Cisco Local Craft Interface (LCI) Software Installation Guide

Overview

Local Craft Interface (LCI) is software that functions as a user interface to Prisma II and Prisma II XD components, legacy strand-mounted optical amplifiers (SMOAs), optical nodes, and RF amplifiers.

The LCI software is installed on a Windows laptop or desktop PC. The PC is connected to the chassis or device via the LCI port.

Note: LCI is intended to be used to configure and troubleshoot the modules in the chassis or devices to which the PC is connected. It is not intended as a substitute for a network or element management system such as ROSA.

Purpose

This document provides instructions for installing and using the LCI software.

Audience

This document is intended for system engineers, managers, and customers responsible for operating or maintaining Prisma II and Prisma II XD components, legacy SMOAs, optical nodes, and RF amplifiers.

Qualified Personnel

Only appropriately qualified and skilled service 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.**

Related Publications

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

- *Prisma II Platform Installation Guide*, part number 4035195

- *Compact EGC Segmentable Node A90200 Installation and Operation Guide*, part number 4032830

- *Compact EGC Fiber Deep Node 90100 and 90300 Installation and Operation Guide,* part number 4024142

- *Compact EGC Amplifier 93250 Installation and Setup Instructions,* part number 4015252

- *Compact Mini EGC Amplifier 93230 and 93240 Mounting Instructions,* part number 4010069

- *Compact Single Output EGC Amplifier A93280 Installation and Operation Guide,* part number 4038501

- *Compact Dual Output EGC Amplifier A93270 Installation and Operation Guide,* part number 4029501

- *Model 9106x HMS Transponder Installation Instructions,* part number 4012401

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.**

In This Document

System Requirements

You will need the following computer software and hardware to run LCI.

Computer Requirements

- Pentium II 300 MHz processor or equivalent
- 128 MB RAM
- 10 MB available hard drive space
- CD-ROM Drive
- Windows 95 or later operating system software

Cable Requirements

For Prisma II and Prisma II XD chassis, the required cable is a standard serial extension cable, DB9 Female to DB9 Male. This cable can be purchased locally or ordered from the factory as part number 180143. The connectors are a serial 9-pin D-shell (EIA 574/232).

For optical nodes, amplifiers, and transponders, the required cable is included in Configuration Kit part number A91220.10. This cable allows for connection between a PC and the device via the USB connector on the PC.

Note: The USB cable cannot be used with the SMC Transponder for communication with LCI. Instead, use the serial cable to connect the PC to the transponder.

Installing LCI

This section describes the procedure for installing your LCI software. The installation steps shown here pertain to LCI release 2.4.

To Install the LCI Software

Complete the following steps to install the LCI software.

1 Obtain the LCI installation program from **www.cisco.com/support** and copy the program file to your Windows desktop.

   Note: If you need help locating the LCI installation program, contact Cisco Services at 1-800-283-2636 for assistance.

2 Launch the LCI installation program. The Welcome screen appears as shown in the following illustration.
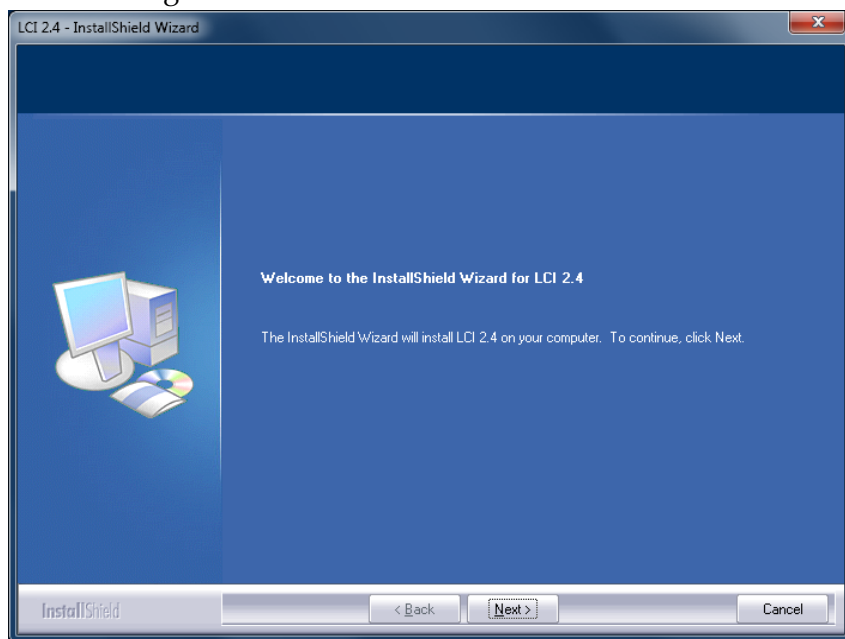
3 Click **Next** to continue with the installation process. The Ready to Install the Program screen appears as shown in the following illustration.
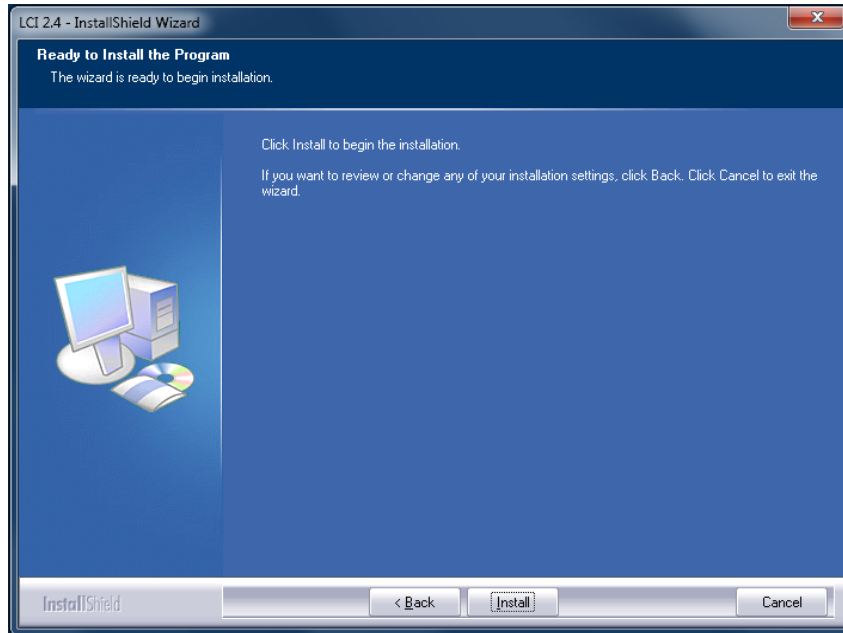

