Sun™ Management Center 3.0 Supplement for Sun Fire™ 6800, 4810, 4800, and 3800 Systems

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Preface

This book describes the use of Sun™ Management Center 3.0 software on Sun Fire™ 6800, 4810, 4800, and 3800 systems.

The Sun Management Center 3.0 software and documents for Sun Fire 6800, 4810, 4800, and 3800 systems are available in French, German, Italian, Spanish, Japanese, Korean, Simplified Chinese, and Traditional Chinese. However, the examples of screens in this supplement appear only in English.

Typographic Conventions

Typeface	Meaning	Examples
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `% You have mail.`
`AaBbCc123`	What you type, when contrasted with on-screen computer output	`% su` `Password:`
AaBbCc123	Book titles, new words or terms, words to be emphasized	Read Chapter 6 in the *User's Guide*. These are called *class* options. You *must* be superuser to do this.
	Command-line variable; replace with a real name or value	To delete a file, type `rm` *filename*.

Shell Prompts

Shell	Prompt
C shell	*machine_name*%
C shell superuser	*machine_name*#
Bourne shell and Korn shell	$
Bourne shell and Korn shell superuser	#

Related Documentation

Application	Title	Part Number
Software installation	*Sun Management Center 3.0 Software Installation Guide*	806-5943
Software use	*Sun Management Center 3.0 Software User's Guide*	806-5942
Changes, Limitations, and Bugs for Sun Fire 6800, 4810, 4800, and 3800 Systems	*Sun Management Center 3.0 Release Notes for Sun Fire 6800, 4810, 4800, and 3800 Systems*	816-3612
Dynamic reconfiguration, command line interface	*Sun Fire 6800, 4810, 4800, and 3800 Systems Dynamic Reconfiguration User Guide*	806-6783
Platform administration	*Sun Fire 6800/4810/4800/3800 Systems Platform Administration Manual*	805-7373
Command reference	*Sun Fire 6800/4810/4800/3800 System Controller Command Reference Manual*	805-7372
Hardware service	*Sun Fire 6800/4810/4800/3800 Systems Service Manual*	805-7363
Starfire servers	*Sun Management Center 3.0 Supplement for Starfire Servers*	806-7231
Sun Fire 15K systems	*Sun Management Center 3.0 Release Notes for Sun Fire 15K Systems*	816-2702
Sun Fire 15K systems	*Sun Management Center 3.0 Supplement for Sun Fire 15K Systems*	816-2701
Sun Fire™ Link systems	*Sun Management Center 3.0 Supplement for Sun Fire Link Systems*	806-1405

For a list of other related documents, see the *Sun Management Center 3.0 Software Release Notes* on the Sun Management Center Web site:

`http://www.sun.com/sunmanagementcenter`

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CHAPTER 1

Introduction

This chapter introduces Sun™ Management Center 3.0 Software platform and domain administration on Sun Fire™ 6800, 4810, 4800, and 3800 systems.

Sun Fire 6800, 4810, 4800, and 3800 Systems Supplement Software

Sun Management Center 3.0 software allows you to monitor Sun systems from a platform such as a workstation or server. You can also use Sun Management Center 3.0 software to manage various remote operations and applications through the network. The Sun Fire 6800, 4810, 4800, and 3800 systems supplement software adapts the basic Sun Management Center 3.0 software to function with Sun Fire 6800, 4810, 4800, and 3800 systems.

To use the dynamic reconfiguration features described in Chapter 5, you need a thorough understanding of dynamic reconfiguration operations. This supplement describes using Sun Management Center software to perform dynamic reconfiguration operations. For an overall description of dynamic reconfiguration operations that apply to the Sun Fire 6800, 4810, 4800, and 3800 systems, refer to the *Sun Fire 6800, 4810, 4800, and 3800 Systems Dynamic Reconfiguration User Guide*.

The Capacity on Demand (COD) option is available on some Sun Fire systems. If your Sun Fire system has the COD option, Sun Management Center 3.0 software must run full-time so that the COD software can automatically monitor licensing for the COD option and automatically email status reports about COD usage to Sun Microsystems™, Inc.

A Sun Fire 6800, 4810, 4800, or 3800 system is divided into hardware domains, with each domain running a separate copy of the Solaris™ operating environment. Depending on the capability and the number of hardware resources in the system, a

Sun Fire 6800, 4810, 4800, or 3800 system can support up to four domains. (The minimum is one domain.) Because domains are used, the Sun Fire 6800, 4810, 4800, and 3800 systems supplement software has two modes of operation (FIGURE 1-1):

- **Domain administrators** can only access Solaris operating environment domain views through the Sun Management Center agent running on a Sun Fire 6800, 4810, 4800, or 3800 domain, or through the Sun Management Center platform agent that is doing proxy management for the SNMP agent running on the Sun Fire 6800, 4810, 4800, or 3800 system controller.
- **Platform administrators** can access platform views from the system controller console through the Sun Management Center platform agent.

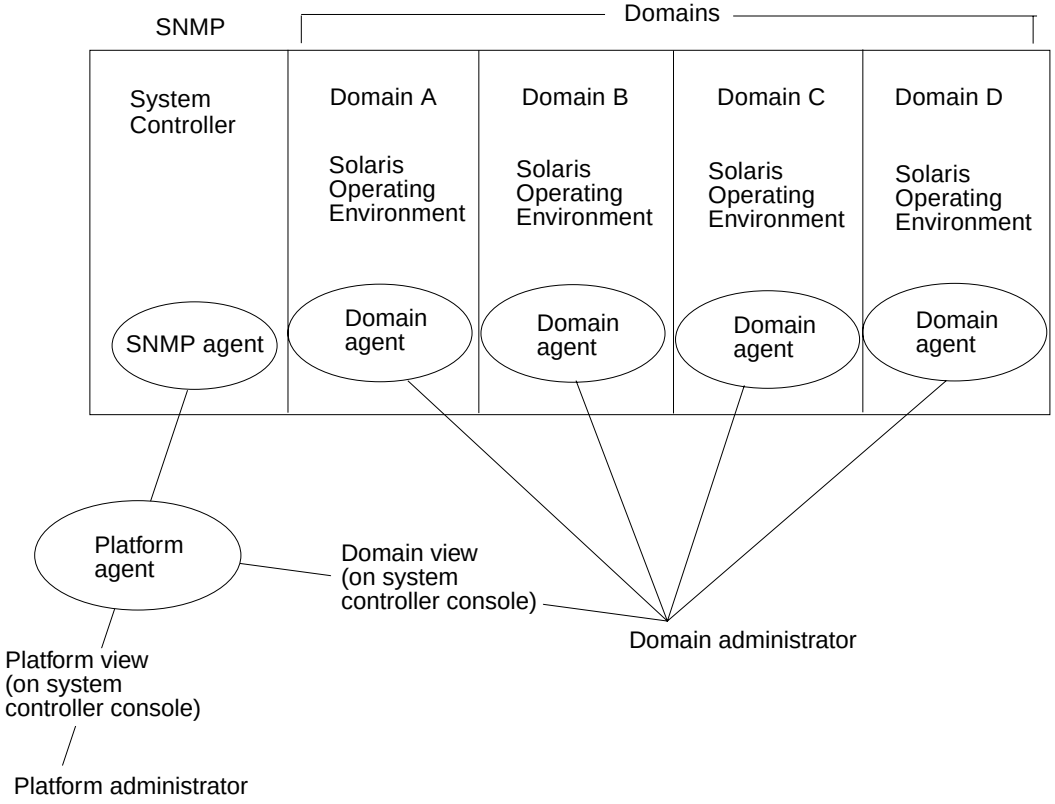

FIGURE 1-1 Platform and Domain Administration Views

After the supplement software has been installed on a system (workstation or server), you can run Sun Management Center 3.0 software on that system to access the system controller in a Sun Fire 6800, 4810, 4800, or 3800 system.

The initial software supplement setup creates one platform agent, which provides access to one system controller. To access additional system controllers on other Sun Fire 6800, 4810, 4800, and 3800 systems, install an agent instance for each system controller (FIGURE 1-2).

