRFInh  1
  20/07  Master   Master (1)
  20/07  RFDrive  0          dB
  20/08  Cross    False (0)
  20/08  Bar      False (0)
  20/08  Mode     Auto (1)
  20/08  WaveLen  1550nm (1)
  20/08  NomPIn3  0          dBm
  20/08  NomPIn4  0          dBm
  20/08  Delta    6          dB
  20/08  HystAmpl 3          dB

Press any key to continue (Q to quit)
```

A craft operator can then either press any key to display the next page of output, or press **Q** to stop the flow of output.

However, the message "Press any key to continue (Q to quit)" may mean nothing to an element management system trying to parse this output format. The **paging** command can address this problem by turning off all paging, as shown below.

```
CLI> terminal paging 0 exit

CLI> module modid * exit

CLI> module show control * exit
```

```
 MODID  NAME      SETTING     UNITS
 01/05  Enable    On (1)
 01/05  AGC       On (1)
 01/05  RFDrive   0          dB
 01/05  OMISet    0          dB
 01/05  Master    Master (1)
 01/05  CWMode    Off (0)
 01/05  LenMode   Off (0)
 01/07  Enable    On (1)
 01/07  SetAtten  0          dB
 01/07  Master    Master (1)
 01/07  LoInpEna  Off (0)
 01/07  Service   Off (0)
 01/08  Enable    On (1)
 01/08  SetAtten  0          dB
 01/08  Master    Master (1)
 01/08  LoInpEna  Off (0)
 01/08  Service   Off (0)
 01/09  Enable    On (1)
 01/09  SetAtten  0          dB
 01/09  Master    Master (1)
 01/09  ServiceA  Off (0)
 01/09  ServiceB  Off (0)
 01/12  Enable    On (1)
 01/12  SetAtten  0          dB
 01/12  Master    Master (1)
 01/12  ServiceA  Off (0)
 01/12  ServiceB  Off (0)
 10/09  Enable    On (1)
 10/09  SetAtten  0          dB
 10/09  Master    Master (1)
 10/09  LoInpEna  Off (0)
 10/09  Service   Off (0)
 76/06  Cross     False (0)
 76/06  Bar       False (0)
 76/06  Mode      Auto (1)
 76/06  WaveLen   1550nm (1)
 76/06  NomPin3   19         dBm
 76/06  NomPin4   19         dBm
 76/06  Delta     2          dB
 76/06  HystAmpl  1          dB
 76/06  HystTime  1          sec
 76/06  Revert    Auto (1)
 76/06  PrimInp   Port_4 (1)
 76/06  DfltSw    Bar (1)
 76/08  Enable    On (1)
 76/08  SetAtten  0          dB
 76/08  Master    Master (1)
 76/08  LoInpEna  Off (0)
 76/08  Service   Off (0)
 76/10  Enable    On (1)
 76/10  SetAtten  0          dB
 76/10  Master    Master (1)
 76/10  ServiceA  Off (0)
 76/10  ServiceB  Off (0)

SUCCESS!
CLI>
```

The **paging 0** setting can be useful in allowing an element management system or other interacting program to capture all CLI output at once.

Related Commands

colsep

headers

pattern

show (Terminal mode)

pattern

Syntax

pattern patternStyle

Description

The **pattern** command is used to select one of two pattern matching styles for the names of monitor, control, and alarm parameters. This setting controls whether CLI supports Windows style pattern matching (which includes the * wildcard character as well as ? and [xyz] patterns) or POSIX regular expression (regex) pattern matching as used in many Unix and Perl programs.

The default is Windows-style or **wildcard** pattern matching. The **regex** style includes a much more powerful but also more complex pattern matching format. While a full description of regex pattern matching is beyond the scope of this document, a good overview of the subject is available via the public internet at:

- http://en.wikipedia.org/wiki/Regular_expression

More detailed information is available via links at the end of the above article. For additional details, see other resources available on the internet for Perl or Boost, such as:

- http://perldoc.perl.org/
- http://www.boost.org/

Parameters

The **patternStyle** parameter can have one of two values:

patternStyle	Description
wildcard	Standard Windows-style wildcard pattern matching.
regex	POSIX regular expression pattern matching.

Access Rights Required

Read, ReadWrite, or Admin

Examples

When the default Windows-style wildcard pattern matching is in effect, CLI interprets wildcards as shown in the following sample dialogs.

```
20/03 MODULE> show monitor ps*

  MODID  NAME    VALUE    UNITS
  20/03  Ps1Inst  0        Inst
  20/03  Ps1+24V  0        V
  20/03  Ps1+5V   0        V
  20/03  Ps1-5V   0        V
  20/03  Ps1Temp  0        degC
  20/03  Ps3Inst  1        Inst
  20/03  Ps3+24V  24.4629   V
  20/03  Ps3+5V   5.39218   V
  20/03  Ps3-5V   -5.43724  V
  20/03  Ps3Temp  30.4215   degC

SUCCESS!
20/03 MODULE> show monitor ps*5*

  MODID  NAME   VALUE    UNITS
  20/03  Ps1+5V  0        V
  20/03  Ps1-5V  0        V
  20/03  Ps3+5V  5.39218   V
  20/03  Ps3-5V  -5.43724  V

SUCCESS!
20/03 MODULE>
```

Related Commands

colsep

headers

paging

show (Terminal mode)

show

Syntax

show

Description

The **show** command is used to display the current values for the **colsep**, **headers**, **paging**, and **pattern** terminal states.

Parameters

None

Access Rights Required

Read, ReadWrite, or Admin

Example

A typical response to this command is shown in the following sample craft operator dialog.

```
TERMINAL> show

Terminal Settings:

   COLSEP  ""
   PAGING  24 LINES PER PAGE
   PATTERN WILDCARD
   HEADERS 1 (Enabled)