4 Click **Install** to begin installation. After a moment, the Setup Status screen appears, displaying a progress indicator as shown in the following illustration.
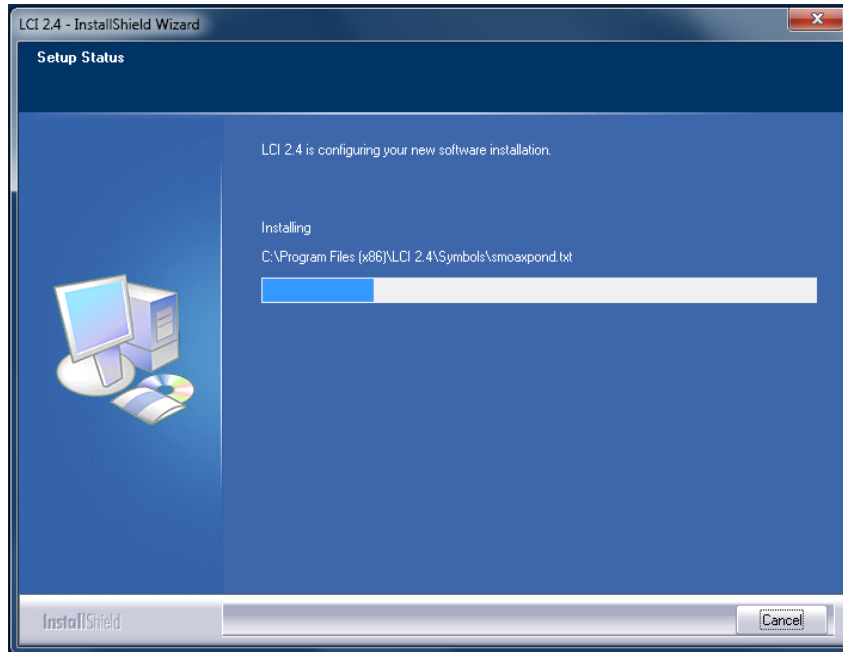

5 When finished, the wizard asks if you want to install the Silicon Labs driver, which is required when using LCI with a node product.

■ If you are using LCI with a node product, choose the **Launch** option, click **Next**, and follow steps of the wizard to install the driver.