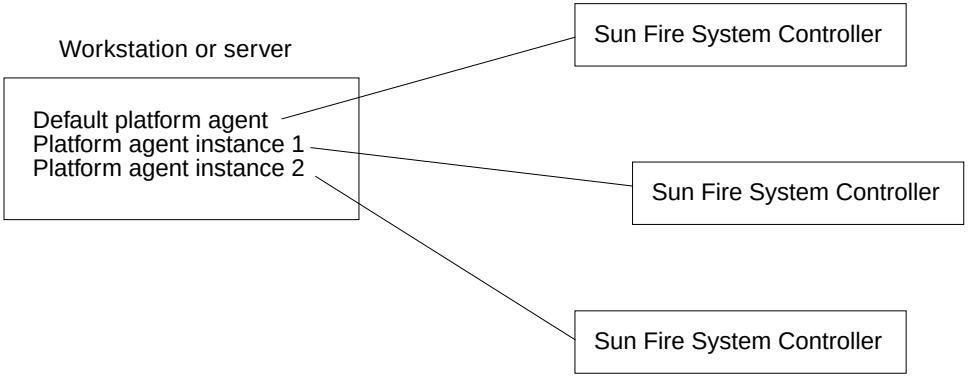

FIGURE 1-2 Platform Agents Provide Access to Sun Fire 6800, 4810, 4800, and 3800 System Controllers

Terms Used in This Book

Note – In this document, “administrative domain” refers to a Sun Management Center administrative domain, and should not be confused with other uses of the term “domain” related to other Sun products or documentation.

Administrative domain — An administrative domain consists of one or more host systems.

Dynamic reconfiguration — The Sun Fire 6800, 4810, 4800, and 3800 supplement software provides a graphical user interface to facilitate dynamic reconfiguration operations. Dynamic reconfiguration software is a part of the Solaris operating environment and provides the ability to safely remove or install system boards or compact PCI I/O cards into a system while the Solaris operating environment is running. Dynamic reconfiguration software also provides the ability to transfer system boards or compact PCI I/O cards from one domain to another, while the Solaris operating environment is running.

Platform — An alternate term for a complete system. A Sun Fire 6800 system is an example of a platform, as described in this book.

Domain or **hardware domain** — Within a Sun Fire 6800, 4810, 4800, or 3800 platform, a domain can consist of logically independent multiple sections within a partition, with each domain running a separate copy of the operating system. This type of domain consists of system boards and other devices, as opposed to an administrative domain, which can consist of multiple hardware domains and entire platforms. For clarity, this type of domain is referred to as a “hardware domain” in this book.

FIGURE 1-3 shows an example of an administrative domain. Note that the administrative domain includes complete systems and hardware domains.

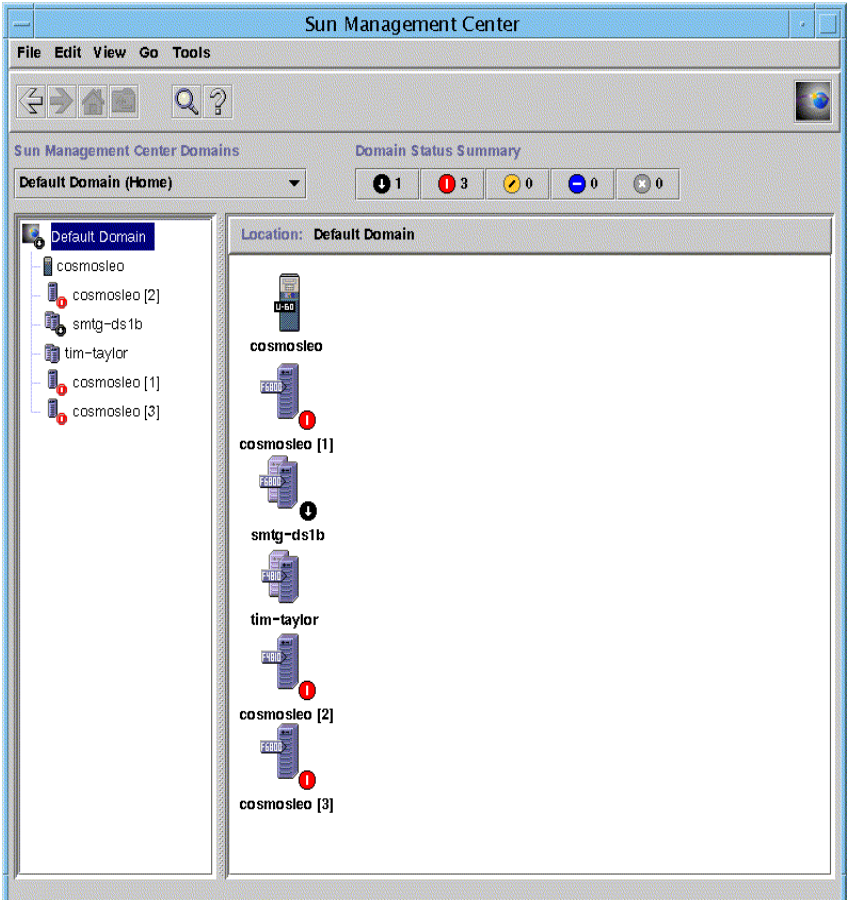

FIGURE 1-3 Main Console Window Showing an Administrative Domain Containing Multiple Hosts

For contrast, FIGURE 1-4 shows hardware domains in a host.

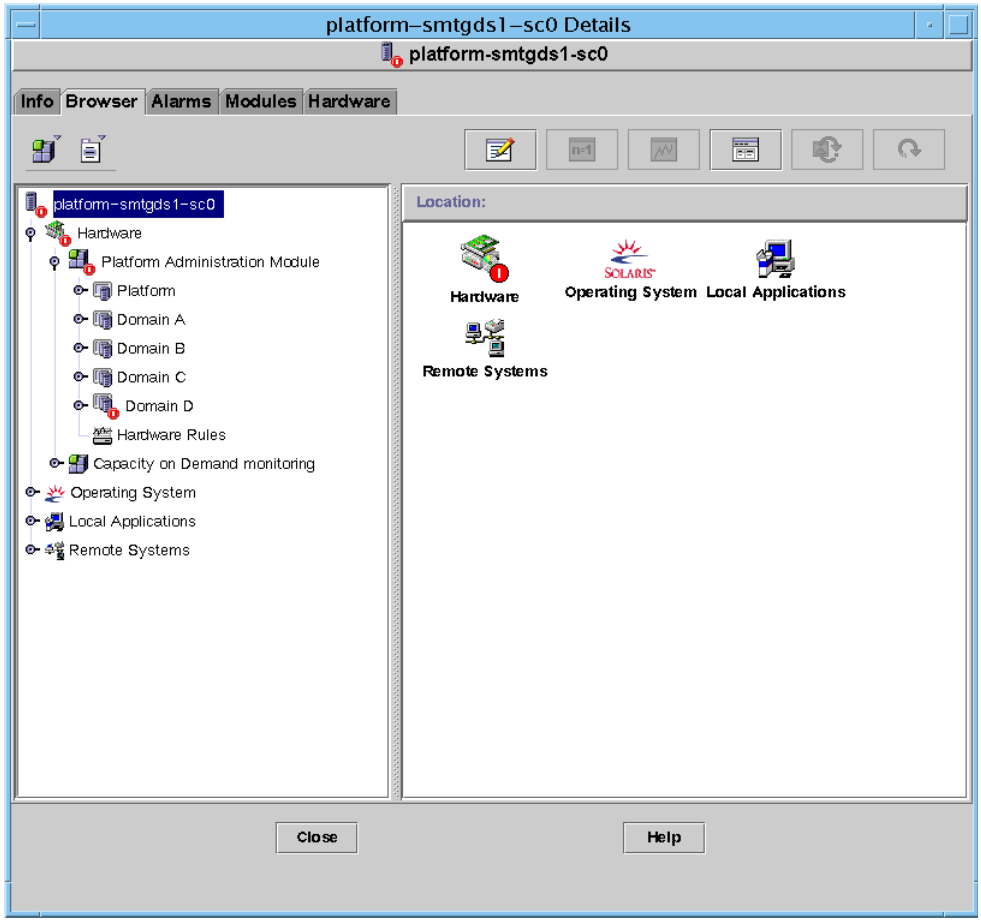

FIGURE 1-4 Details View of a Sun Fire 6800, 4810, 4800, or 3800 Platform With Multiple Hardware Domains

FIGURE 1-5 shows typical icons for a Sun Fire 6800 system. Icons for other types of Sun Fire systems display corresponding model numbers.

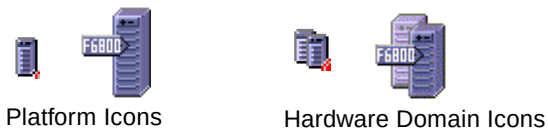

FIGURE 1-5 Typical Sun Fire 6800 Icons

Identifying Platforms and Hardware Domains

The platform and hardware domain Details windows are very similar when they are first displayed. By default, both windows open to the Browser tab. FIGURE 1-6 compares the Details windows for a typical platform and a typical hardware domain.

- **Platform:** To identify a platform Details window, look for a platform icon (FIGURE 1-6) and five tabs (Info, Browser, Alarms, Modules Hardware).
- **Hardware domain:** To identify a hardware domain Details window, look for a hardware domain icon (FIGURE 1-6) and seven tabs. The tabs include the five tabs listed above for a platform, plus a View Log tab and an Applications tab.