SUCCESS!
TERMINAL>
```

Related Commands

colsep

headers

paging

pattern

7

ICIM Web Interface

Introduction

This chapter describes the features and operation of the Web Interface for the ICIM2 that is supported beginning with Prisma II EMS System Release 2.0.

In This Chapter

Introduction

The ICIM Web Interface is a set of HTML pages hosted by the web server in the ICIM2. These pages display information about the ICIM2 and other modules in the ICIM2 domain. For authorized users, these pages also allow for adjustment of certain parameter values.

Users navigate and interact with the ICIM Web Interface through the use of menus and hyperlinks, just as with a typical web site. This chapter describes the steps for logging in and navigating the interface and for using each of its screens.

The ICIM Web Interface uses SNMP as the underlying communication protocol and provides a subset of CLI functionality. However, use of the interface requires no knowledge of either SNMP or CLI. For the benefit of users already familiar with SNMP or CLI, this chapter includes tables that identify the command equivalent(s) for elements of the ICIM Web Interface.

Note: For these pages to work properly, both JavaScript and cookies must be enabled in your web browser.

Web Browsers Supported

The ICIM Web Interface is designed for compatibility with the following web browsers.

- Mozilla for Unix or Linux, version 1.7
- Microsoft Internet Explorer for Windows, version 6

Other browsers are potentially compatible, but are not officially supported.

Information Color Code

The following color coding scheme is used throughout all pages of the ICIM Web Interface.

- Items shown in red signal conditions that require prompt user attention.
- Items shown in blue are links to pages with more details.
- Items shown in black signal normal conditions or values falling within nominal limits.

Online Help

Help is accessible from within the application. The Help page provides general help on the application itself. The information it contains is essentially a condensed version of the information in this chapter.

Note: For security reasons, users may not have access to every page of the ICIM Web Interface. If a particular page is unavailable to a user because of access level (Read Only, ReadWrite, or Admin), the corresponding Help section may also be unavailable.

Installation

The ICIM Web Interface is already resident in the ICIM2 firmware. All that is needed for access is to install an appropriate web browser and point it to the ICIM2 IP address. Your system administrator can provide the IP address for this page in your installation.

Note: System Release 2.01 and later support Mozilla for Unix or Linux, Version 1.7 and Microsoft Internet Explorer for Windows, Version 6.

To Install the Web Interface for Windows

To download the instructions for installing Internet Explorer 6 for Windows, use your current browser to access the links for installation provided at http://www.microsoft.com.

To Install the Web Interface in Solaris

To download the instructions for installing Mozilla 1.7 on Sparc Workstations (Solaris 8 and 9), use your current browser to access the links for installation provided at http://www.mozilla.org.

Web Browser Setup

Before logging in, you must set up the web browser for compatibility with the ICIM Web Interface. This involves:

- Enabling support for JavaScript
- Allowing cookies to be set
- Disabling auto-complete

Procedures for web browser setup are provided below for each of the supported web browsers.

Setup for Mozilla 1.7

Complete the following steps to set up Mozilla 1.7 for compatibility with the ICIM Web Interface.

Enable JavaScript Support

1. On the browser menu bar, select **Edit | Preferences**.
2. Double-click **Advanced** in the left pane.
3. Check the **Enable Java** checkbox.
4. Click **Scripts & Plugins** in the left pane.
5. Check the **Navigator** checkbox.
6. Click **OK**, and then close the window.
7. Reload the page.

Allow for Cookies

1. From the Tools menu, click **Cookies Manager**.
2. Select one of the following options that allow Mozilla to accept cookies:
   - Use default cookie permissions
   - Allow cookies from this site
3. Close the window.
4. Reload the page.

Disable Auto-Complete

1. On the browser menu bar, select **Edit | Preferences**.
2. Select **Privacy & Security** from the Categories tree in the left pane.
3. Expand the tree item, and then select **Passwords**.
4. Clear the **Remember passwords** checkbox in the password manager box.

Setup for Internet Explorer 6

Complete the following steps to set up Internet Explorer 6 for compatibility with the ICIM Web Interface.

Enable JavaScript Support

1. Select **Tools | Internet Options**.
2. Click the **Security** tab.
3. Click the **Custom Level** button.
4. Scroll down to the **Scripting** section.
5. Select **Enable** for all three scripting categories.
6. Click **OK**.
7. If a message appears asking you to confirm your selections, click **Yes**.
8. Click **OK**, and then close the window.
9. Reload the page.

Allow for Cookies

1. Select **Tools | Internet Options**.
2. Click the **Privacy** tab.
3. Move the slide bar to the **middle** notch.
4. Click **OK**.
5. If a message appears asking you to confirm your selections, click **Yes**.
6. Click **OK**, and then close the window.
7. Reload the page.

Disable Auto-Complete

1. On the browser main menu bar, select **Tools | Internet Options**.
2. Select the **Content** tab, and then press the **Auto-complete** button.
3. Clear the checkbox for using **Auto-complete for username and passwords on forms**.

Login and Logout

To use the ICIM Web Interface, you must enter a valid User ID and Password. The default User ID and Password are given below.

- User ID: **Administrat0r**
- Password: **AdminPassw0rd**

Note:

- The default User ID and Password each have a zero (0) in place of the expected "o" character.
- For security reasons, it is recommended that the default user be changed immediately. For additional information, see **User Management** in the installation guide for your system release.

To Log In

Complete the following steps to log into the ICIM2.

1. Confirm that your web browser is set up as described in ***Web Browser Setup*** (on page 183).
2. Obtain the IP address of the ICIM Web Interface Login page from your system administrator.
3. Open your web browser and type the IP address of the ICIM Web Interface login page (e.g., **172.24.25.175**) in the browser address bar.
4. Press the **Enter** key or click the **Go** button. The ICIM Login page appears.

5 Type your **User ID** and **Password** in the fields provided, and then click the **Login** button. The ICIM Welcome page appears.

6 Use one of the following navigation methods as appropriate:

- Click **Next** to go to the System View page. Or, wait 10 seconds to be taken to System View automatically.
- Use the menu at the left of the screen to go directly to System View or to choose another page of interest.

CAUTION:

Always log out of the Web Interface before closing the browser. Use the Logout link at the bottom of the navigation pane on the left side of the page.

Closing the browser before logging out causes the session to "hang" for the duration of a timeout interval. Because the ICIM supports a limited number of such sessions, one hung session could prevent access to the Web Interface or CLI by you or other users.

To Log Out

Complete the following steps to log out of the ICIM Web Interface.

1 Click **Logout** in the main menu. The ICIM Web Interface Logout page appears.

2 Close your browser window as a security precaution.

You are now logged out

Please close your browser for security

Login to ICIM

CAUTION:

Always log out of the Web Interface before closing the browser. Use the Logout link at the bottom of the navigation pane on the left side of the page.

Closing the browser before logging out causes the session to "hang" for the duration of a timeout interval. Because the ICIM supports a limited number of such sessions, one hung session could prevent access to the Web Interface or CLI by you or other users.

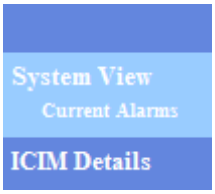
To Change Login Defaults

Complete the following steps to change the default user name and password.

1. Add a new user with Admin Level privileges.
2. Log out of the default user account, and then log back in using the new Admin level account.
3. Locate the original default user name in the list of users. Click the **Delete** button beside the default user name to delete it from the list.

Important: Note your new login defaults for future reference. Failure to remember your new user ID and password may result in being locked out of the ICIM2 permanently. You cannot revert to the default user name and password once they are deleted.

Using System View



The System View page displays manufacturing information for the ICIM2 and selected modules. System View also allows you to view the current alarms for the ICIM2 and any application modules in the domain.

To View ICIM Information

The default selection, System View, displays the following information about the ICIM2:

ICIM Information (details)

Chassis / Slot	1 / 17
IP Address	172.18.50.151
Serial Number	~AAVGTHZ
CLLI Code	ICIM01
Alarm Count	2 Alarms
sysLocation	SVT-LAB
Device Type	5011

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This table contains at least one, and possibly two, hyperlinks to other pages of the interface.

- Clicking the **details** link in the title takes you to the ICIM Details screen.
- Clicking the **Alarm Count** link when alarms are active takes you to the Current Alarms table.

These pages are described in later sections of this chapter.

To View Module Summary

The Module Summary table at the bottom of the System View page lists the modules in the ICIM2 domain and identifies their chassis and slot locations, module types (if reported by the module) and devtypes, and the number of alarms currently active.

Module Summary

Chassis/Slot	Module Name	Mod Type	Dev Type	Alarms	Details
1/0	Fan Tray	Prisma II	5012	0	Details
1/1	Power Supply 1		5013	0	Details
1/3	Power Supply 3		5013	0	Details
1/5	1550nm EM TX FTTP		1031	0	Details
1/6	1550nm EM TX FTTP		1031	0	Details
1/7	1550nm Pre-Amp FTTP	1x21.50	3030	0	Details
1/8	1550nm Pre-Amp FTTP	1x21.50	3030	0	Details
1/9	Optical Switch FTTP		4011	0	Details
1/10	1550nm Post-Amp FTTP	18x18.90	3031	0	Details
1/13	Forward Receiver	Scientific Atlanta Prisma II	2009	0	Details
2/0	Fan Tray		5012	0	Details

Note: Clicking the **Details** link for a particular module displays the Module Details page, described in a later section.

To View Current Alarms

To view current alarms in the system, click the **Current Alarms** submenu item.

The Current Alarms page appears, displaying any active alarms in a table similar to the one shown below.

Current Alarms

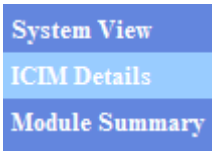
Chas / Slot	Label	Time	Description
1/3	Ps3+24	Fri, 03 Nov 2006 16:34:42 EST	Module=Power Supply 3 , Model=5013

In this table:

- Chas/Slot is the number of the chassis and slot in which the module is located.
- Label is the name of the alarm.
- Time is the time at which the module went into alarm.
- Description is the module description.

Note: When troubleshooting alarms, additional diagnostic information is available from the System Settings and the Event Log pages. These pages are described in later sections of this chapter.

Using ICIM Details

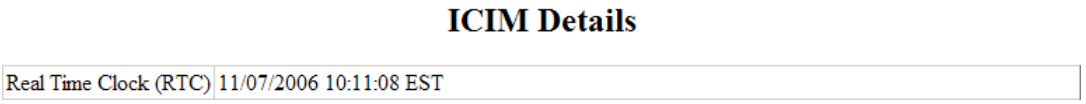


Clicking the ICIM Details menu option displays the ICIM Details screen. This screen includes two kinds of information:

- A Time and Date stamp shows when the page was last updated.