■ If you are not using LCI with a node product, choose the **Exit Installation** option and then click **Next**.
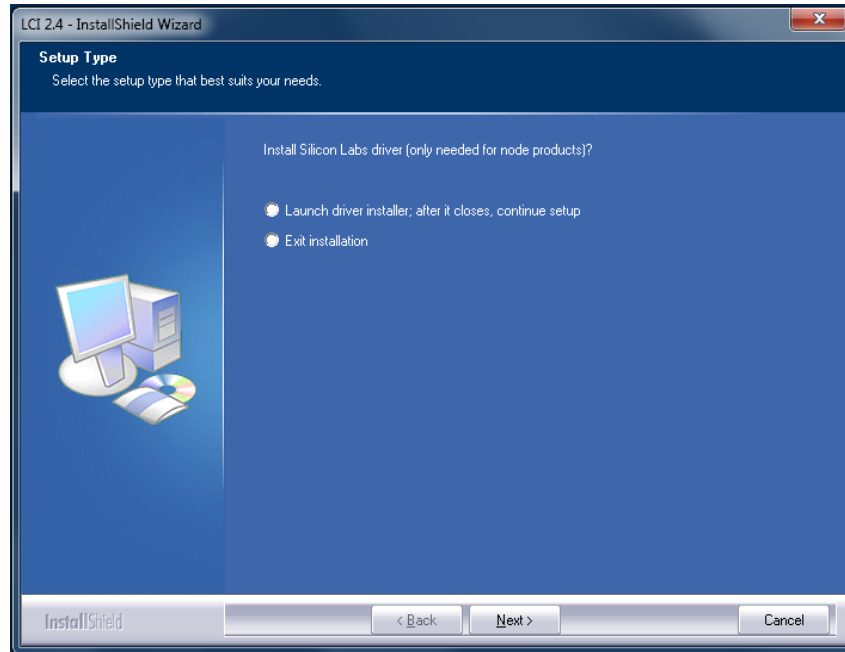
6 When finished, the InstallShield Wizard Complete screen appears as shown in the following illustration.
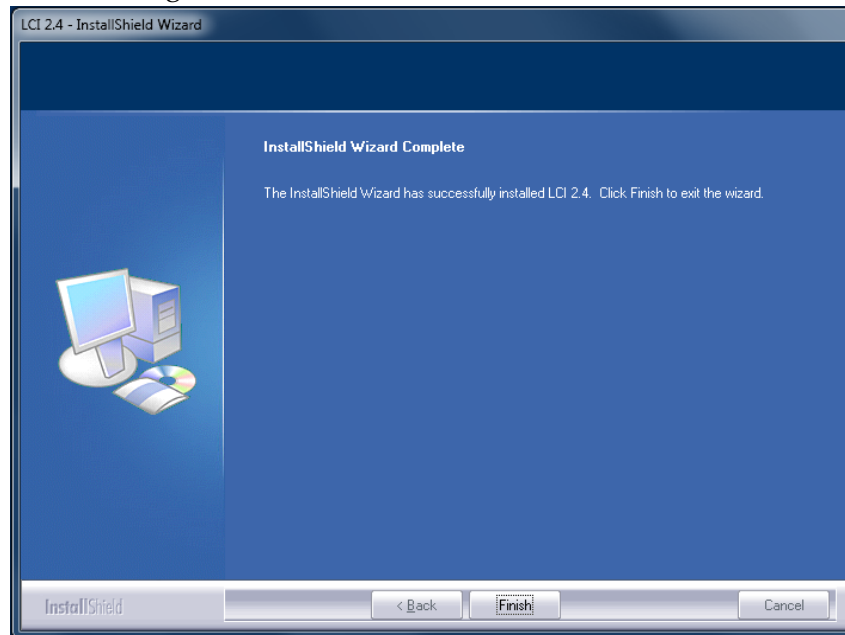
7 Click **Finish** to exit the Install wizard. An LCI shortcut is placed on your Windows desktop as shown in the following illustration.

The LCI software is now ready to use.

To Update the Devtypes Folder

Each module has a devtype number, generally 4 digits long, that is used to identify the module. LCI uses this number to know what information to display. When LCI starts looking for modules, it reads the type number from each module and looks in its devtypes folder for a matching file.

New modules and features are added continually, so it is possible that LCI may not recognize a particular module. To get around this, you should update the LCI devtypes folder, typically located at c:\Program Files\LCI\Devtypes, after installing LCI.

To update the devtypes folder, go to www.cisco.com/support and search on devtypes to locate the most current devtypes file (typically a .zip file). After downloading the file, unzip and extract the file contents to the devtypes folder on your PC.

Note: The module type number can also be viewed with the ICIM.

Connecting Your Computer to the Chassis

Before you start LCI, you must first connect your computer to the chassis that contains the module(s) you want to check.

Important:

■ LCI only communicates with modules installed in the chassis to which your computer is connected. To check other modules, you must connect your computer to the chassis in which they are installed.

■ If LCI does not communicate with a module in the chassis to which your computer is connected, it may be necessary to update the LCI application.

To Connect the Computer to a Prisma II Chassis

Complete the following steps to connect your computer to the chassis.

1   Plug one end of a 9-pin RS-232 serial extension cable into your computer.

2   Plug the other end of the cable into the LCI port, labeled **Local Craft Interface**.
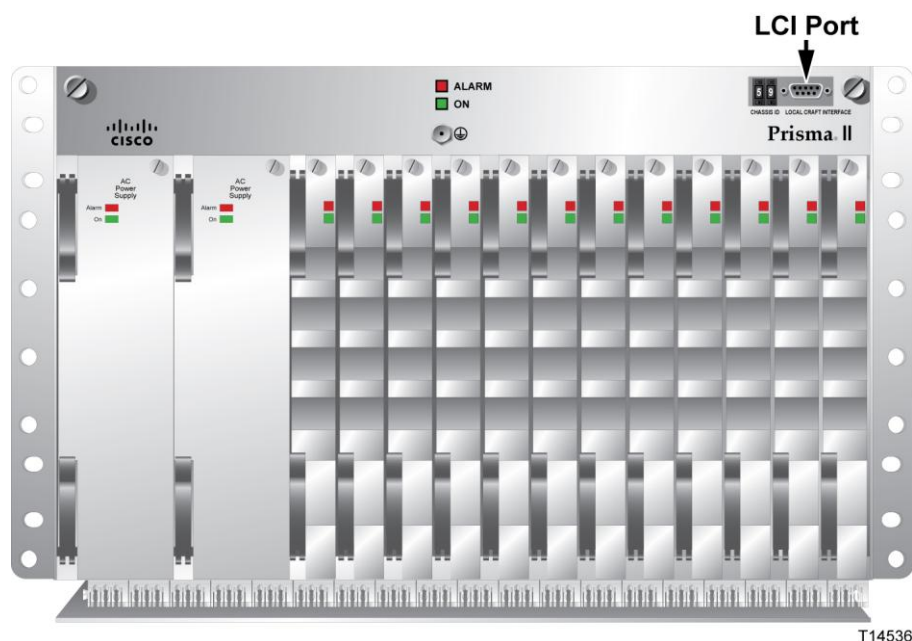
To Connect the Computer to a Node or RF Amplifier

Complete the following steps to connect your computer to a node or RF amplifier.