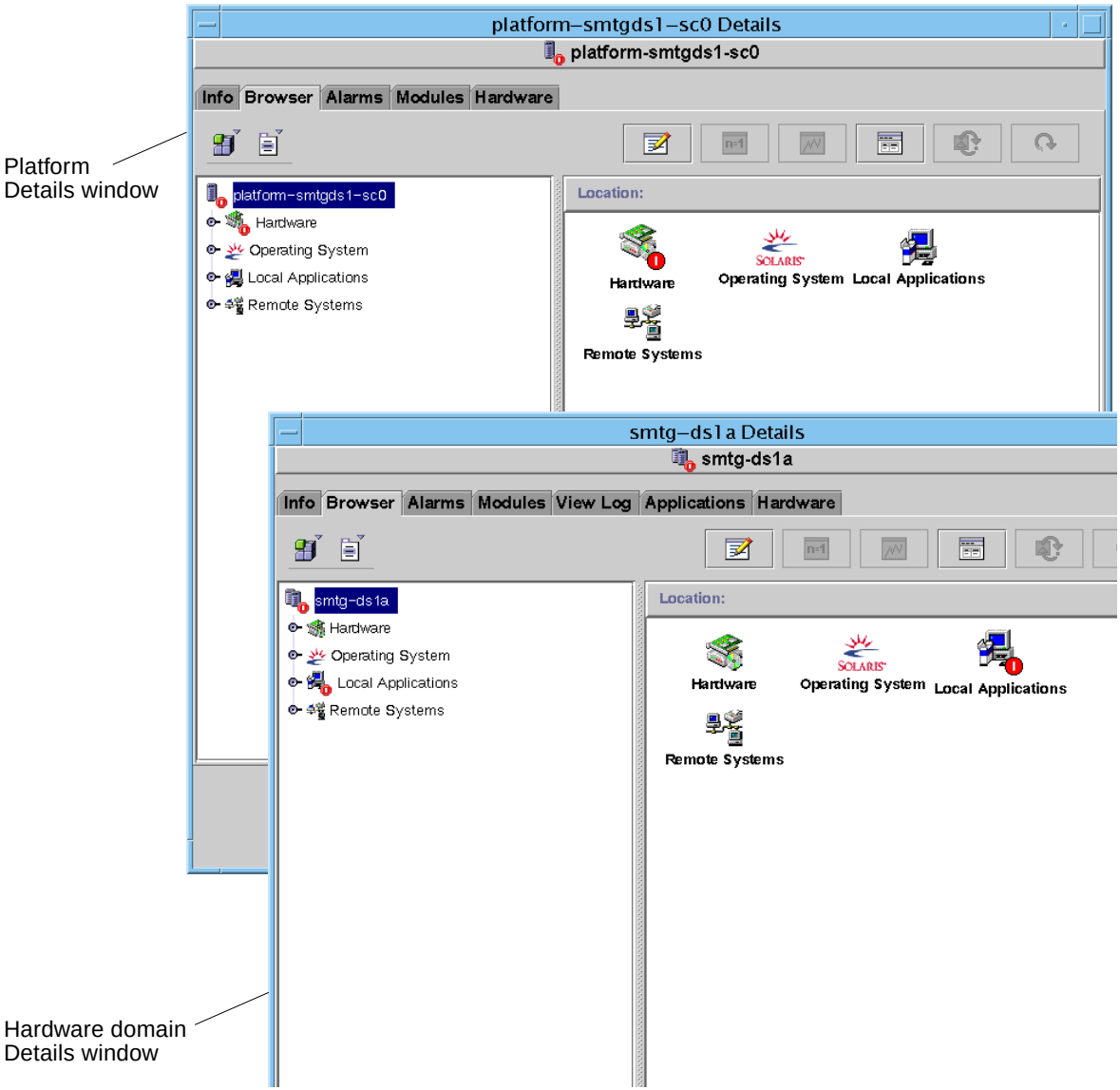

FIGURE 1-6 Details Windows for Platform (Upper) and Hardware Domain (Lower)

About the Examples Used in This Book

Many steps or operations shown in this book can be accomplished in more than one way. For the sake of brevity, only one way is shown in an operation, usually the easiest or quickest way.

For example, in the main console window (FIGURE 1-3), you can choose from four possible ways to open a Details view of Sun Fire 6800, 4810, 4800, or 3800 system:

- Click once on the Sun Fire 6800, 4810, 4800, or 3800 icon in the hierarchy view (left side of the window), then click the Tools menu in the top bar, and select Details.
- Do the same as above in the topology view (right side of the window).
- Double-click the Sun Fire 6800, 4810, 4800, or 3800 icon in the hierarchy view.
- Double-click the Sun Fire 6800, 4810, 4800, or 3800 icon in the topology view.

Similarly, there are multiple ways to expand (or uncompress) an icon. As shown in FIGURE 1-7, you can:

- Click the Expand All button (not available in some windows).
- Click the Uncompress symbol next to the icon.
- Double-click the icon in the hierarchy or topology views.

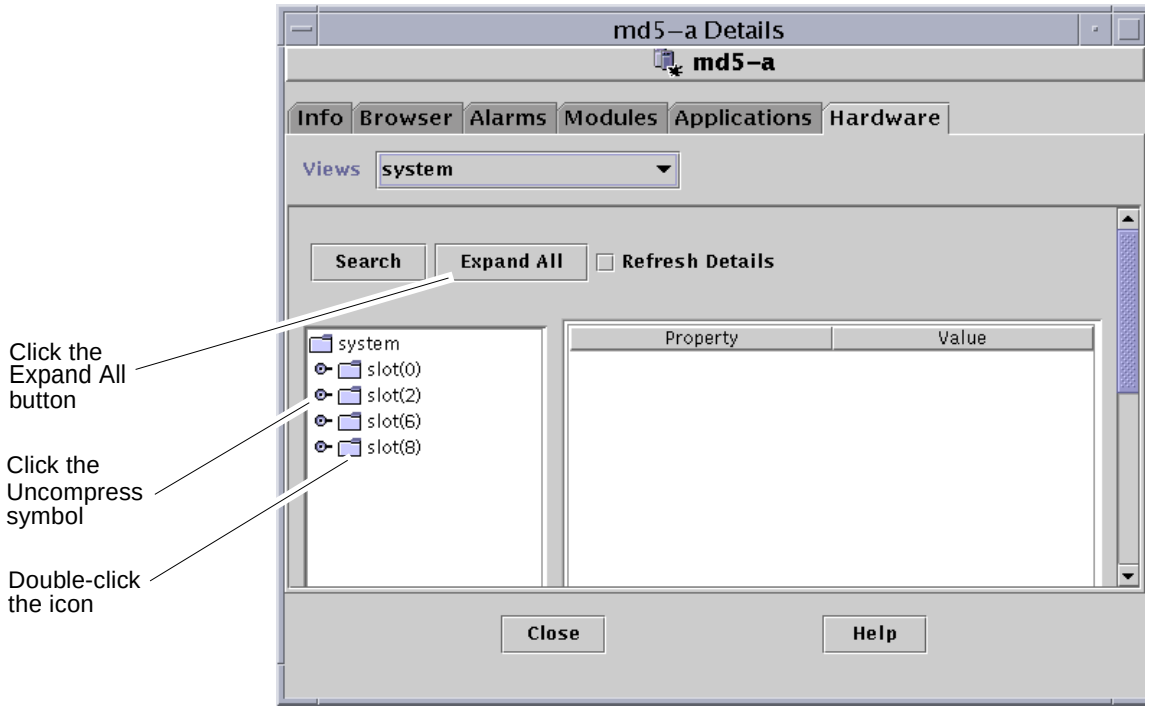

FIGURE 1-7 Choices for Expanding or Uncompressing Icons

CHAPTER 2

Installation and Setup

This chapter contains instructions for:

Upgrading From Previous Versions of Supplement Software for Sun Fire 6800, 4810, 4800, and 3800 Systems

If you have previous versions of the supplement software for Sun Fire 6800, 4810, 4800, or 3800 systems installed, remove the packages listed in TABLE 2-1 as shown in the procedure that follows the table.