- An ICIM Details table displays various ICIM2 parameters, and allows you to change the CLLI Code.

Time and Date Stamp

The Time and Date stamp shows the time that the screen on which it appears was last updated. To view the most recent information, you must update the page by choosing the **Refresh** option in your browser.



The Time and Date stamp shows the current time zone in abbreviated form. Time zone abbreviations are listed below for reference.

Abbreviation	Time Zone
ADT	Alaska Daylight Time
AST	Alaska Standard Time
BST	British Summer Time
CDT	Central Daylight Time
CEST	Central European Summer Time
CET	Central European Time
CST	Central Standard Time
EDT	Eastern Daylight Time
EEST	Eastern European Summer Time
EET	Eastern European Time
EST	Eastern Standard Time
GMT	Greenwich Mean Time
HDT	Hawaii-Aleutian Daylight Time

Abbreviation	Time Zone
HKT	Hong Kong Time
HST	Hawaii-Aleutian Standard Time
IST	Irish Summer Time
KUYT	Kuybyshev Time
MDT	Mountain Daylight Time
MSD	Moscow Summer Time
MSK	Moscow Standard Time
MST	Mountain Standard Time
PDT	Pacific Daylight Time
PST	Pacific Standard Time
SAMT	Samara Time
WEST	Western European Summer Time
WET	Western European Time

Note: If a time zone is not entered, the default time zone "EST" appears.

To Work with ICIM Details

The ICIM Details table lists the ICIM2 details that are most commonly referred to for system configuration and maintenance.

ICIM Details

Real Time Clock (RTC)	04/25/2008 12:28:07 EST
Chassis / Slot	1 / 17
Domain Size	15
IP Address	172.18.50.151
IP Subnet Mask	255.255.255.0
IP Gateway	172.18.50.254
MAC Address	00:1a:c3:d1:4e:5b
CLLI Code	
CLEI Code	
Manufacture Data	ICIM2
Serial Number	~AAXMGVK
Hardware Revision	BdRev87A
Active Software Rev	2.03.01
Inactive Software Rev	N/A
Time Of Service	668 Hours
Self Test Message	ICIM Self-test Passed
DownLoad Status	1
sysDescr	Scientific-Atlanta Prisma II ICIM2
sysUptime	7 days 23:40:08
Device Type	5011

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Apply Cancel

As suggested by the appearance of the CLLI Code field above, the CLLI code is user-configurable.

- To change this parameter, click inside the CLLI Code field, type the new entry, and then click the **Apply** button or press **Enter**.
- To abort the entry of a parameter, click **Cancel** before clicking Apply.

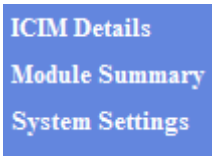
ICIM CLI and SNMP Equivalents

The information displayed on this page may also be seen by passing CLI commands to the ICIM2 or by viewing the MIB objects via SNMP. The corresponding CLI commands or MIB objects are listed below.

ICIM Web Interface Field	CLI Command	SNMP MIB Object
Time and Date	ICIM> show clock	p2icimClock
Time Zone	ICIM> info tzone	p2icimTimeZone
Chassis / Slot	ICIM> info chassis slot	p2icimChassisID p2icimSlotID
Domain Size	ICIM> info size	p2icimDomainSize
IP Address	ICIM> info IP	p2icimIPAddr
IP Subnet Mask	ICIM> info subnet	p2icimSubnetMask
IP Gateway	ICIM> info gateway	p2icimGatewayAddr
MAC Address	ICIM> info MAC	p2icimMACAddr
CLLI Code	ICIM> info CLLI	p2icimCLLICode
CLEI Code	ICIM> info CLEI	p2icimCLEICode
Manufacture Data	ICIM> info mandata	p2manufactureData
Serial Number	ICIM> info serial	p2icimSerialNumber
Hardware Revision	ICIM> info hwrev	p2icimHardwareRevision
Active Software Rev	ICIM> info activerev	p2icimActiveCodeRevision
Inactive Software Rev	ICIM> info inactiverev	p2icimInactiveCodeRevision
Time Of Service	ICIM> info TOS	p2icimTimeOfService
Self Test Message	ICIM> info selftest	p2icimSelfTest
DownLoad Status	ICIM> info downldstate	p2icimDownLdState
sysDescr	na	MIB-2: sysDescr
sysUptime	na	MIB-2: sysUpTime
Device Type	ICIM> info devtype	p2icimType

For additional information, see the installation guide for your system release.

Using Module Details



Clicking the **Module Summary** menu option navigates to the lower portion of the System View screen, which contains the list of modules in the ICIM2 domain.

Note: In a large system, you may have to scroll the page to view all of the modules.

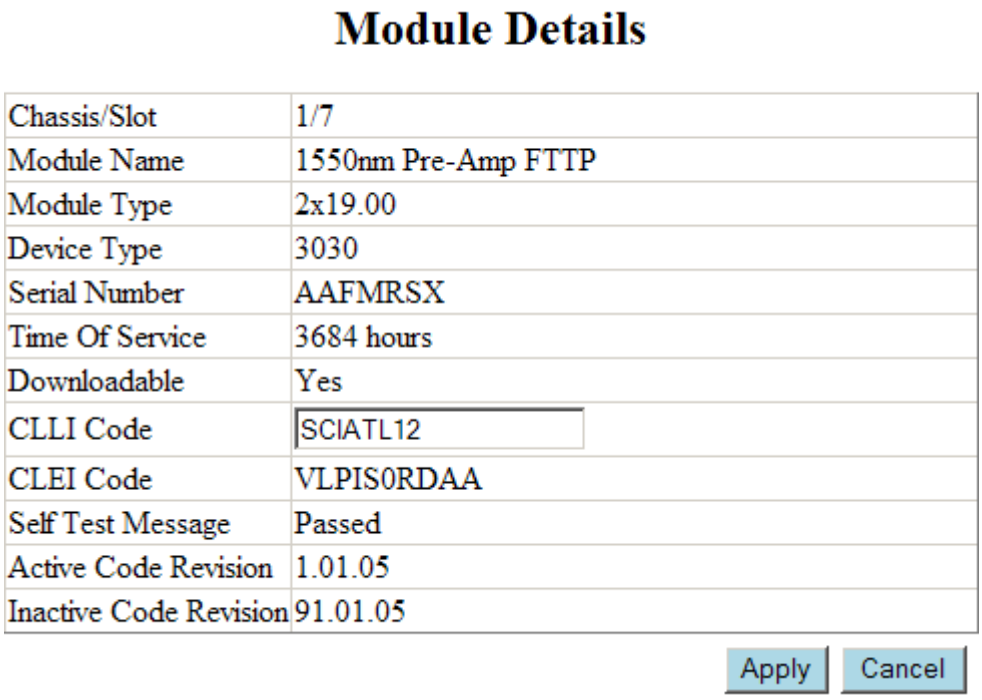
Module Summary

Chassis/Slot	Module Name	Mod Type	Dev Type	Alarms	Details
1/0	Fan Tray	Prisma II	5012	0	Details
1/1	Power Supply 1		5013	0	Details
1/3	Power Supply 3		5013	0	Details
1/5	1550nm EM TX FTTP		1031	0	Details
1/6	1550nm EM TX FTTP		1031	0	Details
1/7	1550nm Pre-Amp FTTP	1x21.50	3030	0	Details
1/8	1550nm Pre-Amp FTTP	1x21.50	3030	0	Details
1/9	Optical Switch FTTP		4011	0	Details
1/10	1550nm Post-Amp FTTP	18x18.90	3031	0	Details
1/13	Forward Receiver	Scientific Atlanta Prisma II	2009	0	Details
2/0	Fan Tray		5012	0	Details
2/1	Power Supply 1		5013	0	Details
2/3	Power Supply 3		5013	0	Details
2/5	1550nm Post-Amp FTTP	22X18.1	3031	0	Details
2/7	1550nm Post-Amp FTTP	22x18.10	3031	0	Details
2/9	1550nm Post-Amp FTTP	22x18.10	3031	0	Details
2/11	1550nm Post-Amp FTTP	22x18.10	3031	0	Details
2/13	1550nm Post-Amp FTTP	22x18.10	3031	0	Details
2/15	1550nm Post-Amp FTTP	22x18.10	3031	0	Details
3/0	Fan Tray		5012	0	Details
3/1	Power Supply 1		5013	0	Details
3/3	Power Supply 3		5013	0	Details
3/5	1550nm Post-Amp FTTP	24x17.65	3031	0	Details
3/7	1550nm Post-Amp FTTP	24x17.65	3031	0	Details
3/9	1550nm Post-Amp FTTP	24x17.65	3031	0	Details
3/11	1550nm Post-Amp FTTP	24x17.65	3031	0	Details
3/13	1550nm Post-Amp FTTP	24x17.65	3031	0	Details
3/15	1550nm Post-Amp FTTP	24x17.65	3031	0	Details
4/0	Fan Tray		5012	0	Details
4/1	Power Supply 1		5013	0	Details
4/3	Power Supply 3		5013	0	Details
4/5	1550nm Post-Amp FTTP	18x18.90	3031	0	Details
4/7	1550nm Post-Amp FTTP	18x18.90	3031	0	Details
4/9	1550nm Post-Amp FTTP	18x18.90	3031	0	Details
4/11	1550nm Post-Amp FTTP	18x18.90	3031	0	Details
4/13	1550nm Post-Amp FTTP	18x18.90	3031	0	Details

To View Module Details

When you click **Details** in the Module Summary table in System View, the Module Details screen for the corresponding module appears, as shown in the example below.

Note: When viewing module details, always use the links provided on the Module Details screen. Attempts to access this information by editing the URL in the browser address bar may cause unexpected results.



As suggested by the appearance of the CLLI Code field above, the CLLI code is user-configurable.

- To define or change the CLLI code for the module, click inside the CLLI Code field, type the code, and then click the **Apply** button.
- To abort the change, click **Cancel** before clicking Apply.

When the Module Details screen appears, a submenu lets you select Alarms, Thresholds, Controls, and Monitors for the module.

These options are described below.

To View Alarms

To view the status of all alarms for the chosen module, click the **Alarms** submenu option. The Alarm Status table appears.

Alarm Status
1550nm Pre-Amp FTTP
(Chassis/Slot: 1/7)

Label	Value	Type
PsOk	0 (ok)	6
OutPwr	0 (major low)	1
IntPs	0 (ok)	6
Enable	0 (ok)	6
LasTemp	2 (ok)	3
LasBias	2 (ok)	1
InPwr	0 (major low)	1
Service	0 (ok)	5

To View Thresholds

To view the current threshold values for all alarms for the chosen module, click the **Thresholds** submenu option. The Module Alarm Thresholds table appears.

Module Alarm Thresholds
1550nm Pre-Amp FTTP
(Chassis/Slot: 1/7)

Label	Type	Major Low	Minor Low	Value	Minor High	Major High	Hysteresis	Range Low	Range High	
PsOk	6	N/A	N/A	0 (ok)	N/A	N/A	N/A	N/A	N/A	
OutPwr	1	-1	-0.7	0 (major low)	0.7	1	0.7	-3276.8	3276.7	Apply
IntPs	6	N/A	N/A	0 (ok)	N/A	N/A	N/A	N/A	N/A	
Enable	6	N/A	N/A	0 (ok)	N/A	N/A	N/A	N/A	N/A	
LasTemp	3	-20	-15	2 (ok)	15	20	1	N/A	N/A	
LasBias	1	-2	-1	2 (ok)	-0.01	-0.001	0.001	-32.768	32.767	Apply
InPwr	1	-16	-5	0 (major low)	25	45	1	-3276.8	3276.7	Apply
Service	5	N/A	N/A	0 (ok)	N/A	N/A	N/A	N/A	N/A	

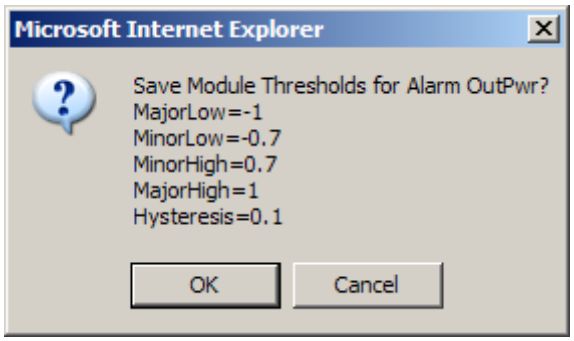
Cancel

If any of the alarms have user-adjustable threshold values, these values are shown in ruled fields to indicate that they are editable.

- To change a threshold value, click inside the field, type the desired value, and then either click the **Apply** button to the right of the row containing the field. Or, you may press **Enter** to invoke the changes on that row immediately.
- To abort the change, click the **Cancel** button before clicking Apply. Clicking Cancel reloads the page, discarding any unapplied changes.

Note: Clicking Apply updates all fields in the corresponding row. For this reason, double-check the values in all editable fields before applying changes.

After you click Apply, a popup window appears asking you to confirm the save operation:



Click **OK** to confirm, or click **Cancel** to abort.

To View Controls

To review the control parameters for the chosen module, click the **Controls** submenu option. The Module Controls table appears.

Module Controls
1550nm Pre-Amp FTTP
(Chassis/Slot: 1/7)

Label	Value	Units / Choices	Low	High	Step	
Enable	1	(0) Off, (1) On	0	1	1	Apply
SetAtten	0	dB	0	3	1	Apply
Master	1	(0) Slave, (1) Master	0	1	1	Apply
LoInpEna	0	(0) Off, (1) On	0	1	1	Apply
Service	0	(0) Off, (1) On	0	1	1	Apply

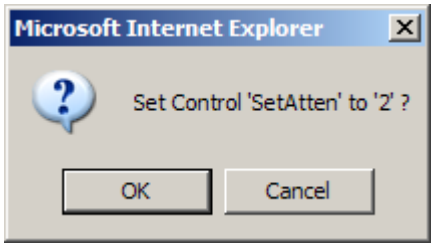
Cancel

If any of the control parameters have user-adjustable threshold values, these values are shown in ruled fields to indicate that they are editable.

- To change a control value, click inside the field, type the desired value, and then either click the **Apply** button to the right of the row containing the field. Or, you may press **Enter** to invoke the changes on that row immediately.
- To abort the change, click the **Cancel** button before clicking Apply. Clicking Cancel reloads the page, discarding any unapplied changes.

Note: Clicking Apply updates all fields in the corresponding row. For this reason, double-check the values in all editable fields before applying changes.

After you click Apply, a popup window appears asking you to confirm the save operation:



Click **OK** to confirm, or click **Cancel** to abort.

To View Monitors

To review the monitor parameters for the chosen module, click the **Monitors** submenu option. The Module Monitors table appears.

Module Monitors
1550nm Pre-Amp FTTP
(Chassis/Slot: 1/7)

Label	Value	Units
InPwr	-50	dBm
OutPwr	-50	dBm
LasTemp	24.9974	degC
LasBias	0.00392577	A
LasLim	0.87741	A
TecCur	0.0146995	A
ModTemp	29.25	degC
LaserOn	5916	hrs

Note:

- The Module Monitors table is read-only.
- This table sometimes displays values to several decimal digits of precision, but only the first three or four digits are significant. For example, 0.0146995 A in the example above should be read as 0.15 A.

Module CLI and SNMP Equivalents

The information displayed on this page may also be seen by entering CLI commands in the ICIM2 or by viewing the MIB objects via SNMP. The corresponding CLI commands or MIB objects are listed below.

ICIM Web Interface Field	CLI Command (for module in chassis 3, slot 7)	SNMP MIB Object (P2moduleTable)
Chassis / Slot	*/* module> modid 0307 03/07 module>	p2chassisID p2slotID
Module Name	03/07 module> info module name	p2moduleName
Module Type	03/07 module> info module modtype	p2manufactureData
Device Type	03/07 module> info module devtype	p2moduleType
Serial Number	03/07 module> info module serial	p2serialNumber
Time of Service	03/07 module> info module tos	p2timeOfService
Downloadable	03/07 module> info module downloadable	p2moduleDownloadable
CLLI Code	03/07 module> info module CLLI	p2moduleCLLICode
CLEI Code	03/07 module> info module CLEI	p2moduleCLEICode
SelfTest Message	03/07 module> info module selftest	p2moduleSelfTest
Active Software Revision	03/07 module> info module activerev	p2activeCodeRevision
Inactive Software Revision	03/07 module> info module inactiverev	p2inactiveCodeRevision

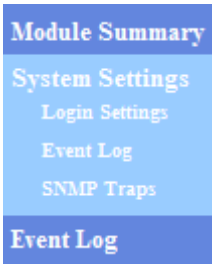
ICIM Web Interface Field	CLI Command (for module in chassis 3, slot 7)	SNMP MIB Object (P2moduleAlarmTable)