1   Plug the USB end of the USB-LCI cable into your computer.

2   Plug the LCI end of the USB-LCI cable into the node or RF amplifier LCI port.

Starting LCI Software

When LCI is started, it polls the module(s) located in the chassis to which your computer is attached. For each module it finds, LCI does the following:

- Represents the module in the module tree of the main LCI window

- Makes the polling information available so you can check and configure various parameters

Important: Your computer must be connected to the chassis before you start LCI. For instructions, refer to *Connecting Your Computer to the Chassis* (on page 9).
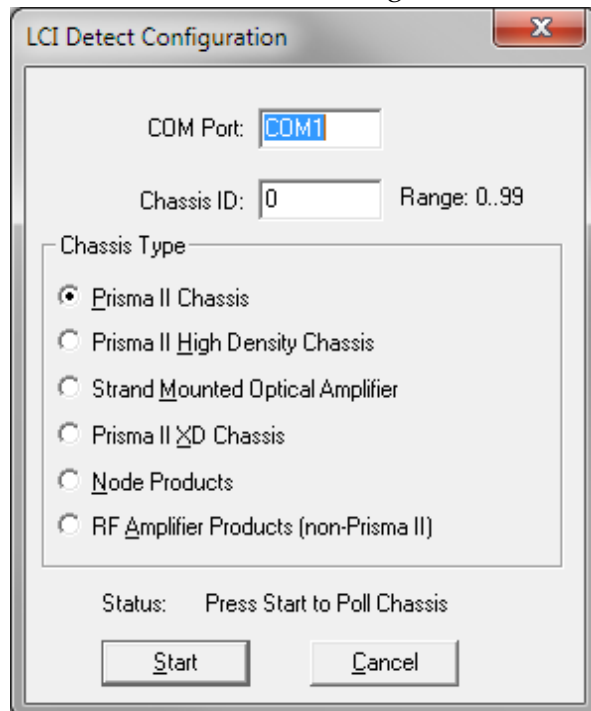
To Start LCI Software

Complete the following steps to start the LCI software.

1   Double-click the LCI icon on your Windows desktop.

Result: The LCI Detect Configuration window appears as shown below.

2 In the LCI Detect Configuration window, enter the appropriate COM port and chassis ID, and then select one of the following chassis types as appropriate:

- ■ **Prisma II Chassis** for the standard (full height) Prisma II chassis
- ■ **Prisma II High Density Chassis** for the targeted services delivery (TSD) platform
- ■ **Strand Mounted Optical Amplifier** for a legacy SMOA
- ■ **Prisma II XD Chassis** for the half-height, high-density Prisma XD chassis
- ■ **Node Products** for nodes and transponders
- ■ **RF Amplifier Products (non Prisma II)** for other node products
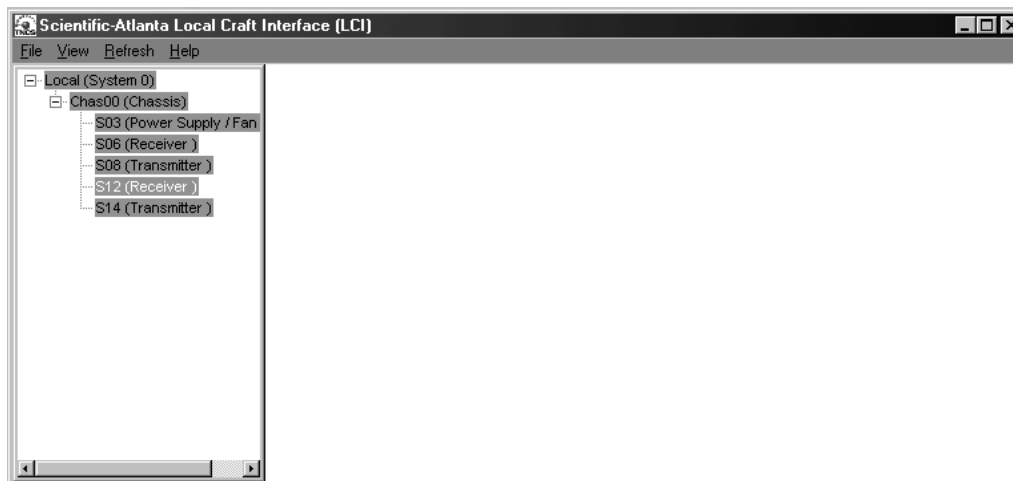
3 Click **Start**.

Result: LCI polls the modules in the chassis, and when finished, displays a Refresh Complete message.

4 Click **OK** to continue with LCI startup.

Result: The main LCI window appears as shown in the example below.

LCI Module Tree

The LCI main window contains a tree that represents your system in a hierarchical manner, as shown in the following example.

Module Tree

The module tree shown above represents a computer connected to a chassis that contains several application modules. The following table describes the three tree levels in the hierarchy.

Module Tree Level	Description
Local (System 0)	Computer being used
Chass00 (Chassis)	Chassis to which the computer is connected
Sxxxx (Module name)	Module(s) located within the chassis. Each module is of the format *chassis slot location (module name)*. **Example:** In the module tree shown above, S03 (Power Supply / Fan Tray) represents the power supply located in slot 3 of the chassis.