TABLE 2-1 Sun Management Center Packages for Sun Fire 6800, 4810, 4800, and 3800 Systems

Name	Description
SUNWesadf	Sun Management Center agent support for dynamic reconfiguration on Sun Fire 15000, 6800, 4810, 4800, and 3800 systems
SUNWescdf	Sun Management Center console support for dynamic reconfiguration on Sun Fire 15000, 6800, 4810, 4800, and 3800 systems
SUNWessco	Sun Management Center Sun Fire support - server component
SUNWessda	Sun Management Center - Sun Fire 6800, 4810, 4800, and 3800 domain agent
SUNessdf	Sun Management Center server support for dynamic reconfiguration on Sun Fire 15000, 6800, 4810, 4800, and 3800 systems
SUNWesspa	Sun Management Center - Sun Fire platform agent
SUNWesspc	Sun Management Center console for Sun Fire platform administration
SUNWessps	Sun Management Center - Sun Fire platform support
SUNWesssd	Sun Management Center server for Sun Fire 6800, 4810, 4800, and 3800 domain
SUNWessdc	Sun Management Center Sun Fire 6800, 4810, 4800, and 3800 domain administration

▼ To Remove the Packages

1. **Check whether you have any packages listed in** TABLE 2-1 **already installed:**

```
% pkginfo package_name package_name ...
```

2. **If the** `pkginfo` **command displays information for any of the packages *without* an error message, become superuser with the** `su` **command, and remove the packages:**

```
% pkgrm package_name package_name ...
```

Installing the Software

First ensure that Sun Management Center 3.0 software is installed on your system. Refer to the *Sun Management Center 3.0 Software Installation Guide* for instructions about installing this software. A soft copy of the installation guide is on the *Sun Management Center 3.0 Platform Update 4, disk 3 of 3*.

Also ensure that any required patches are installed on your system. Refer to the *Sun Management Center 3.0 Release Notes for Sun Fire 6800, 4810, 4800, and 3800 Systems* and the *Sun Management Center 3.0 Platform Update 4 Software Release Notes* for any required patches for this release.

▼ To Install the Supplement Software

The supplement software and document are on three CDs, which include the full Sun Management Center 3.0 software package. The CDs are labelled:

- *Sun Management Center 3.0 Platform Update 4, disk 1 of 3*
- *Sun Management Center 3.0 Platform Update 4, disk 2 of 3*
- *Sun Management Center 3.0 Platform Update 4, disk 3 of 3*

1. **Install the Sun Management Center 3.0 software package on the Sun Fire 6800, 4810, 4800, or 3800 domains.**

   a. **To install only the Sun Fire supplement software, run the** `es-inst` **command in the** `sbin` **directory, in either the update CD or the directory where the Sun Management Center 3.0 software package was installed.**

      The `es-inst` script prompts you for a source directory.

b. Enter the source directory.

If you run the `es-inst` command from the installation directory and the CD is mounted on `/cdrom/cdrom0`, specify `/cdrom/cdrom0/image` as the source directory.

Refer to the *Sun Management Center 3.0 Software Installation Guide* for information about the `es-inst` command and its options.

Caution – If the general Sun Management Center 3.0 software package is already installed, and you are installing *only* the Sun Fire supplement software, enter `n` (for no) when you are prompted to begin the setup process. Entering `y` (for yes) may cause the loss of any customized setup information, such as security keys.

The correct setup procedure for the supplement software is discussed in "Setting Up the Sun Fire 6800, 4810, 4800, and 3800 Platform Administration Module" on page 18.

Note – If you are installing the full Sun Management Center 3.0 software package, you have the option of running the setup script at the end of the installation procedure. If you choose not to run the setup script at that time, you can run it later. The setup script (`es-setup`) is in *PUn_path*`/sbin`, where *n* is the number of the Platform Update, and *PUn_path* is the where the Sun Management Center software is installed. This step sets up all Sun Management Center agents, including the platform agent.

If you set up only the platform agent, you use a different setup script, `es-setup.sh`. (Note the `.sh` suffix.) See "To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module on an Agent Machine" on page 21.

2. Install the Sun Management Center 3.0 software package on any systems (agent machines) that you will use for platform administration on the Sun Fire 6800, 4810, 4800, or 3800 systems. Read the Caution and Note in Step 1.

If Sun Management Center software is already installed on the agent machines, upgrade the software to Version 3.0.

Note – The following instructions supersede any instructions in the *Sun Management Center 3.0 Software Installation Guide* that refer to "Add-on Products."

Preparing for Installation of the Localization Packages

If you have previously installed the localization packages for Sun Fire 6800, 4810, 4800, or 3800 systems (see TABLE 2-2), you need to remove these older packages manually prior to installing the newer versions included with this release. Follow the steps described in “To Remove Localization Packages” on page 16.

TABLE 2-2 Localization Packages To Be Removed

Package Name	Description
SUNWfessd SUNWfesso SUNWfessc SUNWfessp	French Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support
SUNWdessd SUNWdesso SUNWdessc SUNWdessp	German Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support
SUNWiessd SUNWiesso SUNWiessc SUNWiessp	Italian Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support
SUNWeessd SUNWeesso SUNWeessc SUNWeessp	Spanish Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support
SUNWjescd SUNWjesso SUNWjessc SUNWjessp	Japanese Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support

TABLE 2-2 Localization Packages To Be Removed *(Continued)*

Package Name	Description
SUNWkessd SUNWkesso SUNWkessc SUNWkessp	Korean Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support
SUNWcessd SUNWcesso SUNWcessc SUNWcessp	Simplified Chinese Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support
SUNWhescd SUNWhesso SUNWhessc SUNWhessp	Traditional Chinese Sun Management Center support on Sun Fire (6800, 4810, 4800, and 3800 systems) - Domain / Platform Administration, Domain, Server, and Platform Support

▼ To Remove Localization Packages

1. **Check whether you have any localization packages listed in** TABLE 2-2 **already installed:**

```
% pkginfo package_name package_name ...
```

2. **If the** `pkginfo` **command displays information for any of the localization packages *without* an error message, become superuser with the** `su` **command, and remove the package(s):**

```
# pkgrm package_name package_name ...
```

.

Installing Localized Versions of Sun Management Center Add-on Packages From the CD

To install the localized packages, perform the following steps *after* the installation of the English Sun Management Center 3.0 software and add-on product packages is complete.

▼ To Install Localized Packages

1. **Insert the Platform Update 4 CD (2 of 3) in the CD-ROM drive.**
2. **Open a command window and (if you are not already superuser) become superuser by using the** `su` **command.**
3. **Change to the CD-ROM directory and type the following command:**

```
# cd /cdrom/sun_management_center_3_0
```

4. **From the** `localization` **directory, type the following command to run the installation script:**

```
# ./es-inst-l10n
```

Setting Up the Sun Fire 6800, 4810, 4800, and 3800 Platform Administration Module

The setup has three parts:

- System controller setup — See “Setting Up SNMP on the System Controller” on page 18.
- Agent layer setup — See “To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module on an Agent Machine” on page 21.
- Server layer setup — See “To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module Server Layer Only on the Server” on page 22.

Setting Up SNMP on the System Controller

Setting up the Simple Network Management Protocol (SNMP) on the system controller involves configuring SNMP on the platform and the domain. This section contains both procedures, and you need to do both:

- Configuring SNMP on the platform
- Configuring SNMP on the domain

▼ To Configure SNMP on the Platform

Note – Do not set up multiple Platform Administration Agents to manage the same Sun Fire 6800, 4810, 4800, or 3800 system controller. Doing so causes the system to run slowly or even hang.

---

1. **Access the system controller by using the** `telnet(1)` **command as shown in** CODE EXAMPLE 2-1**.**

CODE EXAMPLE 2-1 Accessing the System Controller With `telnet` and Entering the Platform Shell

```
% telnet schostname
System Controller schostname:SC>

Type 0 for Platform Shell

Type 1 for domain A
Type 2 for domain B
Type 3 for domain C
Type 4 for domain D

Input: 0
schostname:SC>
```

where *schostname* is the system controller host name.

2. **At the system controller main menu, type** `0` **(or alternatively** `P` **or** `p`**) to enter the platform shell as shown in** CODE EXAMPLE 2-1**.**

The platform shell prompt, *schostname*`:SC`, is displayed.

3. **Type** `setupplatform -p snmp`**, and answer the questions as shown in** CODE EXAMPLE 2-2**.**

CODE EXAMPLE 2-2 Configuring an SNMP Agent on a Platform

```
schostname:SC> setupplatform -p snmp
SNMP
----
Platform Description [description]: your_description
Platform Contact [contactname]: contact_name
Platform Location [location]: your_platform_location
Enable SNMP Agent? [no]: yes
Trap Hosts [hostname]: server_name
Public Community String [string]: your_string1
Private Community String [string]: your_string2
```

For Trap Hosts, enter the host name of the Sun Management Center server from which you will perform platform administration.