Module Details / Alarms	03/07 module> show alarmstate *	p2almLabel p2almValue p2almType

ICIM Web Interface Field	CLI Command (for module in chassis 3, slot 7)	SNMP MIB Object (P2moduleAlarmTable)
Module Details / Thresholds	03/07 module> show alarmparam * majorlow	p2almMajorLowLimit
	03/07 module> show alarmparam * minorlow	p2almMinorLowLimit
	03/07 module> show alarmparam * minorhigh	p2almMinorHighLimit
	03/07 module> show alarmparam * majorhigh	p2almMajorHighLimit
	03/07 module> show alarmparam * hysteresis	p2almHysteresis

ICIM Web Interface Field	CLI Command (for module in chassis 3, slot 7)	SNMP MIB Table
Module Details / Controls	03/07 module> show control *	p2moduleControlTable
Module Details / Monitors	03/07 module> show monitor *	p2moduleMonitorTable
Current Alarms	03/07 module> alarm	p2moduleCurrentAlarmTable

For additional information, see the installation guide for your system release.

Using System Settings



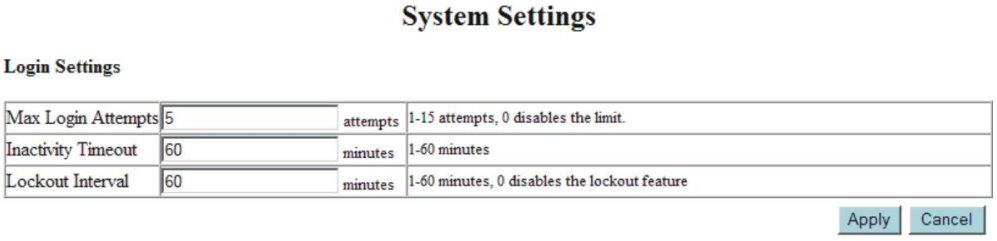
The System Settings page allows users with Admin privileges to review and, where possible, change settings that control Login functionality, the event log, and SNMP traps.

To change any of these settings, click in the appropriate field and type the desired setting.

- To save the changes, click the **Apply** button beneath the settings table, or press **Enter**.
- To cancel an entry and restore the previous setting, click the **Cancel** button before clicking Apply.

Login Settings

The following Login Settings parameters may be adjusted.



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The fields in this table have the following meanings.

- Max Login Attempts - the number of times a user can try unsuccessfully to log into the ICIM Web Interface. A trap is sent to alert management of each failed login attempt. This parameter can be set from 1 to 15 attempts. If Max Login Attempts is set to 0, this feature is disabled and user login failures are not tracked.
- Inactivity Timeout - the length of time over which the lack of user activity will trigger an automatic logoff. This parameter may be set from 1 to 60 minutes. The default is 10 minutes.

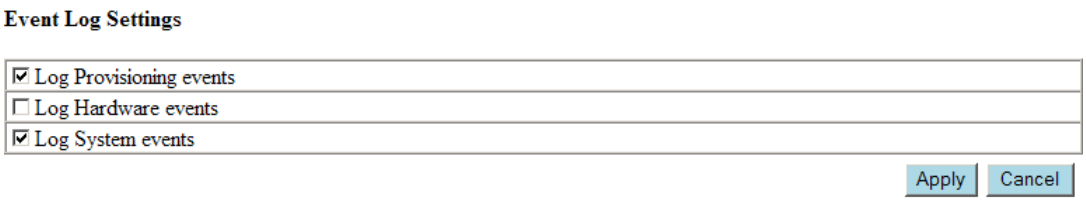
  The inactivity timeout applies to CLI and Web sessions alike. If a Web session is improperly closed, i.e., if the browser is closed before logging out, the inactivity timeout determines how long the session will "hang."

- Lockout Interval - the length of time that users are prevented from logging in after they reach the maximum number of login attempts. This parameter may be set from 1 to 60 minutes, or may be set to 0 to disable User Lockout.

Note: Never change the User Lockout interval while a user is locked, as this may result in an unexpected actual lockout interval for the user.

Event Log Settings

The event log keeps a record of the last 5,000 events involved with ICIM2 communication and module management.



The following types of events can be selected for inclusion in the event log:

- Provisioning - events related to configuring modules, such as changing alarm thresholds, hysteresis, or control parameters.
- Hardware - module insertion or removal events.
- System - events related to downloads, reboots, formatting, or clearing the Event Log.

The following types of events are always included in the event log:

- Administration - events related to changing login parameters, user information, trap destinations, and clock settings
- Security - events related to ICIM2 login, logout, and control of IPsec

Administration and Security events are always included in the event log. Logging of these events cannot be disabled.

SNMP Traps

The SNMP Traps table allows you to enable up to 10 trap destinations and set the IP address of each destination. Clicking inside the checkbox for a trap destination alternately enables and disables it.

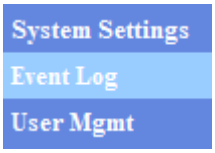
All trap destinations are IP addresses with SNMP Managers. SNMP Managers are entities such as notification groups, dispatch centers, and work order generation systems that take specified actions on receipt of the trap.

SNMP Traps

Trap Destination 0	☑ Enabled	172.24.25.176	IP address of SNMP Manager to receive traps.
Trap Destination 1	☑ Enabled	172.24.25.3	IP address of SNMP Manager to receive traps.
Trap Destination 2	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 3	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 4	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 5	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 6	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 7	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 8	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.
Trap Destination 9	☐ Enabled	255.255.255.255	IP address of SNMP Manager to receive traps.

Apply Cancel

Using the Event Log



Clicking the Event Log menu item displays the event log, which lists the significant actions performed by each system user.

You can view the event log and completely clear its contents, if desired.

To View the Event Log

To access the event log, click the **Event Log** menu item.

If the event log contains more than one page, a page navigation control appears above the left side of the event log table.

- To advance in the table, click **Next** or a higher page number.
- To return to a previous page in the table, click **Previous** or a lower page number.

Event Log

Clear Event Log

<<Previous [1, 2, 3, 4] Next>> Page 1 of 4

Timestamp	Action	User ID	Description	Sec Level	Category
11/07/06 10:08:06	Login Success	document2	Login successful	Admin	Security
11/07/06 10:07:45	Log Off	document2	Log Off	Admin	Security
11/07/06 10:07:18	Login Success	document2	Login successful	Admin	Security
11/07/06 09:45:35	Log Off	Administrat0r	Log Off	Admin	Security
11/07/06 09:45:30	Change User	Administrat0r	Add user sysAdmin175	Admin	Administration
11/07/06 09:44:59	Change User	Administrat0r	Delete user webberry3	Admin	Administration
11/07/06 09:44:53	Change User	Administrat0r	Add user document2	Admin	Administration
11/07/06 09:44:28	Login Success	Administrat0r	Login successful	Admin	Security
11/07/06 09:35:36	Login Failed	document2	Login name is not found: document2	Unknown	Security
11/06/06 07:42:20	Login Failed	document2	Login name is not found: document2	Unknown	Security
11/06/06 07:41:21	Session Timeout	Administrat0r	Log Off due to inactivity timeout	Admin	Security
11/03/06 17:32:28	Session Timeout	Administrat0r	Log Off due to inactivity timeout	Admin	Security
11/03/06 16:34:31	Alarm Param	Administrat0r	Set module (1/3) alarm parameter for Ps3+24: Minor Low Limit = 18.4	Admin	Provision
11/03/06 16:34:31	Alarm Param	Administrat0r	Set module (1/3) alarm parameter for Ps3+24: Hysteresis = 1	Admin	Provision
11/03/06 16:34:31	Alarm Param	Administrat0r	Set module (1/3) alarm parameter for Ps3+24: Major High Limit = 25	Admin	Provision
11/03/06 16:34:31	Alarm Param	Administrat0r	Set module (1/3) alarm parameter for Ps3+24: Minor High Limit = 22	Admin	Provision
11/03/06 16:34:31	Alarm Param	Administrat0r	Set module (1/3) alarm parameter for Ps3+24: Major Low Limit = 18	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control WaveLen to 0	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control DfltSw to 1	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control PrimInp to 1	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control Revert to 1	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control HystTime to 60	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control HystAmpl to 1	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control Delta to 2	Admin	Provision
11/03/06 16:33:42	Module Ctrl	Administrat0r	Set module (1/9) control NomPin4 to 19	Admin	Provision

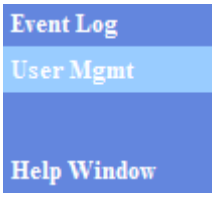
The Event Log table lists the following information.

- Timestamp - The time at which the event was logged.
- Action - The name of the event that triggered the log entry.
- User ID - The login name of the user who performed the action.
- Description - A brief description of the action that triggered the log entry.
- Sec Level - The security level of the user who performed the event.
- Category - The type of event that was logged: Administration, Hardware, Provision, Security, or System.

To Clear the Event Log

To empty the contents of the event log, click the **Clear Event Log** button immediately below the table title. After clearing the table, a record of the action is added to the newly cleared event log and a trap is sent.

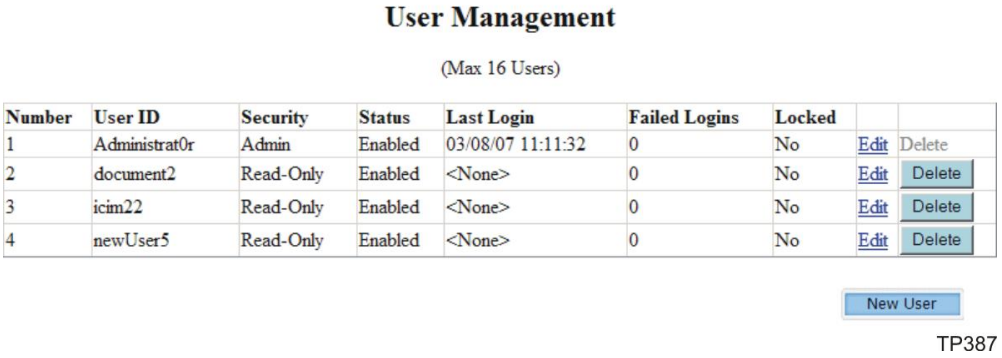
User Management



The User Management page allows users with Admin privileges to manage ICIM2 user accounts. Users may log in through the CLI or the ICIM Web Interface.

The User Management table lists all user records and their status. You can add a new user, edit the security information for an existing user, change a password, or unlock user accounts.

If a user is deleted, there is no further record of the user apart from any related information saved in the event log.

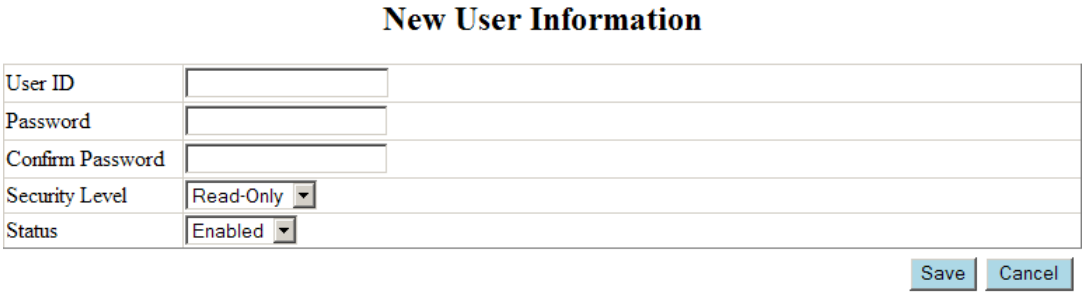


TP387

Note: The Failed Logins field counts the number of unsuccessful login attempts for each user. The count is cleared upon successful login, when a valid login threshold is reached, or if a locked out user account is unlocked.

To Add a New User

To add a new user for the ICIM Web Interface, click the **New User** button below the User Management table. The New User Information form appears as shown below.

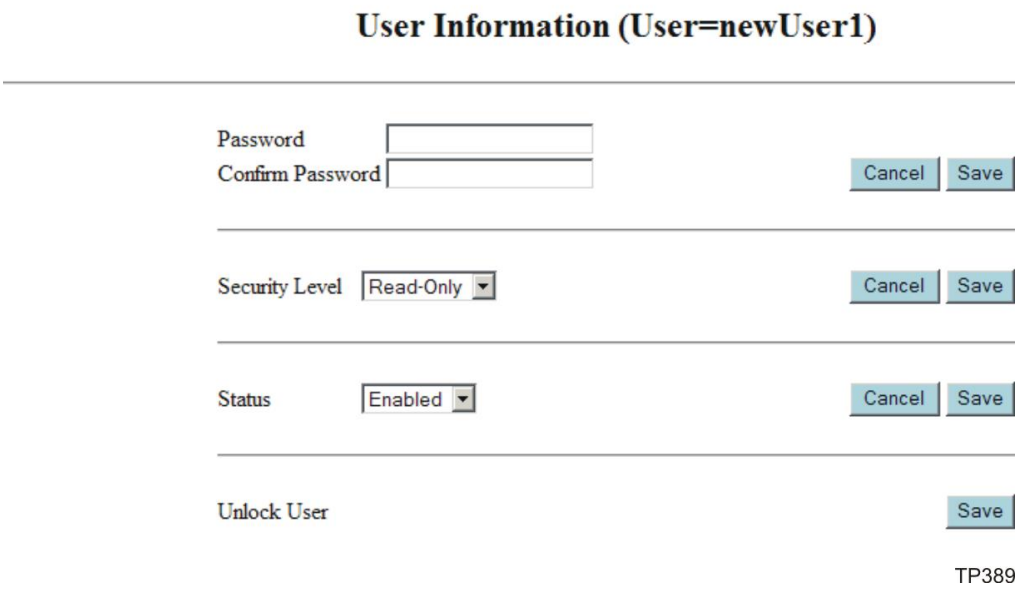


Complete the following steps to fill in the New User Information form.

1. Click inside the **User ID** field and enter the user ID number for the user.
2. Click inside the **Password** field and enter a password for the new user.
   Note: User ID and Password security protocols are enforced.
3. Click the **Security Level** drop-down arrow and choose the correct security level for the new user (Read-Only, Read-Write, Admin).
4. Click the **Status** drop-down arrow and choose one of the following:
   - Enabled, to make this user record active immediately.
   - Disabled, to delay activation to a later time, such as the user start date.
5. Click **Save** to add the new user record to the database, or click **Cancel** to abort the operation and close the User Information form.

To Edit an Existing User

To update information for an existing user, click the **Edit** button to the right of the user listing in the User Management table. The User Information form appears as shown below.



Complete the following steps to update the user information.

1. If necessary, change the password for the user as follows:
   a. Click inside the **Password** field and type the new password.
   b. Click inside the **Confirm Password** field and type the password again.
   c. Click the **Save** button to the right of the Confirm Password to field to save the change, or click **Cancel** to abort.

2 If necessary, change the security level for the user as follows:
   a Open the **Security Level** drop-down menu and select the appropriate menu option (Read-Only, Read-Write, Admin).
   b Click the **Save** button to the right of the Security Level field to save the change, or click **Cancel** to abort.
3 If necessary, change the status for the user as follows:
   a Open the **Status** drop-down menu and select one of the following menu options:
      – Enabled, to make the user record active immediately. If the user account is locked, enabling it also unlocks the account.
      – Disabled, to delay activation to a later time, such as the user start date.
   b Click the **Save** button to the right of the Security Level field to save the change, or click **Cancel** to abort.