Accessing Module Details

The Module Details window displays information about module parameters, alarms, and status. You can access this window from the module tree using any of these methods:

- Double-click the chassis and select the module in the graphic that appears.
- Right-click the chassis and select **Open** from the menu that appears.
- Double-click the module.
- Right-click the module and select **Details** from the menu that appears.

You can use the method most convenient for you. The procedures throughout this section are described using the right-click module technique.

Note: Two items that may appear in the Module Details window are mode-specific. Manual Alarm status only appears in the Controls section when Master mode is selected. Relay status only appears in the Status section when Slave mode is selected.

Sample Module Details Window

Checking Operating Status

To Check the Operating Status using LCI

Using the LCI, you can check the status of all module operating parameters.

1 In the module tree, right-click the module, and then click **Details**.
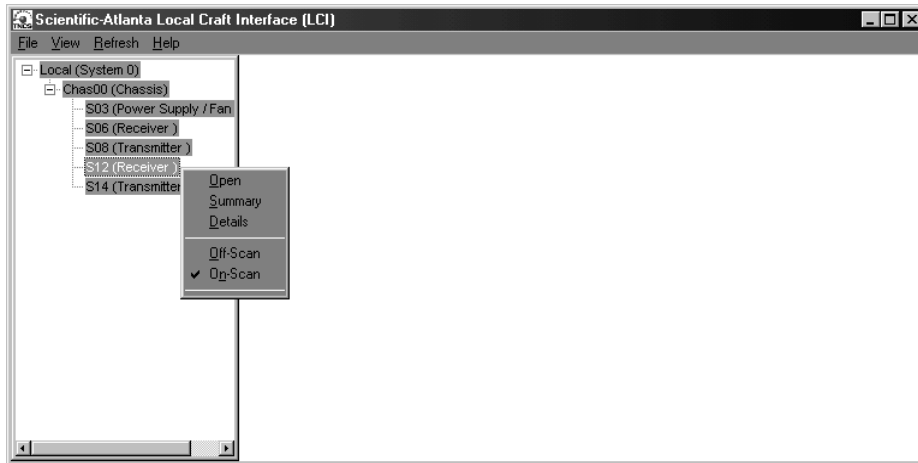
The Module Details window appears as shown in the following example. The monitored parameters are displayed under **Parameters** and **Status**.

Power Supply / Fan Tray

Parameters

	Present Value	Present Status	Nominal Value	Minor-Alarm Low-Limit	Minor-Alarm High-Limit	Major-Alarm Low-Limit	Major-Alarm High-Limit	
Chassis Temperature	27.7	Normal	25	-35	60	-40	65	deg-C
+24V Power Supply 1	24.8	Normal	24.7	18.4	25.9	18.0	26.1	V
+5V Power Supply 1	5.4	Normal	5.4	3.7	5.9	3.6	6.1	V
-5V Power Supply 1	-5.4	Normal	-5.4	-5.5	-4.6	-5.6	-4.5	V
+24V Power Supply 3	0.1	Low	24.7	18.4	25.9	18.0	26.1	V
+5V Power Supply 3	0.2	Low	5.4	3.7	5.9	3.6	6.1	V
-5V Power Supply 3	0.0	High	-5.4	-5.5	-4.6	-5.6	-4.5	V

Alarms

Summary Status	Alarm
Communication Status	Normal
Fans Status	Alarm
Input PS1 Status	Normal
Input PS3 Status	Alarm
PS1 Summary Status	Normal
PS3 Summary Status	Alarm

Status

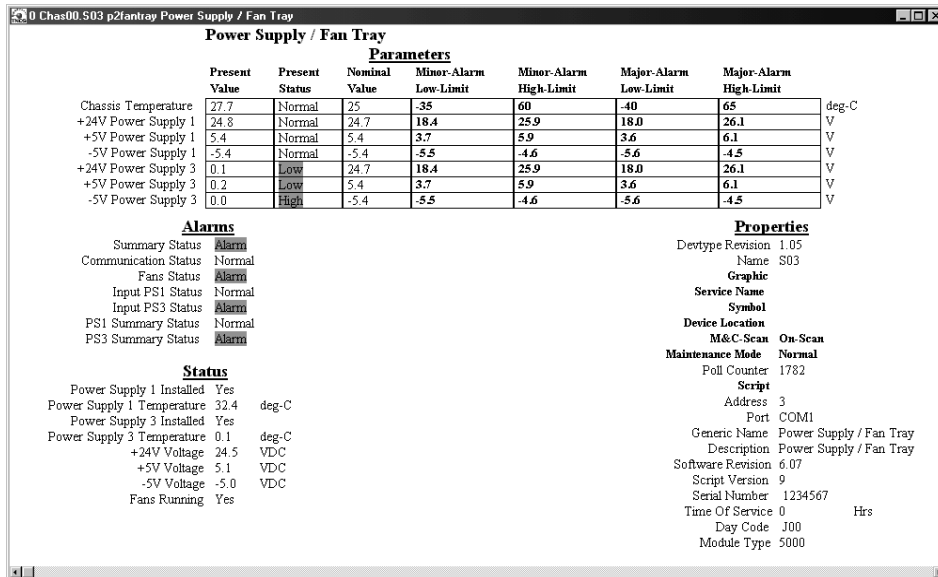|		
Power Supply 1 Installed	Yes	
Power Supply 1 Temperature	32.4	deg-C
Power Supply 3 Installed	Yes	
Power Supply 3 Temperature	0.1	deg-C
+24V Voltage	24.5	VDC
+5V Voltage	5.1	VDC
-5V Voltage	-5.0	VDC
Fans Running	Yes	