4. **Press and hold the CTRL key while pressing the] key, to get to the** `telnet>` **prompt.**

5. **Type** `q` **to exit from** `telnet`**.**

▼ To Configure SNMP on a Domain

1. **Access the system controller by typing the** `telnet` **command as shown in** CODE EXAMPLE 2-3**.**

CODE EXAMPLE 2-3 Accessing the System Controller With `telnet` and Entering the Domain Shell

```
% telnet schostname
System Controller schostname:SC>

Type 0 for Platform Shell

Type 1 for domain A
Type 2 for domain B
Type 3 for domain C
Type 4 for domain D

Input: 1
schostname:A>
```

where *schostname* is the system controller host name. In CODE EXAMPLE 2-3, domain A is shown as an example.

2. **Enter a domain. Type** `1`**,** `2`**,** `3`**, or** `4` **(or alternatively** `a`**,** `b`**,** `c`**,** `d`**, or** `A`**,** `B`**,** `C`**,** `D`**) to enter the proper domain shell as shown in** CODE EXAMPLE 2-3**.**

   The domain shell prompt, *schostname*`:`*X*, is displayed, where *X* is the domain that you have selected.

3. **If the domain is active and the domain keyswitch is set to on, diag, or secure (you are running the Solaris operating environment, you are in OpenBoot PROM mode, or you are running POST), perform the following steps**:

   a. **Press and hold the CTRL key while pressing the] key, to get to the** `telnet>` **prompt.**

   b. **At the** `telnet>` **prompt type** `send break`**.**

   CODE EXAMPLE 2-3 shows a connection to domain A.

4. **Type** `setupdomain -p snmp`**, and answer the questions as shown in** CODE EXAMPLE 2-4**.**

CODE EXAMPLE 2-4 Configuring an SNMP Agent on a Domain

```
schostname:A> setupdomain -p snmp
SNMP
----
Domain Description [description]: your_description
Domain Contact [contactname]: contact_name
Trap Hosts [hostname]: server_name
Public Community String [string1]: your_string1
Private Community String [string2]: your_string2
```

For Trap Hosts, enter the host name of the Sun Management Center server from which you will perform platform administration.

For Public and Private Community Strings, enter a different string for each domain and platform.

5. **Type** `disconnect` **to exit the connection to the domain shell.**
6. **Repeat Step 2 through Step 5 for each additional domain, if any.**
7. **Press and hold the CTRL key while pressing the] key, to get to the** `telnet>` **prompt.**
8. **Type** `q` **to exit from** `telnet`**.**

Setting Up the Agent and Server Layers

This section describes how to set up the agent and server layers.

▼ To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module on an Agent Machine

If the agent machine has both server and agent layers, this procedure automatically sets up both layers.

1. **Become superuser by using the** `su` **command.**

2. **Go to the** *PUn_path*`/addons/SunFirePltAdmin/sbin` **directory, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/addons/SunFirePltAdmin/sbin`.

3. **Run the** `es-setup.sh` **script:**

   To set up this module for the default platform agent instance, type:

```
# ./es-setup.sh
```

   The script asks for this information:

   - The IP Address of the Sun Fire 6800, 4810, 4800, or 3800 system controller.
   - The Write community strings for the system controller and all the domains. If the script cannot get the domain address from the system controller, then it asks for the IP address of all the domains.
   - The port number of the Sun Management Center agents on all the domains.

Tip – This script can be run again to change the information provided in the previous setup.

The Sun Management Center 3.0 software ships with one platform agent named "platform."

When the module has been set up, you can start the appropriate agent. For more on how to start, see "Starting Sun Management Center Components" on page 26.

▼ To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module Server Layer Only on the Server

This procedure sets up *only* the server layer. To set up the server, agent, and console layers on a server, see "To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module on an Agent Machine" on page 21.

Note – If you chose to set up only the server layer (without a console or agent layer), user groups are not automatically added to the `/etc/group` file unless you use the `-S` option, as shown in this procedure. For a list of user groups, see TABLE 2-3.

---

1. **Become superuser by using the** `su` **command.**
2. **Go to the** *PUn_path*`/addons/SunFirePltAdmin/sbin` **directory, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/addons/SunFirePltAdmin/sbin`.
3. **Run the** `es-setup.sh` **script with the** `-S` **option**:

```
# ./es-setup.sh -S
```

When the module has been set up, you can start the appropriate agent. The Sun Management Center 3.0 software ships with one platform agent named “platform. For more on how to start, see “Starting Sun Management Center Components” on page 26.

Creating and Setting Up a Sun Fire 6800, 4810, 4800, or 3800 Platform Agent Instance

The default platform administration module can monitor one Sun Fire 6800, 4810, 4800, or 3800 system. To monitor more than one Sun Fire 6800, 4810, 4800, or 3800 system, you must create one platform agent instance for each additional Sun Fire 6800, 4810, 4800, or 3800 system.

▼ To Create a Platform Agent Instance

1. **Become superuser by using the** `su` **command.**
2. **Go to the directory** *PUn_path*`/sbin`**, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/sbin`.

3. **Run the** `es-platform` **script:**

```
# ./es-platform -a instanceName
```

where *instanceName* is the name of a new platform agent instance.

This script asks for the port number for the new platform agent and the security seed. If you used a seed other than the default when setting up the Sun Management server, provide the same seed for this agent.

▼ To Set Up a Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module for a New Platform Agent Instance

1. **Become superuser by using the** `su` **command.**
2. **Go to the directory** *PUn_path*`/addons/SunFirePltAdmin/sbin`**, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/addons/SunFirePltAdmin/sbin`.

3. **Type:**

```
# ./es-setup.sh -I instanceName
```

where *instanceName* is the name of a new platform agent instance.

The `es-setup.sh` script asks for this information:

- IP Address of the Sun Fire 6800, 4810, 4800, or 3800 system controller.
- Write community strings for the system controller and all the domains. If the script cannot get the domain address from the system controller, then it asks for the IP address of all the domains.
- Port number of the Sun Management Center agents on all the domains.

Note – This script can be run again to change the information provided in the previous setup.

When the module has been set up, you can start the appropriate agent. For more on how to start, see “Starting Sun Management Center Components” on page 26.

▼ To Assign Users to Administrator and Operator Groups

If your user name is listed in the `esusers` file, you can log onto the Sun Fire 6800, 4810, 4800, or 3800 system, where you have read-only access for domain administration agents. In order to read and/or write platform or domain information under the platform agent, your user name must also be listed in the `group` file on the server.

The setup procedure creates up to 10 groups on the Sun Fire 6800, 4810, 4800, or 3800 server machine. These groups are:

TABLE 2-3 User Groups

Group Name	User Category	Type of Access
`spltadm`	Administrator	Platform
`sdaadm`	Administrator	Domain A
`sdbadm`	Administrator	Domain B
`sdcadm`	Administrator	Domain C
`sddadm`	Administrator	Domain D
`spltop`	Operator	Platform
`sdaop`	Operator	Domain A
`sdbop`	Operator	Domain B
`sdcop`	Operator	Domain C
`sddop`	Operator	Domain D

1. **Become superuser by using the `su` command.**
2. **Add each user to the appropriate group in the file `/etc/group`.**
   - Add Sun Fire 6800, 4810, 4800, or 3800 *platform* administrators to `spltadm`, to allow them to administer the platform through the platform view of a platform agent.
   - Add Sun Fire 6800, 4810, 4800, or 3800 *domain* administrators to the appropriate domain administrator group. For example, adding the name of a domain administrator to `sdaadm` allows that domain administrator to administer domain A through the platform agent.
3. **Add each user to the file `/var/opt/SUNWsymon/cfg/esusers`.**

Starting Sun Management Center Components

The `es-start` script has three options:

- The `-A` option starts all Sun Management Center components, except the console.
- The `-l` option starts the default platform agent.
- The `-y` option starts only the specified agent.

▼ To Start the Default Platform Agent

1. **Become superuser by using the `su` command.**
2. **Go to the *PUn_path*`/sbin` directory, where *n* is the number of the Platform Update, and *PUn_path* is the directory where the Sun Management Center software is installed.**
3. **Start the default platform agent by typing:**

```
# ./es-start -l
```

▼ To Start a Platform Agent Instance

1. **Become superuser by using the `su` command.**
2. **Go to the *PUn_path*`/sbin` directory, where *n* is the number of the Platform Update, and *PUn_path* is the directory where the Sun Management Center software is installed.**
3. **Start a specific platform agent instance by typing:**

```
# ./es-start -y instanceName
```

For example, if P1 is the name of the platform agent instance, type:

```
# ./es-start -y P1
```

▼ To Start All Sun Management Center Components

1. **Become superuser by using the `su` command.**
2. **Go to the *PUn_path*`/sbin` directory, where *n* is the number of the Platform Update, and *PUn_path* is the directory where the Sun Management Center software is installed.**
3. **Start all Sun Management Center components, except the console, by typing:**

```
# ./es-start -A
```

Stopping Sun Management Center Components

The `es-stop` script has three options:

- The `-A` option stops all Sun Management Center components, except the console.
- The `-l` option stops the default platform agent.
- The `-y` option stops only the specified agent.