4 If necessary, click the **Save** button to unlock the user account and enable the user to log in to the ICIM2.

To Review Current Users

The Currently Logged In table, located below the User Management table at the bottom of the page, appears as shown in the following example.

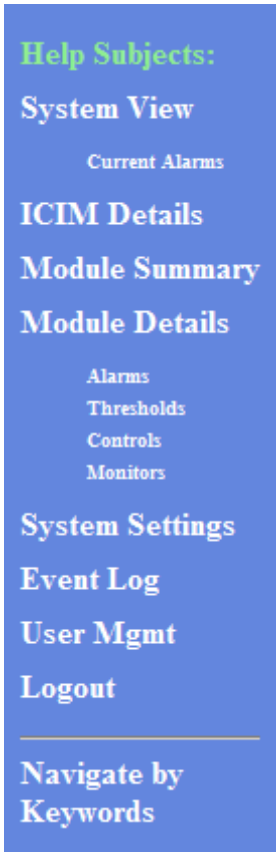
Currently Logged In

User ID	Session Type	Source IP	Login Date / Time
Administrat0r	WEB	172.18.10.23	11/15/06 16:56:11

This table provides a list of all users currently logged into the ICIM2. It identifies the User ID and source IP address, and indicates whether the method of access is the CLI or the ICIM Web Interface (WEB). Finally, the table lists the login date and time for each current user.

Web Interface Help

The Web Interface Help page provides general help on the pages available from the web server built into the ICIM2.



The left side of the page contains a navigation pane similar to that found on other pages of the ICIM Web Interface. However, there are two important differences:

- Rather than jump to a page in the ICIM Web Interface, the links in the Help navigation pane jump to the help section for that page.
- The Help navigation pane includes a Navigate by Keywords link that jumps to a list of keywords at the bottom of the Help page. Each keyword in this list is a link that jumps to the Help section in which the keyword is referenced. Use keyword links if you have trouble finding the page to use for certain operations.

To Access Help

To open the Help page, click the **Help Window** link in the ICIM Web Interface navigation pane. The Help page opens in a separate window to facilitate using help while using the other pages at the same time.

All Help sections are on a single page, so you can access a particular section either by using the navigation pane to jump to the section or simply by scrolling down the page.

Help Menu

Clicking the Help option opens a menu of Help subjects. This menu works like the navigation pane on all other pages, except that the links navigate not to the indicated page but to the specific Help section for that page.

Note:

- Users restricted from using a particular page of the ICIM Web Interface may also be restricted from accessing its corresponding Help section.
- Some pages are only available to users with sufficiently high permissions. In these cases, the corresponding Help sections may also be restricted.

To Use Navigate by Keywords

The keyword search feature navigates to the Help page on which the selected keyword is referenced.

Complete the following steps to use Keyword search.

1. Click the **Keyword** link in the Help menu to navigate to the list of keywords at the bottom of the Help page.

   Alternatively, you can use the browser's Find function, usually **Ctrl-F**, to search for the keyword.
2. Locate the keyword that best describes the functional area of interest, and then click the keyword to navigate to the related Help information.

8

Customer Information

If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

Access your company's extranet site to view or order additional technical publications. For accessing instructions, contact the representative who handles your account. Check your extranet site often as the information is updated frequently.

A

Prisma II Permitted CLI Commands

Introduction

The following tables summarize the available CLI commands for the Prisma II Enhanced Management System Platform. Each table lists the commands available for one of the four major CLI prompts: CLI, */* MODULE, TERMINAL, and ICIM.

Entries shown in parenthesis () are module-specific and must be typed in full. Hints are given to display available entries for those cases. All other entries may be abbreviated to the shortest unambiguous form, as explained in the CLI online help screens.

For further information and assistance when working with CLI, type **help** at the appropriate CLI prompt, and then press **Enter** to display the corresponding help screens.

In This Appendix

From CLI

ALARM	
CLEAR	
DATE	
EXIT	
HELP	ALARM
	CLEAR
	COMMANDS
	DATE
	EDIT
	EXIT
	ICIM
	LOGOUT
	MANUAL
	MODULE
	TERMINAL
	WHO
	WHOAMI
ICIM	
LOGOUT	
MANUAL	
MODULE	
TERMINAL	
WHO	
WHOAMI	
'?'	

From ICIM

ALARM		
EVENTLOGCLEAR		
EVENTLOGFILTER	HARDWARE	ON/OFF
	PROVISIONING	ON/OFF
	SYSTEM	ON/OFF
EXIT		
FILE	IP	(IP_ADDRESS)
	NAME	(FILENAME)
	PASSWORD	(PASSWORD)
	PATH	(PATH)
	USER	(USERNAME)
HELP		
IKE	ADD	(IP_ADDRESS)
	DELETE	(IP_ADDRESS)
INFO	ACTIVEREV	
	ATTNSTATUS	
	BOOTREV	
	CHASSIS	
	CLEI	
	CLLI	
	COMMREAD	
	COMMTRAP	
	COMMWRITE	
	DEVTYPE	
	DOWNLDCMD	
	DOWNLDDIR	
	DOWNLDFILE	
	DOWNLDRESULT	
	DOWNLDSEM	
	DOWNLDSIG	
	DOWNLDSTATE	

	DOWNLDTGT	
	DOWNLDUSER	
	FTPSERVER	
	FTPUSER	
	GATEWAY	
	HEARTBEAT	
	HWREV	
	INACTIVEREV	
	IP	
	IPSEC	
	KEYPADEDITING	
	LOCKOUT	
	MAC	
	MANDATA	
	NEXTIMAGE	
	PREVIOUSIP	
	SELFTEST	
	SERIAL	
	SIZE	
	SLOT	
	SMC	
	STATUSMSG	
	SUBNET	
	SWDATE	
	SWREV	
	THRESHOLD	
	TIMEOUT	
	TOS	
	TZONE	
	UPDATEID	
IPROUTE	ADD	(DESTINATION)
		(GATEWAY)
	DELETE	(DESTINATION)

		(GATEWAY)
IPSEC	DISABLE	
	ENABLE	
LOGOUT		
MANUAL		
REBOOT		
SET	CLLI	(CLLI)
	CLOCK	(DATE_TIME)
	COMMREAD	(READ_STRING)
	COMMTRAP	(TRAP_STRING)
	COMMWRITE	(WRITE_STRING)
	GATEWAY	(GATEWAY)
	HEARTBEAT	(HEARTBEAT)
	IP	(IP_ADDRESS)
	KEYPADEDITING	
	LOCKOUT	(INTERVAL)
	STATUSMSG-CLEARKEY	(1)
	SUBNET	(SUBNET_MASK)
	THRESHOLD	(THRESHOLD)
	TIMEOUT	(TIMEOUT)
	TZONE	(TIMEZONE)
	UPDATEID	(1)
SHOW	ACTIVEREV	
	ATTNSTATUS	
	BOOTREV	
	CHASSIS	
	CLEI	
	CLLI	
	CLOCK	
	COMMREAD	
	COMMTRAP	
	COMMWRITE	
	DEVTYPE	

	DOMAIN	
	DOWNLDCMD	
	DOWNLDDIR	
	DOWNLDFILE	
	DOWNLDRESULT	
	DOWNLDSEM	
	DOWNLDSIG	
	DOWNLDSTATE	
	DOWNLDTGT	
	DOWNLDUSER	
	EVENTLOG	
	EVENTLOGALL	
	EVENTLOGFILTER	
	FILE	
	FTPSERVER	
	FTPUSER	
	GATEWAY	
	HEARTBEAT	
	HWREV	
	IKE	
	INACTIVEREV	
	IP	
	IPROUTE	
	IPSEC	
	KEYPADEDITING	
	LOCKOUT	
	LOCKEDUSERS	
	MAC	
	MANDATA	
	NEXTIMAGE	
	PREVIOUSIP	
	PROVISIONING	
	SELFTEST	

	SERIAL			
	SIZE			
	SLOT			
	SMC			
	SNTP			
	STATUSMSG			
	SUBNET			
	SWDATE			
	SWREV			
	THRESHOLD			
	TIMEOUT			
	TOS			
	TRAPS			
	TZONE			
	UPDATEID			
	USER			
SNTP	INTERVAL			
	IP			
	MODE			
	STATE			
	TIMEOUT			
TRAPS	DISABLE	(INDEX)		
		(IP_ADDRESS)		
	ENABLE	(INDEX)		
		(IP_ADDRESS)		
USER	ADD	(USER_ID)	ADMIN	DISABLE
				ENABLE
			READ	DISABLE
				ENABLE
			READWRITE	DISABLE
				ENABLE
	CHANGE	ACCESS_RIGHTS	(USER_ID)	ADMIN
				READ

				READWRITE
		ACCOUNT_STATUS	(USER_ID)	DISABLE
				ENABLE
		PASSWORD	(USER_ID)	(PASSWORD)
	DELETE	(USER_ID)		
	UNLOCK	(USER_ID)		
'?'				

From */* MODULE

ALARM	DOMAIN		
	MODULE		
CHASSIS	(digits)		
	*		
	[range]		
EXIT			
HELP			
INFO	ALARM	(ALARMNAME)	HYSTERESIS
		use show alarms *	INDEX
			LABEL
			LIMITADJUST
			MAJORHIGH
			MAJORLOW
			MINORHIGH
			MINORLOW
			NOMINAL
			RANGEHI
			RANGELO
			TYPE
			VALUE
	CONTROL	(CONTROLNAME)	INDEX
		use show control *	LABEL
			RANGEHI
			RANGELO
			RANGESTEP
			STATENAMES
			TYPE
			UNITS
			VALUE
	MODULE	ACTIVEREV	
		BOOTREV	

		CLEI	
		CLLI	
		CODEREV	
		DATECODE	
		DEVTYPE	
		DOWNLOADABLE	
		INACTIVEREV	
		MANDATA	
		MODTYPE	
		NAME	
		NEXTIMAGE	
		NUMANALOGCONTROLS	
		NUMCONTROLS	
		NUMDIGITALCONTROLS	
		NUMMONITS	
		NUMOFALARMS	
		SCRIPTREV	
		SELFTEST	
		SERIAL	
		TOS	
	MONITOR	(MONITORNAME)	INDEX
		use show mon *	LABEL
			STATENAMES
			TYPE
			UNITS
			VALUE
LOGOUT			
MANUAL			
MODID	digits		
	*		
	[range]		
RESET			
SET	ALARMPARAM	(ALARMNAME)	HYSTERESIS

			MAJORHIGH
			MAJORLOW
			MINORHIGH
			MINORLOW
	CONTROL	(CONTROLNAME)	(VALUE)
	MODULE	CLLI	(CLLI)
SHOW	ALARMPARAM	(ALARMNAME)	HYSTERESIS
		use show alarms *	MAJORHIGH
			MAJORLOW
			MINORHIGH
			MINORLOW
	ALARMSTATE	(ALARMNAME)	
	CONTROL	(CONTROLNAME)	
	MODULE		
	MONITOR	(MONITORNAME)	
SLOT	digits		
	*		
	[range]		
'?'			

From TERMINAL

ALARM	
COLSEP	(string)
EXIT	
HEADERS	(digits)
HELP	
LOGOUT	
MANUAL	
PAGING	(digits)
PATTERN	REGEX
	WILDCARD
SHOW	
'?'	

B

Features Available via Remote User Interface

Introduction

This appendix lists the features of the remote user interface and identifies the availability (CLI, Web Interface, or both) and required user access level (Read-Only, Read-Write, or Admin) for each feature.

In This Appendix

Overview

The tables below list the features available via either the CLI or the Web Interface.

Symbols appearing in the cells of these tables have the meanings described below.

- In the CLI or Web column:
  - An asterisk (*) indicates that the corresponding interface (CLI or Web) supports this feature.
  - A dash (-) indicates that the corresponding interface (CLI or Web) does not support this feature.
- In the Read-Only User, Read-Write User, or Admin User security column:
  - A dash (-) indicates that this feature is not available to the corresponding access level.
  - The letter R indicates that the corresponding access level has Read-Only access to this feature.
  - The letter RW indicates that the corresponding access level has Read-Write access to this feature.

Note: The hierarchy of access goes from Read-Only to Read-Write to Admin. So, if a Read-Only user has the privilege to view a particular data element, a Read-Write user would be able to view the same data element. Similarly, if a Read-Write user is able to view or edit a data element, an Admin level user would be able to do the same.

ICIM Data

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
IP address	* [1]	*	R	R	RW
Active rev	*	*	R	R	R
Attnstatus	*	-	R	R	R
Boot rev	*	-	R	R	R
Chassis	*	*	R	R	R
CLEI [2]	*	*	R	R	R
CLLI [2]	*	*	R	RW	RW
Clock	* [1]	*	R	R	RW
Commread	*	-	-	-	RW
Commwrite	*	-	-	-	RW
Commtrap	*	-	-	-	RW
DevType	*	-	R	R	R
Domain	*	*	R	R	R
Downldcmd	*	-	R	R	R
Downlddir	*	-	R	R	R
Downldfile	*	-	R	R	R
Downldresult	*	-	R	R	R
Downldsem	*	-	R	R	R
Downldsig	*	-	R	R	R
Downldstate	*	*	R	R	R
Downldtgt	*	-	R	R	R
Downlduser	*	-	R	R	R
Eventlog	*	-	-	-	R
Eventlogall	*	*	-	-	R
File	*	-	-	R	RW
Ftpserver	*	-	R	R	R
Ftpuser	*	-	-	-	R
Gateway	* [1]	*	R	R	RW

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Heartbeat [4]	*	*	R	R	RW
Hwrev	*	*	R	R	R
Inactiverev	*	*	R	R	R
IKE	*	-	-	-	RW
IProute	*	-	R	R	RW
IPsec	*	-	R	R	RW
KeypadEditing	*	-	-	-	RW
LockedUsers	*	*	-	-	R
LockoutInterval	*	*	R	R	RW
MAC	*	*	R	R	R
Mandata	*	*	R	R	R
Nextimage	*	-	R	R	R
Previousip	*	-	R	R	R
Provisioning	*	-	R	R	R
Reboot	*	-	-	-	W
Selftest	*	*	R	R	R
Serial	*	*	R	R	R
Size	*	*	R	R	R
Slot	*	*	R	R	R
Smc	*	*	R	R	R
SNTPInterval [2]	*	-	-	-	RW
SNTPIPAddress [2]	*	-	-	-	RW
SNTPLastUpdate [2]	*	-	-	-	R
SNTPMode [2]	*	-	-	-	RW
SNTPState [2]	*	-	-	-	RW
SNTPTimeout [2]	*	-	-	-	RW
Statusmsg	*	-	R	R	R
Statusmsgclearkey	*	-	-	-	W
Subnet	* [1]	*	R	R	RW
Swdate	*	-	R	R	R

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Swrev	*	-	R	R	R
sysDescr	-	*	R	R	R
sysLocation	-	*	R	R	R
sysUptime	-	*	R	R	R
Threshold	* [3]	*	R	R	RW
Timeout	* [3]	*	R	R	RW
TOS	*	*	R	R	R
Traps	* [3]	*	R	R	RW
Timezone	* [1]	*	R	R	RW
Updateid	*	-	R	R	RW
User	*	*	-	-	RW

[1] May be modified through the CLI but not through the Web Interface.

[2] Reserved for future use.

[3] May be read through the CLI but not through the Web Interface.

[4] RW for admin using CLI only, R for all web interface users.

Module Data

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Active rev	*	*	R	R	R
Boot rev	*	-	R	R	R
Chassis	*	*	R	R	R
CLEI	*	*	R	R	R
CLLI	*	*	R	RW	RW
Device Type	*	*	R	R	R
Downloadable	*	*	R	R	R
Inactive Rev	*	*	R	R	R
Module Name	*	*	R	R	R
Module Type	*	*	R	R	R
Reset	*	-	-	-	W
Selftest	*	*	R	R	R
Serial	*	*	R	R	R
Slot	*	*	R	R	R
Time of Service	*	*	R	R	R

Current Alarms

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Current Alarms	*	*	R	R	R

Module Alarms

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Hysteresis	*	*	R	RW	RW
Label	*	*	R	R	R
MajorHigh	*	*	R	RW	RW
MajorLow	*	*	R	RW	RW
MinorHigh	*	*	R	RW	RW
MinorLow	*	*	R	RW	RW
RangeHigh	*	*	R	R	R
RangeLow	*	*	R	R	R