Properties

Devtype Revision	1.05	
Name	S03	
Graphic		
Service Name		
Symbol		
Device Location		
M&C-Scan	On-Scan	
Maintenance Mode	Normal	
Poll Counter	1782	
Script		
Address	3	
Port	COM1	
Generic Name	Power Supply / Fan Tray	
Description	Power Supply / Fan Tray	
Software Revision	6.07	
Script Version	9	
Serial Number	1234567	
Time Of Service	0	Hrs
Day Code	J00	
Module Type	5000	

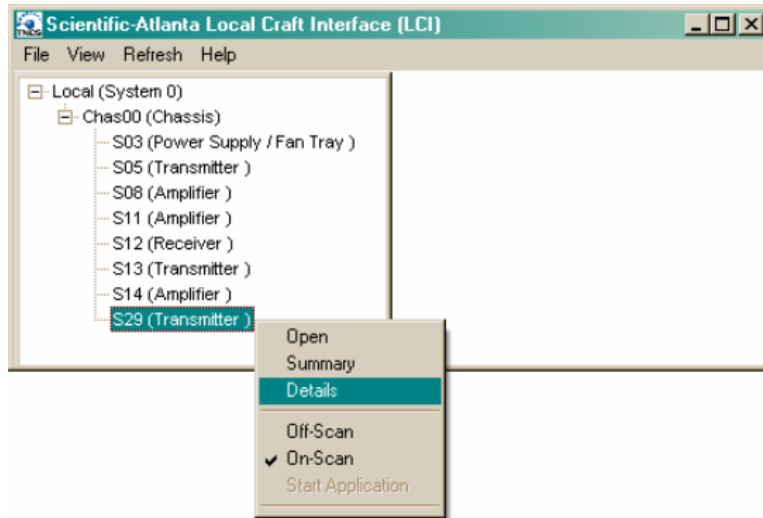**2** Check the operating parameters.

Note: For detailed information on chassis and application module parameters, see the associated user documentation.

Configuring Operating Parameters

To Configure Parameters using LCI

Using LCI, you can configure any module parameters that allow for such changes.

1 In the module tree, right-click the module, and then click **Details**.

The Module Details window appears as shown in the following example.

2 Under **Controls,** double-click the parameter you want to configure. The Change Value Dialog box appears. This example shows the dialog box for the Enable Laser parameter.
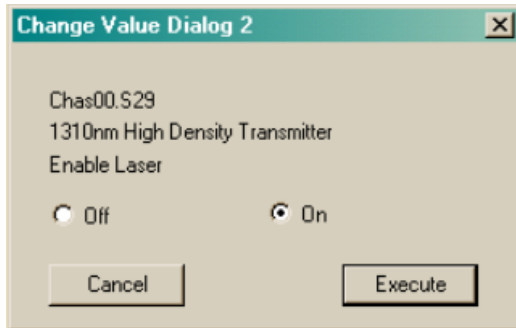
3 Depending on the parameter you chose, select or type a new value.

4 Click **Execute**. The new value appears next to the parameter.

Note: For detailed information on chassis and application module parameters, see the associated user documentation.
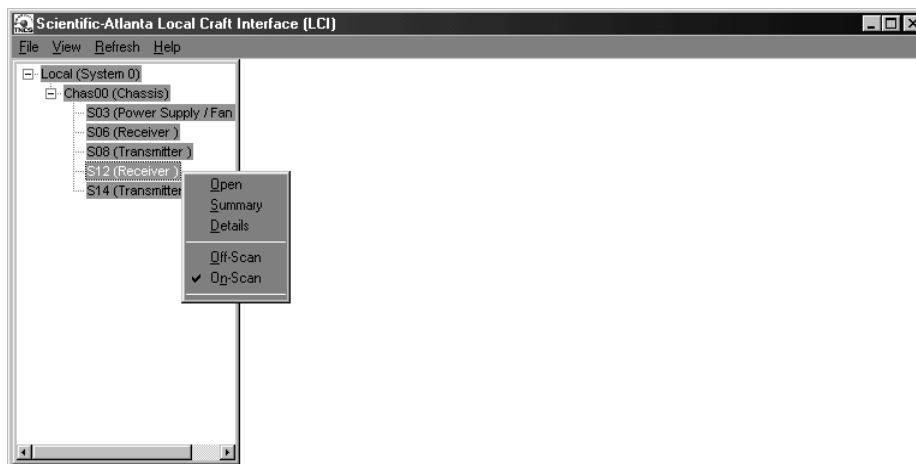
Checking Module Alarms

Using LCI, you can check the alarm status of various parameters. Alarms limits fall into one of the following categories.

■ Major low

■ Minor low

■ Minor high

■ Major high

To Check Alarms using LCI

Right-click the module, and then click **Details**.