▼ To Stop the Default Platform Agent

1. **Become superuser by using the `su` command.**
2. **Go to the *PUn_path*`/sbin` directory, where *n* is the number of the Platform Update, and *PUn_path* is the directory where the Sun Management Center software is installed.**
3. **Stop the default platform agent by typing:**

```
# ./es-stop -l
```

▼ To Stop a Platform Agent Instance

1. **Become superuser by using the `su` command.**

2. **Go to the *PUn_path*/sbin directory, where *n* is the number of the Platform Update, and *PUn_path* is the directory where the Sun Management Center software is installed.**

3. **Stop a specific platform agent instance by typing:**

```
# ./es-stop -y instanceName
```

For example, if P1 is the name of the platform agent instance, type:

```
# ./es-stop -y P1
```

▼ To Stop All Sun Management Center Components

1. **Become superuser by using the su command.**

2. **Go to the *PUn_path*/sbin directory, where where *n* is the number of the Platform Update, and *PUn_path* is the directory where the Sun Management Center software is installed.**

3. **Stop all Sun Management Center components, except the console, by typing:**

```
# ./es-stop -A
```

Undoing Setups and Deleting Platform Agents

If you no longer need to monitor a Sun Fire 6800, 4810, 4800, or 3800 system, you can save system resources by undoing the setup for the corresponding platform agent or instance, and then deleting it.

▼ To Undo the Setup of the Sun Fire 6800, 4810, 4800, or 3800 Default Platform Administration Module

1. **Go to the** *PUn_path*`/addons/SunFirePltAdmin/sbin` **directory, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/addons/SunFirePltAdmin/sbin`.

2. **Undo the setup for the default platform agent by typing:**

```
# ./es-setup.sh -u
```

▼ To Undo the Setup of a Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Instance

1. **Become superuser by using the** `su` **command.**
2. **Go to the** *PUn_path*`/addons/SunFirePltAdmin/sbin` **directory, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where the Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/addons/SunFirePltAdmin/sbin`.

3. **Undo the setup for a specific platform agent instance by typing:**

```
# ./es-setup.sh -u -I instanceName
```

Note – Undoing this setup stops the Sun Management Center agent. Restart the agent.

▼ To Delete a Platform Agent

1. **Become superuser by using the** `su` **command.**

2. **Go to the directory** *PUn_path*`/sbin`**, where** *n* **is the number of the Platform Update, and** *PUn_path* **is the directory where Sun Management Center software is installed.**

   For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, go to the directory `/opt/SUNWsymon/sbin`.

3. **Delete the platform agent instance by typing:**

```
# ./es-platform -d instanceName
```

Monitoring Capacity on Demand

This section describes how to set up monitoring for the Capacity on Demand (COD) option.

▼ To Set Up Monitoring for the COD Option

Note – No specific configuration is required for COD.

To monitor the Capacity on Demand option, you must follow these requirements:

1. **Connect the system controller to the system using the Ethernet port (network connection).**
2. **Make sure that the system controller is available to the Sun Management Center workstation for management.**
3. **Run the Sun Management Center server and agents without interruption, and ensure that they are always able to communicate with the system controller.**
4. **Make sure the Sun Management Center workstation can send email back to Sun Microsystems, Inc.**

   For COD monitoring purposes, the COD software communicates with the system controller and builds and maintains a COD log file, which must be emailed to Sun.

Setting Up Domains

The instructions in this document deal with two types of domains:

- Sun Management Center administrative domain — A collection of one or more host systems. For example, an administrative domain can include all the servers and workstations in a computer lab.
- Hardware domain — A subset of components in a Sun Fire 6800, 4810, 4800, or 3800 platform. For example, a platform with multiple CPU boards and multiple I/O boards can be divided into multiple domains, each with one or more CPU boards and one or more network connections. Each hardware domain runs a separate copy of the Solaris operating environment.

▼ To Create a Hardware Domain

The Sun Fire 6800, 4810, 4800, and 3800 system comes from the factory configured with one hardware domain, domain A. The system administrator has the option of creating additional hardware domains. A Sun Fire 6800 system can have up to four hardware domains. Sun Fire 4810, 4800, and 3800 systems can have up to two hardware domains.

- **To create additional hardware domains on a Sun Fire 6800, 4810, 4800, or 3800 system, refer to the** *Sun Fire 6800/4810/4800/3800 Systems Platform Administration Manual***.**

▼ To Create Administrative Domains

- **To create and populate an administrative domain, refer to the** *Sun Management Center 3.0 Software User's Guide***.**

CHAPTER 3

Platform and Domain Administration Using the Platform Agent

This chapter describes Platform Administration procedures and features for Sun Fire 6800, 4810, 4800, and 3800 systems.

The following topics are discussed:

Sun Fire 6800, 4810, 4800, and 3800 Platform Administration Module

For a Sun Fire 6800, 4810, 4800, or 3800 system, platform administration procedures use the Sun Fire 6800, 4810, 4800, and 3800 Platform Administration module. This module is loaded under the Hardware category in the Browser tab of the Object Details window.

Only users with the correct access privileges can see the data in the corresponding views. For example, a user with access privileges for Platform and Domain A can view data only for Platform and Domain A, but not Domain B, Domain C, or Domain D.

FIGURE 3-1 shows module hierarchy after the user accesses the Platform Administration module.

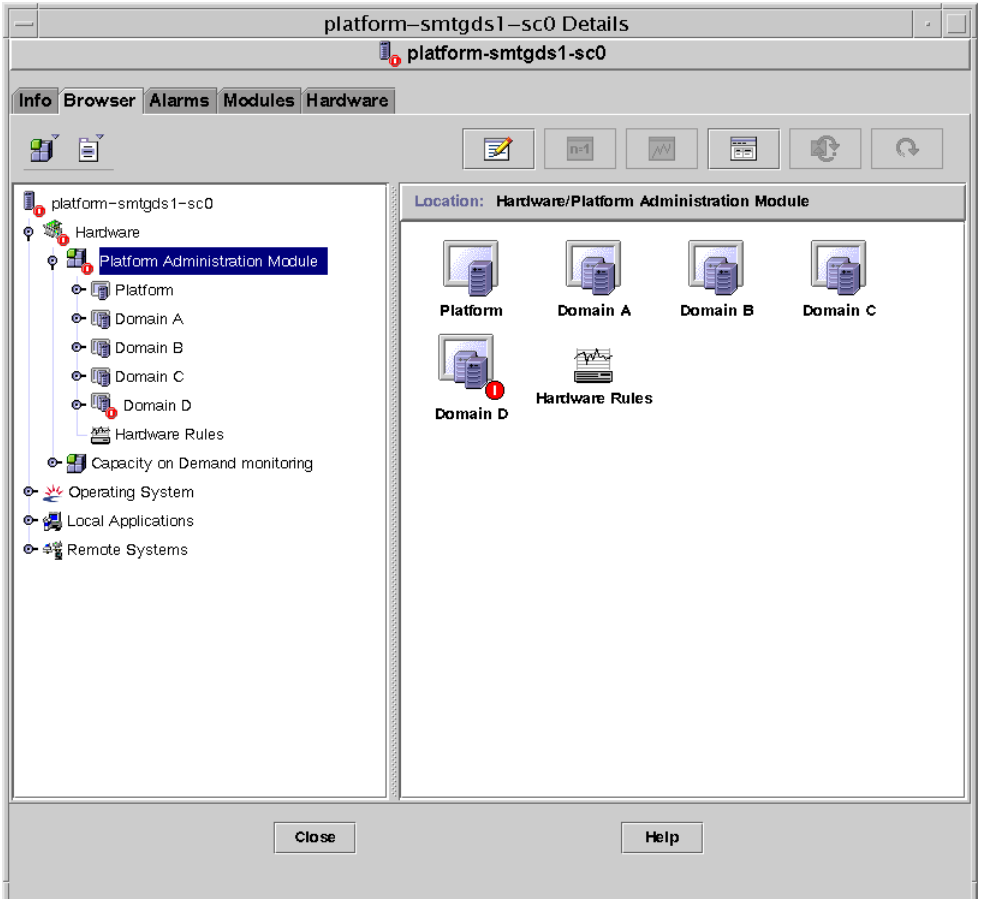

FIGURE 3-1 Hardware Platform Administration Module

▼ To Create a Sun Fire 6800, 4810, 4800, or 3800 Object

1. **In the main console window menu bar select Edit ➤ Create an Object....**

   The Create Topology Object window is displayed. By default, the window opens to the Node tab (FIGURE 3-2).

Note – In the examples that follow, the figures show only a Sun Fire 6800, 4810, 4800, or 3800 object. In an actual situation, other types of objects may be present.