Type	*	*	R	R	R
Value	*	*	R	R	R

Module Controls

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
High	*	*	R	R	R
Label	*	*	R	R	R
Low	*	*	R	R	R
Step	*	*	R	R	R
Units	*	*	R	R	R
Value	*	*	R	RW	RW

Module Monitors

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Label	*	*	R	R	R
Units	*	*	R	R	R
Value	*	*	R	R	R

System Information

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Event Log Filter	* [4]	*	R	R	RW
Event Log Clear	*	*	-	-	R/Clear
Max Login Attempts	* [4]	*	R	R	RW
Inactivity Timeout	* [4]	*	R	R	RW
Lockout Interval	*	*	R	R	RW
Trap Receive Table	* [4]	*	R	R	RW

[4] May be read through the CLI but not through the ICIM Web Interface.

User Management

Feature	CLI	Web	Read-Only User Privilege	Read-Write User Privilege	Admin User Privilege
Add user	*	*	-	-	RW
Change user	*	*	-	-	RW
Current users	*	*	-	-	R
Delete user	*	*	-	-	RW
Unlock user	*	- [1]	-	-	RW

[1] A user account may be unlocked through the ICIM Web Interface by enabling the account.

C

Module Parameter Descriptions

Introduction

This appendix provides tables of manufacturing data, monitored parameters, configurable parameters, and alarms for each Prisma II application module. The values in the tables vary from module to module. The examples shown are for guidance only.

CAUTION:

The warranty may be voided and the equipment damaged if you operate the equipment above the specified temperature limits (131°F/55°C for post-amplifiers, 149°F/65°C for other products). Specification temperature limits are measured in the air stream at the fan tray inlet and may be higher than room ambient temperature.

CAUTION:

Do not operate post-amplifiers at air inlet temperature above 30°C for extended periods or repetitively. Extended or repetitive operation above 30°C will reduce amplifier useful life and increase amplifier failure rate.

In This Appendix

Split and Non-Split Mode for Power Supply and Fan Tray

This section explains the difference between Split and Non-Split mode reporting of Prisma II EMS power supply and fan tray module parameters.

Overview

All Prisma II EMS system releases associate fan tray and power supply parameters with chassis slot numbers. In System Release 1.00, all fan tray and power supply parameters are associated with the slot number of the installed power supply module or modules. Consequently, if Power Supply 1 and Power Supply 3 are both installed, any alarm condition affecting the fan tray or either power supply module is reported twice: once for chassis slot 1, and again for chassis slot 3.

To prevent duplicate alarms with both power supplies installed, this method of reporting module parameters was changed beginning with System Release 1.01. The fan tray, which previously had no physical chassis slot number assigned, was defined as occupying chassis slot 0. This change allowed each fan tray or power supply parameter to be associated with one and only one chassis slot number. As a result, a System Release 1.01 or later chassis associates fan tray parameters with chassis slot 0, power supply 1 parameters with chassis slot 1, and power supply 3 parameters with chassis slot 3.

The association of each fan tray and power supply parameter with only one chassis slot number in System Release 1.01 is termed Split mode. Split mode is achieved only when both the controlling ICIM2 and the fan tray in a chassis have System Release 1.01 or later firmware. If either the controlling ICIM2 or the fan tray has System Release 1.00 firmware, the chassis reports fan tray and power supply parameters according to System Release 1.00 behavior, now termed Non-Split mode. This scheme maintains backward compatibility for any chassis in which the fan tray and controlling ICIM2 have different System Release firmware.

The following table summarizes the mode of reporting for each possible combination of ICIM2 and fan tray firmware.

Fan Tray Firmware	ICIM2 Rel 1.00	ICIM2 Rel 1.01 or later
System Release 1.00	Non-Split	Non-Split
System Release 1.01 or later	Non-Split	Split

Note:

- The difference between the Non-Split behavior of Release 1.00 and the Split behavior of later system releases is apparent in all product interfaces: the ICIM2 front panel, the CLI, and SNMP management information bases (MIBs) and traps.

- All changes made in System Release 1.01 to support Split mode fan tray and power supply parameters persist in System Release 2.00 and later.

Alarm Parameters

Alarm parameters are individual alarms that indicate the status of a single function or condition of a module.

The table below lists the alarm parameters for Prisma II Enhanced Management System fan tray and power supply modules and identifies their corresponding functions.

Parameter	**Function**	**Associated Slot Non-Split Mode (Release 1.00)**	**Associated Slot Split Mode (Release 1.01 and later)**
FansOk	Fan operating status	1 and 3 *	0
ChasTemp	Fan tray internal temperature	1 and 3 *	0
Ps1PwrIn	Slot 1 power supply input power	1 and 3 *	1
Ps1+24	Slot 1 power supply +24 VDC output	1 and 3 *	1
Ps1+5VDC	Slot 1 power supply +5 VDC output	1 and 3 *	1
Ps1-5VDC	Slot 1 power supply -5 VDC output	1 and 3 *	1
Ps3PwrIn	Slot 3 power supply input power	1 and 3 *	3
Ps3+24	Slot 3 power supply +24 VDC output	1 and 3 *	3
Ps3+5VDC	Slot 3 power supply +5 VDC output	1 and 3 *	3
Ps3-5VDC	Slot 3 power supply -5 VDC output	1 and 3 *	3

* With both power supplies installed. With only one power supply installed, alarms are only associated with corresponding power supply slot.

Monitor Parameters

Monitor parameters are individual parameters that indicate the status of a single function or condition of a module.

The table below lists the monitor parameters for Prisma II Enhanced Management System fan tray and power supply modules and identifies their corresponding functions.

Parameter	Function	Associated Slot Non-Split Mode (Release 1.00)	Associated Slot Split Mode (Release 1.01 and later)
FansOn	Fan operating status	1 and 3 *	0
ChasTemp	Fan tray internal temperature	1 and 3 *	0
Chas+24V	Chassis +24V rail	1 and 3 *	0
Chas+5V	Chassis +5V rail	1 and 3 *	0
Chas-5V	Chassis -5V rail	1 and 3 *	0
Ps1Inst	Slot 1 power supply installed status	1 and 3 *	0
Ps1Temp	Slot 1 power supply internal temperature	1 and 3 *	1
Ps1+24V	Slot 1 power supply +24 VDC output	1 and 3 *	1
Ps1+5V	Slot 1 power supply +5 VDC output	1 and 3 *	1
Ps1-5V	Slot 1 power supply -5 VDC output	1 and 3 *	1
Ps3Inst	Slot 3 power supply installed status	1 and 3 *	0
Ps3Temp	Slot 3 power supply internal temperature	1 and 3 *	3
Ps3+24V	Slot 3 power supply +24 VDC output	1 and 3 *	3
Ps3+5V	Slot 3 power supply +5 VDC output	1 and 3 *	3
Ps3-5V	Slot 3 power supply -5 VDC output	1 and 3 *	3

* With both power supplies installed. With only one power supply installed, alarms are only associated with corresponding power supply slot.

Control Parameters

Prisma II Enhanced Management System fan tray and power supply modules have no control parameters.

Power Supply and Fan Tray Parameters (Non-Split)

Power Supply/Fan Tray Alarm Data Parameters

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
FansOk	Fan status	na	na	na	na	na	OK or Fault
ChasTemp	Fan tray temp	-40	-35	60	65	1	-40°C to 65°C
Ps1PwrIn	Slot 1 input power	na	na	na	na	na	OK or Fault
Ps1+24	Slot 1 +24 voltage	18.0	18.4	25.9	26.1	0.1	23.8 to 25.6 VDC
Ps1+5VDC	Slot 1 +5 voltage	3.6	3.7	5.9	6.1	0.1	4.9 to 5.3 VDC
Ps1-5VDC	Slot 1 -5 voltage	-5.6	-5.5	-4.6	-4.5	0.1	-5.3 to -4.9 VDC
Ps3PwrIn	Slot 3 input power	na	na	na	na	na	OK or Fault
Ps3+24	Slot 3 +24 voltage	18.0	18.4	25.9	26.1	0.1	23.8 to 25.6 VDC
Ps3+5VDC	Slot 3 +5 voltage	3.6	3.7	5.9	6.1	0.1	4.9 to 5.3 VDC
Ps3-5VDC	Slot 3 -5 voltage	-5.6	-5.5	-4.6	-4.5	0.1	-5.3 to -4.9 VDC

Power Supply/Fan Tray Control Parameters

Control	Function	Value	Default
None		No config variables	

Power Supply/Fan Tray Manufacturing Data Parameter Examples

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	Power Supply 1 / Fan Tray OR Power Supply 3 / Fan Tray	
Module Type	5010	
Serial # [1]	AALR1RL	X
Date Code [1]	J04	X
Sw Ver [1]	1.00.03	
In Service Hours [1]	0 (initial value)	X
Spec Data (MANDATA) [1]	(blank)	X
CLEI Code	VLPQ02LEAA	X
CLLI Code	(blank)	

Note: [1] These values may vary from module to module. The values shown above are examples only.

Power Supply/Fan Tray Monitor Parameter Examples

Parameter	Function	Initial Value	Operating Value (typ)
Ps1Inst	1 if slot 1 PS installed, 0 if not	1 (Inst)	1 (Inst)
Ps1+24V	Measured +24 VDC of slot 1	24.97V	24.97V
Ps1+5V	Measured +5 VDC of slot 1	5.38V	5.38V
Ps1-5V	Measured -5 VDC of slot 1	-5.42V	-5.42V
Ps1Temp	Internal slot 1 PS temperature	32.7°C	32.7°C
Ps3Inst	1 if slot 3 PS installed, 0 if not	1 (Inst)	1 (Inst)
Ps3+24V	Measured +24 VDC of slot 3	25.03V	25.03V
Ps3+5V	Measured +5 VDC of slot 3	5.38V	5.38V
Ps3-5V	Measured -5 VDC of slot 3	-5.43V	-5.43V
Ps3Temp	Internal slot 3 PS temperature	28.7°C	28.7°C
Chas+24V	Chassis +24 V rail	24.14V	24.14V
Chas+5V	Chassis +5 V rail	5.08V	5.08V

Parameter	Function	Initial Value	Operating Value (typ)
Chas-5V	Chassis -5 V rail	-5.05V	-5.05V
ChasTemp	Fan tray internal temperature	36.02°C	36.02°C
FansOn	1 if fans are running, 0 if shut off	1 (ON)	1 (ON)

Note: All monitored values may vary from module to module. The values shown above are examples only.

Fan Tray Parameters (Split)

Fan Tray Alarm Data Parameters

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
FansOk	Fan status	na	na	na	na	na	OK or Fault
ChasTemp	Fan tray temperature	-40	-35	60	65	1	-40°C to 65°C

Fan Tray Control Parameters

Control	Function	Value	Default
None		No config variables	

Fan Tray Manufacturing Data Parameter Examples

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	Fan Tray	
Module Type	5012	
Serial # [1]	AALR1RL	X
Date Code [1]	J04	X
Sw Ver [1]	01.01.08	
In Service Hours [1]	0 (initial value)	X
Spec Data (MANDATA) [1]	(blank)	X
CLEI Code [1] [2]	VLPQ02LEAB	X
CLLI Code [1] [2]	(blank)	

Note:

- [1] These values may vary from module to module. The values shown above are examples only.
- [2] These values are not visible from the ICIM2 front panel.

Fan Tray Monitor Parameter Examples

Parameter	Function	Initial Value	Operating Value (typ)
Ps1Inst	1 if slot 1 PS installed, 0 if not	1 (Inst)	1 (Inst)
Ps3Inst	1 if slot 3 PS installed, 0 if not	1 (Inst)	1 (Inst)
Chas+24V	chassis +24 V rail	24.14V	24.14V
Chas+5V	chassis +5 V rail	5.08V	5.08V
Chas-5V	chassis -5 V rail	-5.05V	-5.05V
ChasTemp	fan tray internal temperature	36.02°C	36.02°C
FansOn	1 if fans are running, 0 if they are shut off	1 (ON)	1 (ON)

Note: All monitored values may vary from module to module. The values shown above are examples only.

Power Supply 1 Parameters (Split)

Power Supply 1 Alarm Data Parameters

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
Ps1PwrIn	Slot 1 input power	na	na	na	na	na	OK or Fault
Ps1+24	Slot 1 +24 voltage	18.0	18.4	25.9	26.1	0.1	23.8 to 25.6 VDC
Ps1+5VDC	Slot 1 +5 voltage	3.6	3.7	5.9	6.1	0.1	4.9 to 5.3 VDC
Ps1-5VDC	Slot 1 -5 voltage	-5.6	-5.5	-4.6	-4.5	0.1	-5.3 to -4.9 VDC

Power Supply 1 Control Parameters

Control	Function	Value	Default
None		No config variables	

Power Supply 1 Manufacturing Data Parameter Examples

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	Power Supply 1	
Module Type	5013	
Serial #	na	
Date Code	na	
Sw Ver	na	
In Service Hours	na	
Spec Data (MANDATA)	(blank)	
CLEI Code [1]	na	
CLLI Code [1]	na	

Note: [1] These values are not visible from the ICIM2 front panel.

Power Supply 1 Monitor Parameter Examples

Parameter	Function	Initial Value	Operating Value (typ)
Ps1+24V	measured +24 VDC of slot 1	24.97V	24.97V
Ps1+5V	measured +5 VDC of slot 1	5.38V	5.38V
Ps1-5V	measured -5 VDC of slot 1	-5.42V	-5.42V
Ps1Temp	internal slot 1 PS temperature	32.7°C	32.7°C