The Module Details window appears as shown in the following example. The alarms are shown under **Parameters** and **Alarms.**
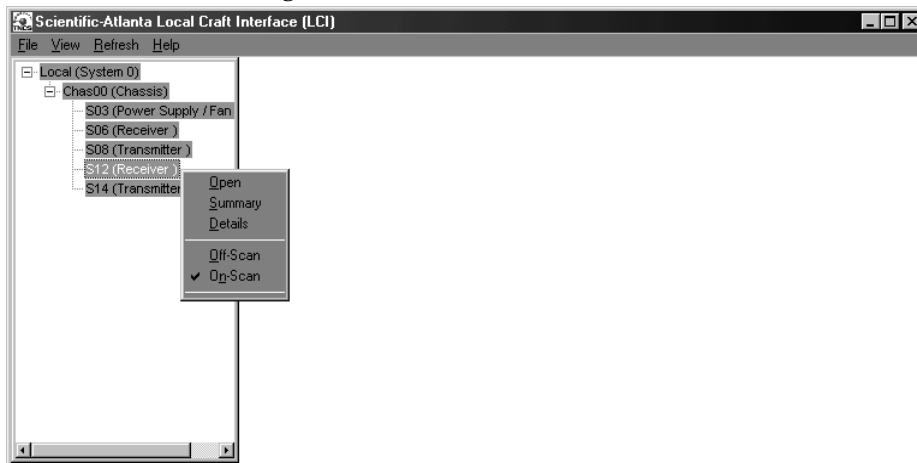

Note: For detailed information on chassis and application module parameters, see the associated user documentation.
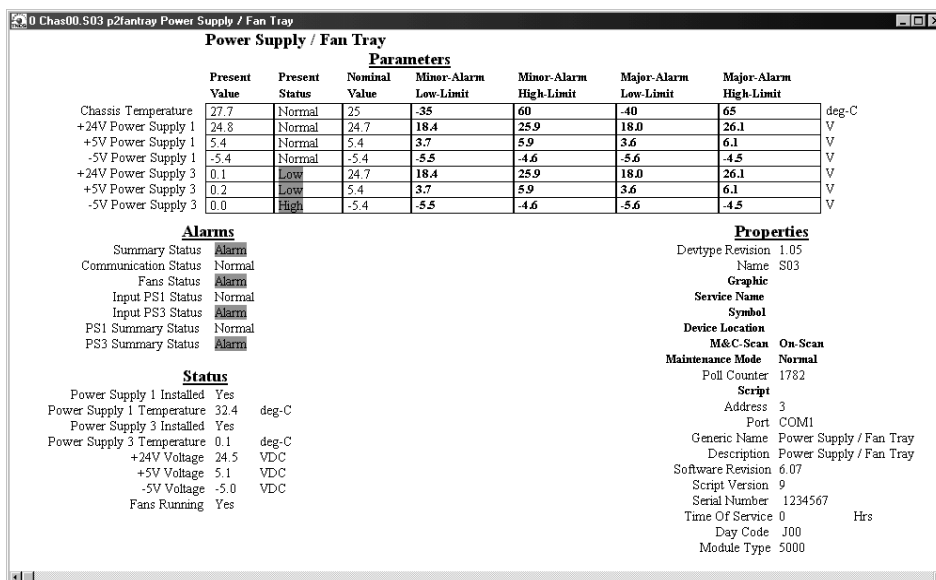
Modifying Module Alarm Limits

To Modify Alarm Limits using LCI

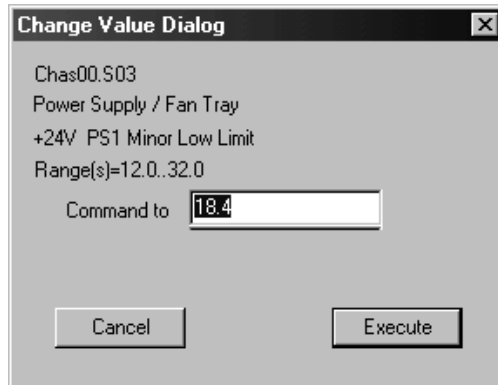Using LCI, you can modify alarm limits for parameters that allow for such changes.

1 In the module tree, right-click the module, and then click **Details**.

The Module Details window appears as shown in the following example. The alarm limits are shown under **Parameters**.

Power Supply / Fan Tray

Parameters

	Present Value	Present Status	Nominal Value	Minor-Alarm Low-Limit	Minor-Alarm High-Limit	Major-Alarm Low-Limit	Major-Alarm High-Limit	
Chassis Temperature	27.7	Normal	25	-35	60	-40	65	deg-C
+24V Power Supply 1	24.8	Normal	24.7	18.4	25.9	18.0	26.1	V
+5V Power Supply 1	5.4	Normal	5.4	3.7	5.9	3.6	6.1	V
-5V Power Supply 1	-5.4	Normal	-5.4	-5.5	-4.6	-5.6	-4.5	V
+24V Power Supply 3	0.1	Low	24.7	18.4	25.9	18.0	26.1	V
+5V Power Supply 3	0.2	Low	5.4	3.7	5.9	3.6	6.1	V
-5V Power Supply 3	0.0	High	-5.4	-5.5	-4.6	-5.6	-4.5	V

Alarms

Summary Status	Alarm
Communication Status	Normal
Fans Status	Alarm
Input PS1 Status	Normal
Input PS3 Status	Alarm
PS1 Summary Status	Normal
PS3 Summary Status	Alarm