   FIGURE 3-3 displays the Composite tab, listing all platforms.

2. **Click on the object class, Node or Composite, and then select an object type from the Object list.**

   An icon corresponding to the object selected is displayed next to the object list.

3. **Enter the necessary inputs.**

4. **Complete this procedure with one of the following actions**:

   - Click OK to accept the changes you have made and close this window.
   - Click Apply to apply your changes without closing this window.
   - Click Help to display the help page for this dialog in the help browser.
   - Click Cancel to cancel your request.

   If an error occurs, an error message is displayed in the status message field.

Note – Clicking the Help button displays the help page corresponding to object creation in Sun Management Center software.

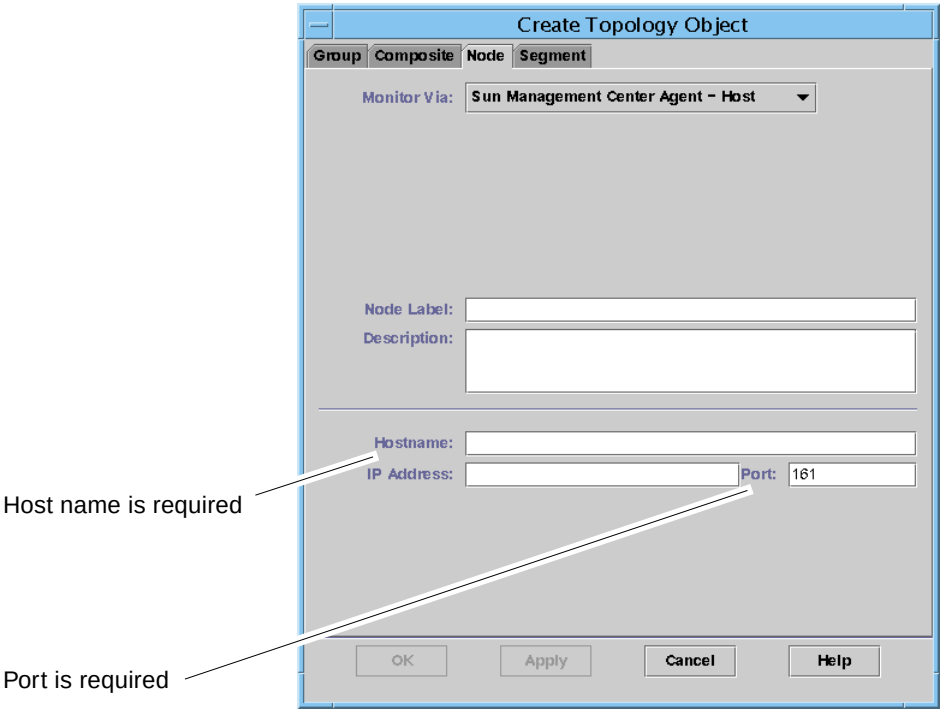

FIGURE 3-2 Node Tab in Create Topology Object Window

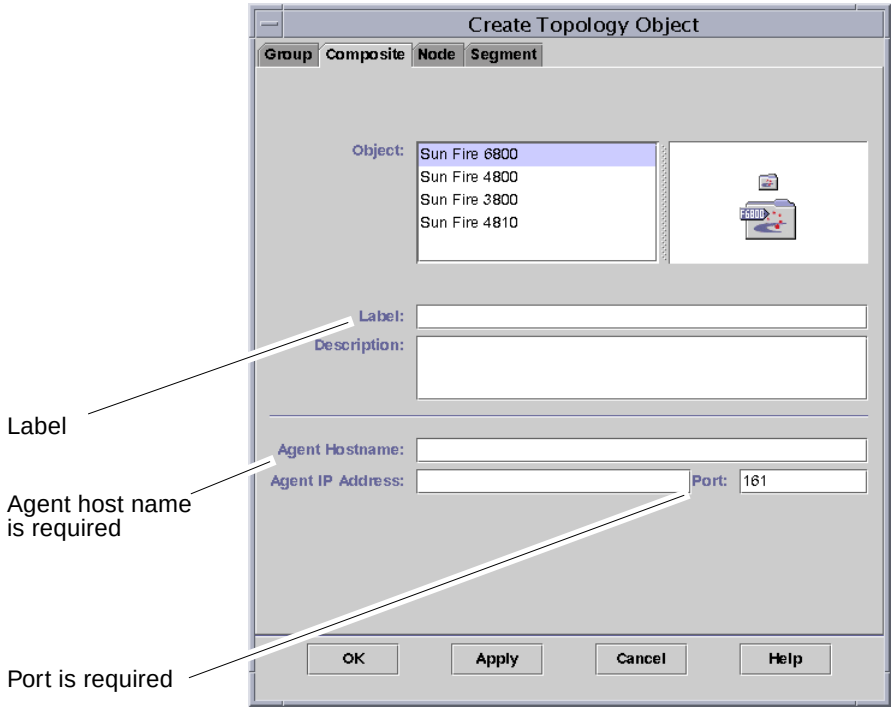

FIGURE 3-3 Composite Tab With Sun Fire 6800, 4810, 4800, and 3800 Systems

Accessing the Domain Using the Platform Agent for the Domain Administrator

A domain administrator can view all the tables for the corresponding domain node that the administrator administers. For example, the domain administrator for Domain A can view all tables under Domain A (FIGURE 3-4).

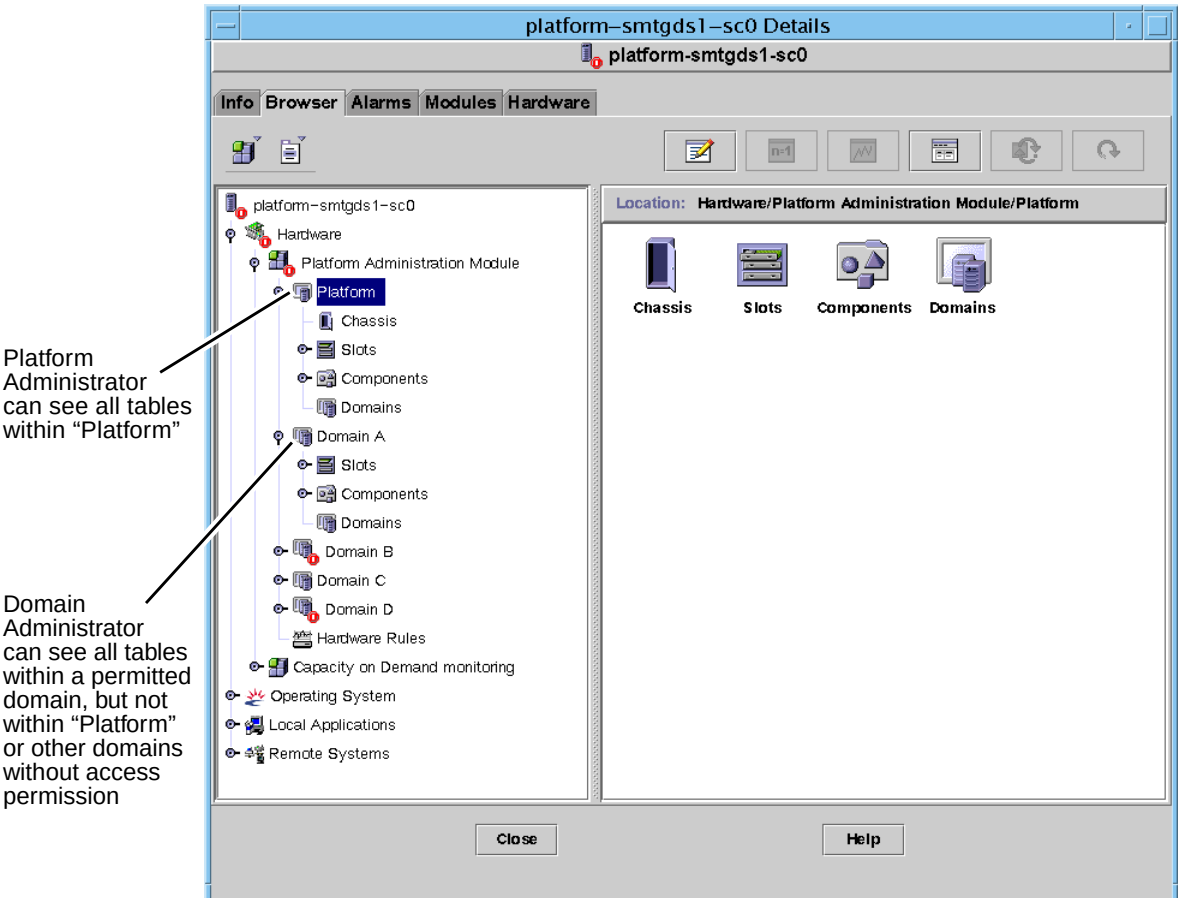

FIGURE 3-4 Details Window for a Sun Fire 6800, 4810, 4800, or 3800 Platform Object

When you right-click on an entry in a data table, a set of actions is displayed in a pop-up menu (FIGURE 3-5). In the menu, the list of actions varies, depending on the column values in the row that you select and on the type of entry.