Note: All monitored values may vary from module to module. The values shown above are examples only.

Power Supply 3 Parameters (Split)

Power Supply 3 Alarm Data Parameters

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
Ps3PwrIn	Slot 3 input power	na	na	na	na	na	OK or Fault
Ps3+24	Slot 3 +24 voltage	18.0	18.4	25.9	26.1	0.1	23.8 to 25.6 VDC
Ps3+5VDC	Slot 3 +5 voltage	3.6	3.7	5.9	6.1	0.1	4.9 to 5.3 VDC
Ps3-5VDC	Slot 3 -5 voltage	-5.6	-5.5	-4.6	-4.5	0.1	-5.3 to -4.9 VDC

Power Supply 3 Control Parameters

Control	Function	Value	Default
None		No config variables	

Power Supply 3 Manufacturing Data Parameter Examples

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	Power Supply 3	
Module Type	5013	
Serial #	na	
Date Code	na	
Sw Ver	na	
In Service Hours	na	
Spec Data (MANDATA)	(blank)	
CLEI Code [1]	na	
CLLI Code [1]	na	

Note: [1] These values are not visible from the ICIM2 front panel.

Power Supply 3 Monitor Parameter Examples

Parameter	Function	Initial Value	Operating Value (typ)
Ps3+24V	measured +24 VDC of slot 3	25.03V	25.03V
Ps3+5V	measured +5 VDC of slot 3	5.38V	5.38V
Ps3-5V	measured -5 VDC of slot 3	-5.43V	-5.43V
Ps3Temp	internal slot 3 PS temperature	28.7°C	28.7°C

Note: All monitored values may vary from module to module. The values shown above are examples only.

Pre-Amplifier FTTP Parameters

Pre-Amplifier Nominal Alarm Values

The table below lists the OutPwr nominal alarm values for this module. Nominal alarm values cannot be changed by the user.

Model	Nominal Alarm Value	Attenuator Setting
Prisma II Pre-Amplifier FTTP (1 x 19 dBm)	19.0 dBm	0
Prisma II Pre-Amplifier FTTP (2 x 17 dBm)	17.0 dBm	0
Prisma II Pre-Amplifier FTTP (2 x 19 dBm)	19.0 dBm	0
Prisma II Pre-Amplifier FTTP (1 x 21.5 dBm)	21.5 dBm	0

Note:

- If the attenuator is set to any value other than 0, the nominal alarm value is equal to the nominal alarm value in the table minus the attenuator setting.
- The LasTemp nominal alarm value is always 25°C.
- The LasBias nominal alarm value is always equal to the LasLim value.
- The InPwr nominal alarm value is always equal to +5 dBm.

Pre-Amplifier User Alarm Data Parameters

User alarms have thresholds that can be set by the user. The default user alarm data for this module is shown below.

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
InPwr	Optical input power [1]	-16	-5	25	45	1.0	5.0 dBm
OutPwr	Optical output power [1]	-1	-0.7	0.7	1.0	0.1	19.0 dBm [2]
LasBias	Laser bias current [1]	-2.0	-1.0	-0.01	-0.001	0.001	0.718 A [3]

Note:

- [1] This alarm threshold value is relative to the nominal alarm value.
- [2] This value depends on the pre-amplifier type. See ***Pre-Amplifier Nominal Alarm Values*** (on page 253) for possible types and values.
- [3] This value is set in manufacturing based on the characteristics of the laser diode, and may vary from module to module.

Pre-Amplifier Module Alarm Data Parameters

Module alarms are set at the factory and may not be adjusted by the user. The module alarm data for this module is shown below.

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
LasTemp (not adjustable)	Laser temperature [1]	-20.0	-15.0	15.0	20.0	1.0	25.0°C
Enable	Module ON or OFF [2]	na	na	na	na	na	OK or Fault [3]
IntPs	Internal power supplies fault [2]	na	na	na	na	na	OK or Fault
PsOk	Bus input voltage [2]	na	na	na	na	na	OK or Fault
Service	Service mode	na	na	na	na	na	OK or Fault [4]

Note:

- [1] This alarm threshold value is relative to the nominal alarm value.
- [2] This alarm sets the unit to the safe state wherein the lasers are turned off, disabling the optical output.
- [3] The factory default is Fault, where the alarm values OK and Fault correspond to control values ON and OFF, respectively. The module must be user-enabled following installation.
- [4] The alarm values OK and Fault correspond to the control values OFF and ON, respectively.

Pre-Amplifier Control Parameters

Control	Function	Possible Values	Default
Enable	Turns optical amplifier ON or OFF	ON (1) OFF (0)	OFF (0)
SetAtten	Optical power attenuation	0 to 3 dB in 1.0 dB steps *	0
Master	When set to slave (0), will only start with an external alarm signal	Master (1) Slave (0)	Master (1)
LoInpEna	Enables (1) or disables (0) optical output power under low optical input power conditions	ON (1) OFF (0)	OFF (0)
Service	Reduces optical output power to +15 dBm for servicing	ON (1) OFF (0)	OFF (0)

* Not for all models.

Pre-Amplifier Manufacturing Data Parameter Examples

2 x 19 dBm Module

Manufacturing Data	Typical Values	Set in Manufacturing (Example value shown)
Module Name	1550 nm Pre-Amp FTTP	
Module Type	3030	
Serial # [1]	AAFHJJT	X
Date Code [1]	K05	X
Sw Ver [1]	1.01.05	
In Service Hours [1]	0 (initial value)	X
Spec Data (MANDATA) [1]	2 x 19.00	X
	1 x 19.00	
	1 x 21.50	
	2 x 17.00	
CLEI Code [1] [2]	VLPIS0RDAA (2 x 19 dBm module)	X
	VLPIS0PDAA (1 x 19 dBm module)	

Manufacturing Data	Typical Values	Set in Manufacturing (Example value shown)
	VLPIS0TDAA (1 x 21.5 dBm module)	
	VLPIS0SDAA (2 x 17 dBm module)	
CLLI Code [1]	(blank)	

Note:

- [1] These values may vary from module to module. The values shown above are examples only.
- [2] These values are not visible from the ICIM2 front panel.

Pre-Amp Monitor Parameter Examples

2 x 19 dBm Module

Parameter	Function	Initial Value (no input)	Operating Value (typ)
InPwr	Optical input power	-50.00 dBm	+5.0 dBm
OutPwr	Optical output power	-50.00 dBm	+19.0 dBm
LasTemp	Laser temperature	25.0°C	25.0°C
LasBias	Laser operating current	0.004 A	0.718 A
LasLim	Laser operating current limit	0.962 A (typ)	0.962 A
TecCur	Thermoelectric cooler current	0.015 A (typ)	0.371 A
ModTemp	Module temperature	26.25°C (typ)	26.8°C
LaserOn	Laser in service hours	0 hrs	(increments)

Note: All monitored values may vary from module to module. The values shown above are examples only.

Post-Amplifier FTTP Parameters

Post-Amplifier Nominal Alarm Values

The table below lists the OutPwrA and OutPwrB nominal alarm values for this module. Nominal alarm values cannot be changed by the user.

Model	Nominal Alarm Value	Attenuator Setting
Prisma II Post-Amplifier FTTP (18 x 18.9 dBm)	18.90 dBm	0
Prisma II Post-Amplifier FTTP (22 x 18.1 dBm)	18.10 dBm	0
Prisma II Post-Amplifier FTTP (24 x 17.65 dBm)	17.65 dBm	0

Note:

- If the attenuator is set to any value other than 0, the nominal alarm value is equal to the nominal alarm value in the table minus the attenuator setting.
- The LasTempA and LasTempB nominal alarm values are always 25°C.
- The LasBiasA nominal alarm value is always equal to the LasLimA value.
- The LasBiasB nominal alarm value is always equal to the LasLimB value.
- The InPwr nominal alarm value is always equal to +19 dBm.

Post-Amplifier User Alarm Data Parameters

User alarms have thresholds that can be set by the user. The default user alarm data for this module is shown below.

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
InPwr	Optical input power [1]	-7	-3	25	45	1	19.0 dBm
OutPwrA	Optical output power A [1]	-1.0	-0.7	0.7	1.0	0.1	17.65 dBm [2]
OutPwrB	Optical output power B [1]	-1.0	-0.7	0.7	1.0	0.1	17.65 dBm [2]
LasBiasA	Laser bias current A [1]	-8.0	-8.0	-0.1	-0.01	0.001	3.7 to 5.0 A [3]

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
LasBiasB	Laser bias current B [1]	-8.0	-8.0	-0.1	-0.01	0.001	3.7 to 5.0 A [3]

Note:

- [1] This alarm threshold value is relative to the nominal alarm value.
- [2] This value depends on the post-amplifier type minus the SetAtten control value. See ***Post-Amplifier Nominal Alarm Values*** (on page 257) for possible types and values.
- [3] This value is set in manufacturing based on the characteristics of the laser diode, and may vary from module to module.

Post-Amplifier Module Alarm Parameters

Module alarms are set at the factory and may not be adjusted by the user. The module alarm data for this module is shown below.

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/ Nom. Value
LasTempA	Laser A temperature [1]	-35.0	-30.0	45.0	50.0	1.0	25.0°C
LasTempB	Laser B temperature [1]	-35.0	-30.0	45.0	50.0	1.0	25.0°C
Enable	Module ON or OFF [2]	na	na	na	na	na	OK or Fault [3]
IntPs	Internal power supplies [2]	na	na	na	na	na	OK or Fault
PsOk	Bus input voltage [2]	na	na	na	na	na	OK or Fault
ServiceA	Service mode A	na	na	na	na	na	OK or Fault [4]
ServiceB	Service mode B	na	na	na	na	na	OK or Fault [4]

Note:

- [1] This alarm threshold value is relative to the nominal alarm value.
- [2] This alarm sets the unit to the safe state, in which the optical input is disabled.
- [3] The factory default is Fault, where the alarm values OK and Fault correspond to the control values ON and OFF, respectively. The module must be user-enabled following installation.
- [4] The alarm values OK and Fault correspond to the control values OFF and ON, respectively.

Post-Amplifier Control Parameters

Control	Function	Possible Values	Default
Enable	Turns optical amplifier ON or OFF	ON (1) OFF (0)	OFF (0)
SetAtten	Optical power attenuation	0 to 3 dB in 0.5 dB steps	0
Master	When set to slave (0), will only start with an external alarm signal	Master (1) Slave (0)	Master (1)
ServiceA	Reduces Output A optical power to +15 dBm for servicing	ON (1) OFF (0)	OFF (0)
ServiceB	Reduces Output B optical power to +15 dBm for servicing	ON (1) OFF (0)	OFF (0)

Post-Amplifier Manufacturing Parameter Examples

24 x 17.65 dBm Module

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	1550 nm Post-Amp FTTP	
Module Type	3031	
Serial # [1]	AAFHJLT	X
Date Code [1]	K05	X
Sw Ver [1]	1.01.04	
In Service Hours [1]	0 (initial value)	X
Spec Data (MANDAGA) [1]	24 x 17.65	X
	22 x 18.10	
	18 x 18.90	
CLEI Code [1] [2]	VLPIR0NDAA (24 x 17.65 dBm module)	X
	VLPIR0MDAA (22 x 18.1 dBm module)	
	VLPIR0LDAA (18 x 18.9 dBm module)	
CLLI Code [1] [2]	(blank)	

Note:

- [1] These values may vary from module to module. The values shown above are examples only.
- [2] These values are not visible from the ICIM2 front panel.

Post-Amplifier Monitor Parameter Examples

24 x 17.65 dBm Module

Parameter	Function	Initial Value (no input)	Operating Value (typ)
InPwr	Optical input power	-50.00 dBm	+19.0 dBm
OutPwrA	Optical output power A	-50.00 dBm	+17.65 dBm
OutPwrB	Optical output power B	-50.00 dBm	+17.65 dBm
LasTempA	Laser temperature A	24°C	27°C
LasTempB	Laser temperature B	24°C	27°C
LasBiasA	Laser operating current A	0.0 A	3.8 A
LasBiasB	Laser operating current B	0.0 A	3.7 A
LasLimA	Laser operating current limit A	6.3 A	6.3 A
LasLimB	Laser operating current limit B	6.3 A	6.3 A
ModTemp	Module temperature	27°C	30°C
LaserOn	Laser in service hours	0 hrs	(increments)

Note: All monitored values may vary from module to module. The values shown above are examples only.

Optical Transmitter FTTP Parameters

Optical Transmitter Alarm Data Parameters

Alarm	Function	Major Low Threshold	Minor Low Threshold	Minor High Threshold	Major High Threshold	Hys-teresis	Typical Range/Nom. Value
InRF	RF input power level [1]	-2	-1	1	3	0.1	0.0 dBm
OutPwr	Optical output power [1]	-1.5	-1.1	1.1	1.5	0.1	8.0 dBm
CPLock	Constant power loop locked [2]	-10	-5	5	10	1	0%
ModTemp	Module temperature [2]	-36	-21	78	85	0	-40 to 85°C
LasTemp	Laser temperature [1]	-10	-1	1	10	0	25.0°C
LasBias	Laser bias current [1]	-100	-50	50	100	1	218 mA [3]
Psbs2G	2 GHz SBS power level [1]	-5	-3	3	5	0.1	4.0 dB
PLLOCK	2 GHz SBS power level locked [4]	na	na	na	na	na	OK or Fault
PsOk	Power supply input voltage [4]	na	na	na	na	na	OK or Fault
TxEnable	Laser on/off [4]	na	na	na	na	na	OK or Fault [5]
CWModSta	Continuous wave mode	na	na	na	na	na	OK or Fault [6]

Note:

- [1] This alarm threshold value is relative to the nominal alarm value.
- [2] This alarm threshold value is absolute to the nominal alarm value.
- [3] This value is set in manufacturing based on the characteristics of the laser diode, and may vary from module to module.