Status

Power Supply 1 Installed	Yes	
Power Supply 1 Temperature	32.4	deg-C
Power Supply 3 Installed	Yes	
Power Supply 3 Temperature	0.1	deg-C
+24V Voltage	24.5	VDC
+5V Voltage	5.1	VDC
-5V Voltage	-5.0	VDC
Fans Running	Yes	

Properties

Devtype Revision	1.05	
Name	S03	
Graphic		
Service Name		
Symbol		
Device Location		
M&C-Scan	On-Scan	
Maintenance Mode	Normal	
Poll Counter	1782	
Script		
Address	3	
Port	COM1	
Generic Name	Power Supply / Fan Tray	
Description	Power Supply / Fan Tray	
Software Revision	6.07	
Script Version	9	
Serial Number	1234567	
Time Of Service	0	Hrs
Day Code	J00	
Module Type	5000	

2 Double-click the limit you want to change. This example shows a Change Value dialog box for the Power Supply 1 +24V Minor Low Limit parameter.

```
┌─────────────────────────────────────────────┐
│ Change Value Dialog                      [X] │
├─────────────────────────────────────────────┤
│  Chas00.S03                                  │
│  Power Supply / Fan Tray                     │
│  +24V  PS1 Minor Low Limit                   │
│  Range(s)=12.0..32.0                         │
│                                              │
│    Command to   │18.4        │               │
│                                              │
│                                              │
│    ┌──────────┐        ┌──────────┐          │
│    │  Cancel  │        │ Execute  │          │
│    └──────────┘        └──────────┘          │
└─────────────────────────────────────────────┘
```

3 To change the limit value, type the desired value in the **Command to** box.

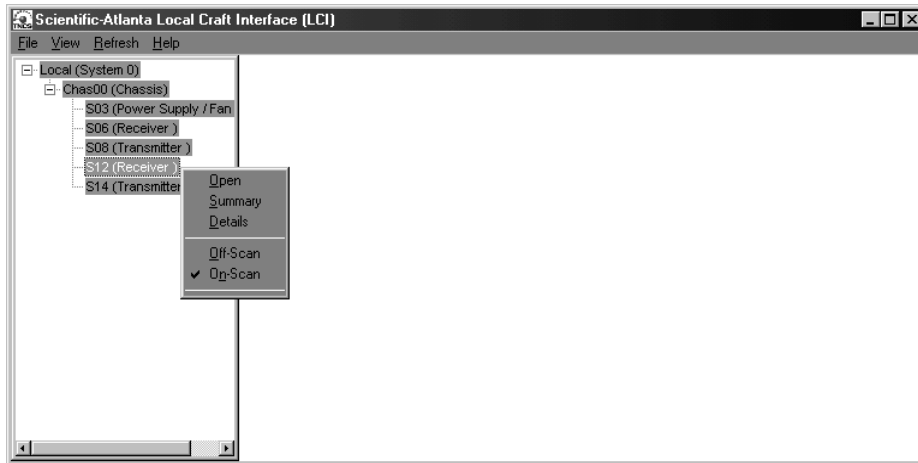**4** Click **Execute**. The new value appears in the alarm limit column.

Note: For detailed information on chassis and application module parameters, see the associated user documentation.
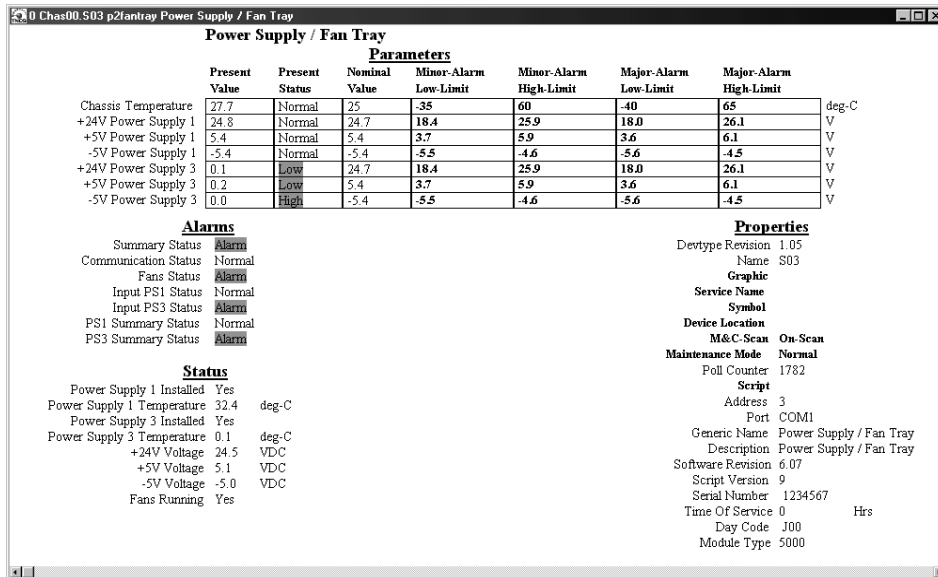
Checking Manufacturing Data

To Check Manufacturing Data using LCI

Using LCI, you can check the manufacturing data for a selected module.

1 In the module tree, right-click the module, and then click **Details**.

The Module Details window appears as shown in the following example. The manufacturing data is displayed under **Properties.**

2 Proceed with viewing the manufacturing data.

Note: For detailed information on chassis and application module parameters, see the associated user documentation.

For 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.