- [4] This alarm sets the unit to the safe state, in which the lasers are turned off to disable optical output.
- [5] The alarm values OK and Fault correspond to the control values ON and OFF, respectively.
- [6] The alarm values OK and Fault correspond to the control values OFF and ON, respectively.

Optical Transmitter Control Parameters

Control	Function	Value	Default
Enable	Enables or disables the laser	ON (1) OFF (0)	ON (1)
LenMode	Fine tunes for link length: ON (1) for Super Trunk Links OFF (0) for Edge Modulation Links	ON (1) OFF (0)	OFF (0)
OMISet	Sets the OMI level (only when AGC is ON)	-6.0 dB to +1.0 dB in 0.5 dB steps	0
CWMode	CWMode ON offsets the InRF monitor 2 dB lower to indicate the actual mod level	ON (1) OFF (0)	OFF (0)
Mute	Output muting during a muting event. Output is subject to muting when ON. When OFF, module is in best-effort mode.	ON (1) OFF (0)	OFF (0)

Optical Transmitter Manufacturing Data Parameter Examples

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	1550 nm EM TX FTTP	
Module Type	1033	
Serial # [1]	MMAABAHZ	X
Date Code [1]	J05	X
Sw Ver [1]	2.03.00	
In Service Hours [1]	0 (initial value)	X
Spec Data (MANDATA) [1]	(blank)	X
CLEI Code [1] [2]	VLT3F0HDAD	X
CLLI Code [1] [2]	(blank)	

Note:

- [1] These values may vary from module to module. The values shown above are examples only.
- [2] These values are not visible from the ICIM2 front panel.

Optical Transmitter Monitor Parameter Examples

Parameter	Function	Initial Value	Operating Value (typ)
InRF	Relative RF input power	-12 dB (no input)	0.0 dB
OutPwr	Optical output power	+8.1 dBm	+8.1 dBm
CPLock	Constant power loop locked	0%	0%
ModTemp	Module temperature	30°C	30°C
LasTemp	Laser temperature	19.0°C	19.0°C
TecCur	Measured thermoelectric cooler current	0.56 A	0.29 A
LasBias	Laser bias current	218 mA	218 mA
Sbs1stat	SBS PLL #1 Locked (1) or Unlocked (0)	1 (Locked)	1 (Locked)
Psbs2G	2 GHz SBS power level	4.0 dBm	4.0 dBm
Mute	Current output muting status: ON (1) - laser disabled OFF (0) - laser enabled	OFF (0)	OFF (0)

Note: All monitored values may vary from module to module. The values shown above are examples only.

Optical Switch FTTP Parameters

Optical Switch User Alarm Data Parameters

User alarms have thresholds that can be set by the user. The default user alarm data for this module is shown below.

Alarm	Function	Low Threshold	High Threshold	Hys-teresis	Typical Range/ Nom. Value
PInLoss3	Detects loss of light at Input 3	< NomPin3 - Delta [1]	na	Hystampl [1]	19 to 23 dBm
PInLoss4	Detects loss of light at Input 4	< NomPin4 - Delta [1]	na	Hystampl [1]	19 to 23 dBm
TempAlm	Module temperature	-20	75	0.5	25.0°C

Note: [1] NomPin3, NomPin4, Delta, and Hystampl are control variables.

Optical Switch Module Alarm Data Parameters

Module alarms are set at the factory and may not be adjusted by the user. The module alarm data for this module is shown below.

Alarm	Function	Low Threshold	High Threshold	Hys-teresis	Typical Range/ Nom. Value
BothDark	Detects loss of light at both inputs [1]	< NomPin3 - Delta AND < NomPin4 - Delta [2]	na	na	OK or Fault
NoSwitch	Detects failure of switch [1]	na	na	na	OK or Fault
PsOk	Bus input voltage [1]	na	na	na	OK or Fault
XSPwr	Detects excessive optical input power [1]	na	24.0 dBm	na	OK or Fault

Note:

- [1] This alarm sets the unit to the safe state, in which the heater is turned off.
- [2] NomPin3, NomPin4, and Delta are control variables.

Optical Switch Control Parameters

Parameter	Function	Possible Values	Default
Mode	Selects Cross, Bar, or Auto mode	Cross (0) Bar (1) Auto (2)	Auto (2)
WaveLen	Selects wavelength of input for both inputs	1310 nm (0) 1550 nm (1)	1550 nm (1)
NomPin3	Nominal input power at Port 3 in dBm	-8.0 to 23.0 dBm, 0.1 dB steps	21.0 dBm
NomPin4	Nominal input power at Port 4 in dBm	-8.0 to 23.0 dBm, 0.1 dB steps	21.0 dBm
Delta	Value relative to nominal below which the input must fall to switch (Auto mode)	1 to 10 dB, in 0.1 dB steps	2.0 dB
HystAmpl	Hysteresis amplitude: the value above which the input must rise to start hyst timer to restore original switch position (only if Revert is Auto)	0.5 to 9.5 dB in 0.1 dB steps	1.0 dB
HystTime	Hysteresis time: length of time primary power is above restore threshold before switch to primary (only if Revert is Auto)	integer in seconds from 0 to 600	60 sec
Revert	Allows switch to revert to primary after power is restored; in Manual, switch stays in backup position	Manual (0) Auto (1)	Auto (1)
PrimInp	Selects primary input (Auto mode)	Port_3 (0) Port_4 (1)	Port_4 (1)
DfltSw	Selects the normal switch position (Auto mode)	Cross (0) Bar (1)	Bar (1)

Optical Switch Manufacturing Data Parameter Examples

Manufacturing Data	Typical Values	Set in Manufacturing (example value shown)
Module Name	Optical Switch FTTP	
Module Type	4011	
Serial # [1]	ABCDEFG	X
Date Code [1]	B01	X
Sw Ver [1]	1.01.04	
In Service Hours [1]	0 (initial value)	X
Spec Data (MANDATA) [1]	(blank)	X
CLEI Code [1] [2]	VLCMKL0EAB	X
CLLI Code [1] [2]	(blank)	

Note:

- [1] These values may vary from module to module. The values shown above are examples only.
- [2] These values are not visible from the ICIM2 front panel.

Optical Switch Monitor Parameter Examples

Parameter	Function	Initial Value (no input)	Operating Value (typ)
SwPos	Reads switch position	Bar (1)	Bar (1)
PwrIn3	Optical input power on Port 3	-11.47 dBm	21.5 dBm
PwrIn4	Optical input power on Port 4	-11.47 dBm	21.5 dBm
ModTemp	Module temperature	25.0°C	25.0°C
SwTemp	Switch temperature	25.0°C	25.0°C

Note: All monitored values may vary from module to module. The values shown above are examples only.

Glossary

ac, AC

alternating current. An electric current that reverses its direction at regularly recurring intervals.

AGC

automatic gain control. A process or means by which gain is automatically adjusted in a specified manner as a function of input level or other specified parameters.

binding

A parameter representing the physical or logical objects associated with a trap.

CAT5

category 5 Ethernet cable.

CDE

common desktop environment.

CLEI

common language equipment identifier. CLEI code is globally unique ten-character intelligent code, assigned by Telcordia, that identifies communications equipment in a concise, uniform feature-oriented language, which describes product type, features, source document and associated drawings and vintages.

CLI

command line interface. A command reference software that allows the user to interact with the operating system by entering commands and optional arguments.

CLLI

common language location identification. A CLLI code is typically an 11-character alphanumeric descriptor used to identify network elements and their locations.

CSV

comma-separated values. A data file format supported by many spreadsheet programs, in

which fields are separated by commas. Also referred to as comma delimited.

DB-37

37-pin D-sub connector.

dc, DC

direct current. An electric current flowing in one direction only and substantially constant in value.

EIA

Electronic Industries Association. A United States association that provides standards for use between manufacturers and purchasers of electronic products.

EMC

electromagnetic compatibility. A measure of equipment tolerance to external electromagnetic fields.

EMS

Element Management System. A system that controls a single element, or many elements of a single type. Usually works up into a full network management system (NMS).

EMT

externally-modulated transmitter.

ESD

electrostatic discharge. Discharge of stored static electricity that can damage electronic equipment and impair electrical circuitry, resulting in complete or intermittent failures.

FTTP

fiber-to-the-premises. Fiber optic service to the subscriber's premises.

GUI

graphical user interface. A program interface that takes advantage of a computer graphics capabilities to make the program visually easier to use.

I/O

input/output.

ICIM

intelligent communications interface module.

IP

Internet protocol. A standard that was originally developed by the United States Department of Defense to support the internetworking of dissimilar computers across a network. IP is perhaps the most important of the protocols on which the Internet is based. It is the standard that describes software that keeps track of the internetwork addresses for different nodes, routes, and outgoing/incoming messages on a network. Some examples of IP applications include email, chat, and Web browsers.

ISO

International Organization for Standardization. An international body that defines global standards for electronic and other industries.

LCD

liquid crystal display. A display medium made of liquid crystal. Liquid crystal's reflectance changes when an electric field is applied. Commonly used in monitors, televisions, cell phones, digital watches, etc.

LED

light-emitting diode. An electronic device that lights up when electricity passes through it.

MIB

management information base. SNMP collects management information from devices on the network and records the information in a management information base. The MIB information includes device features, data throughput statistics, traffic overloads, and errors.

nm

nanometer. One billionth of a meter.

NMS

network management system. A software system designed specifically to monitor a network and to facilitate troubleshooting.

OID

object identifier.

OMI

optical modulation index, expressed in decimal or percentage notation.

PLL

phase lock loop. An electronic servo system controlling an oscillator to maintain a constant phase angle relative to a reference signal.

polling

In a transmission network system, the active sampling of the status of network devices by a control and monitoring program.

RF

radio frequency. The frequency in the portion of the electromagnetic spectrum that is above the audio frequencies and below the infrared frequencies, used in radio transmission systems.

RMA

return material authorization. A form used to return products.

RT

remote terminal. Remote equipment of a supervisory system.

RTC

real time clock.

RX

receive or receiver.

SBS

stimulated Brillouin scattering. The easiest fiber nonlinearity to trigger. When a powerful lightwave travels through a fiber, it interacts with acoustical vibration modes in the glass. This causes a scattering mechanism to be formed that reflects some of the light back to the source.

semaphore

In programming, a control token (variable or abstract data type) used to restrict access to a resource. The SOUP program uses a semaphore to prevent multiple instances of the SOUP from running and trying to change Prisma II EMS chassis parameters at the same time.

SMC

status monitoring and control. The process by which the operation, configuration, and performance of individual elements in a network or system are monitored and controlled from a central location.

SNMP

simple network management protocol. A protocol that governs network management and the monitoring of network devices and their functions.

SOUP

software upgrade program. A utility used to update firmware in Prisma II EMS application modules.

TEC

thermoelectric cooler. A device used to dissipate heat in electronic assemblies.

Telco

telephone company.

trap

An unsolicited message sent by a network device to notify a network or element management system of an alarm or other condition that requires administrative attention.

TX

transmit or transmitter.

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Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA

http://www.cisco.com
Tel: 408 526-4000
800 553-6387
Fax: 408 527-0883

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