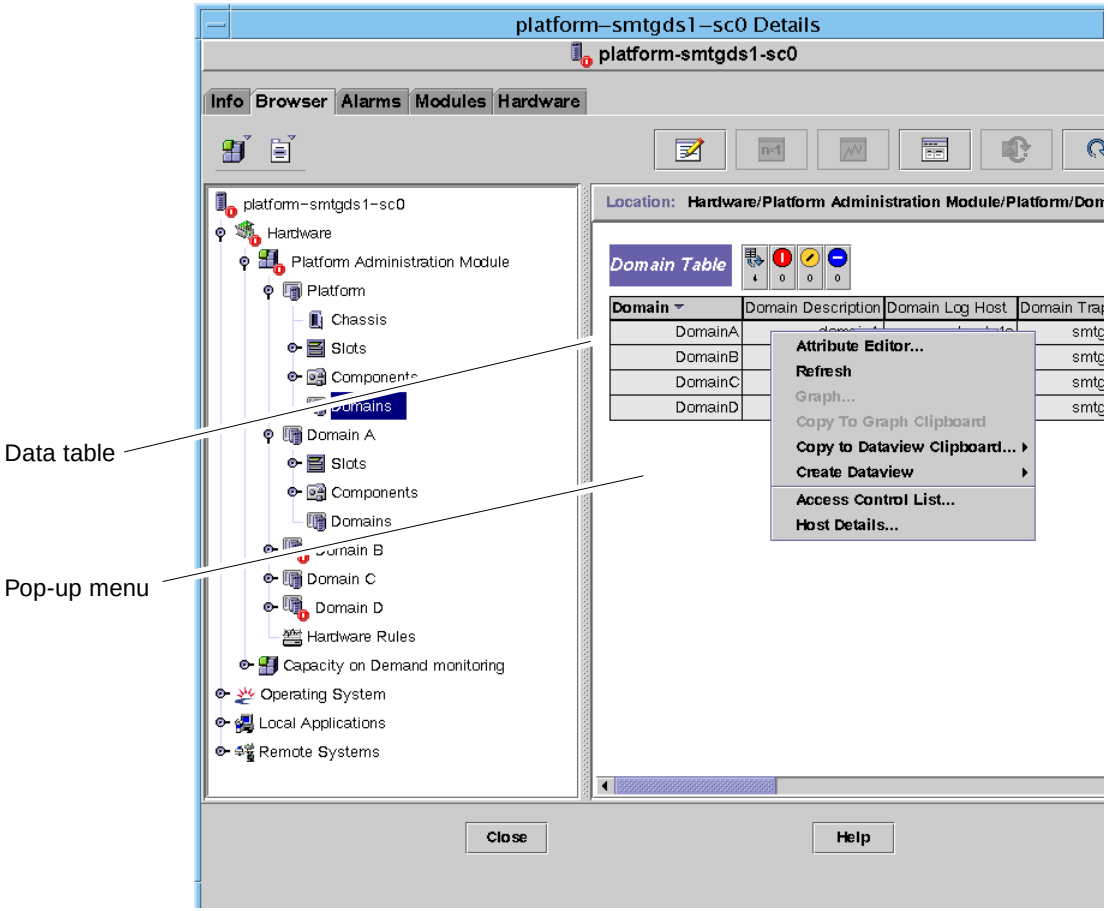

FIGURE 3-5 Browser Window Domains Table

TABLE 3-1 lists the types of entries that can appear in the menus, and the type of actions that can be taken.

TABLE 3-1 Table Action Menu Items for Domain View

Table	Action
Slots and Components tables that have FRU Index entries	View FRU information
Domains	View and manage Keyswitch, Setup Loghost, and Host details

TABLE 3-2 lists some common actions and their corresponding functions.

TABLE 3-2 Table Actions

Action	Function
Keyswitch...	Enables you to change the virtual keyswitch position of a domain. FIGURE 3-6 shows the dialog that is displayed when you select Keyswitch...
Setup Loghosts...	Enables you to set up the SNMP Trap and Syslog hosts for a domain. FIGURE 3-7 shows the dialog that is displayed when you select Setup Loghosts...
FRU Information	Enables you to see the FRU information for the selected component. FIGURE 3-8 shows the dialog that is displayed.
Table sorting	Enables you to sort the domain table according to different criteria. When you click on the domain table column headers, the table is sorted according to that criteria. For example, clicking the Status column, sorts the table Status. You can toggle the sort order, ascending and descending, by clicking on the same column header again. The current sorted column header is displayed in bold face and the current sort order is displayed as a down or up arrow. By default the domain table is in ascending order by domain IDs.
Host Details	Displays the host Details window of the corresponding domain.

The following sections explain how to implement these actions.

▼ To Change a Domain Keyswitch Setting

The Keyswitch menu item is available for the individual domains (Domain A, B, C, or D).

1. **Right-click in the data table to display a pop-up menu.**

2. **Select Keyswitch...**

   In the Hierarchy view, the path to this command is Hardware ➤ Platform Administration Module ➤ Domain *X* ➤ Domains ➤ *data table menu* ➤ Keyswitch....

   The Keyswitch dialog (FIGURE 3-6) is displayed. This dialog shows the current position of the virtual keyswitch.

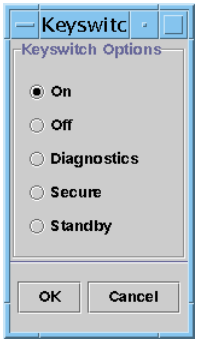

FIGURE 3-6 Keyswitch Dialog Window

If the system controller is networked, you can change the keyswitch position to one of five modes. If the system controller is not networked, you cannot select an option.

The five modes are.

- **On**

  If the domain is already powered on, clicking the On button only changes the position on the virtual keyswitch.

- **Off**

  If the domain is running the Solaris operating environment, a confirmation dialog window is displayed when you select Off. Selecting this mode changes the board state of all the boards in the selected domain to Off and places the boards in low-power mode, allowing them to be physically removed from the chassis.

- **Diagnostic**

  If the domain is already powered on, Diagnostic only changes the position on the virtual keyswitch.

- **Secure**

  If the domain is already powered on, Secure only changes the position on the virtual keyswitch.

- **Standby**

  If the domain is running the Solaris operating environment, a confirmation dialog is displayed when you select Standby. Selecting this mode changes the state of all boards in the selected domain to Standby, but does not put the boards in the low-power mode.

3. **Complete this procedure with one of the following actions:**
   - Click OK to accept the changes you made and close this window.
   - Click Cancel to cancel your request.

   If an error occurs, it is displayed in the status message field of the dialog.

▼ To Set Domain Loghosts

1. **Right-click in the data table to display a pop-up menu.**
2. **Select Setup Loghosts...**

   In the Hierarchy view, the paths to this command are:

   - Select Hardware ➤ Platform Administration Module ➤ Domain *X* ➤ Domains ➤ *data table menu* ➤ Setup Loghosts....
   - Select Hardware ➤ Platform Administration Module ➤ Platform ➤ Chassis ➤ *data table menu* ➤ Setup Loghosts....

   The Setup Loghosts dialog (FIGURE 3-7) is displayed.

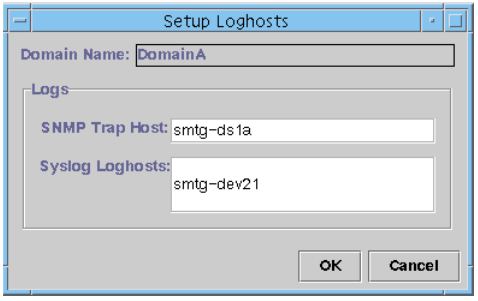

FIGURE 3-7 Setup Loghosts Dialog

3. **You can change the values for SNMP Trap Hosts and Syslog Loghosts.**

   You can specify multiple loghosts by entering one IP address or node name per line.

4. **Complete this procedure with one of the following actions:**
   - Click OK to accept the changes you made and close this window.
   - Click Cancel to cancel your request.

   If an error occurs, an error message is displayed in the status message field.

▼ To Display FRU Information

This dialog displays FRU information for a specific component.

No information can be changed. The dialog is read-only.

1. **Right-click in the data table to display a pop-up menu.**
2. **Select FRU Information...**

   In the Hierarchy view, the path is Select Hardware ➤ Platform Administration Module ➤ Platform (or Domain *X)* ➤ Slots (or Components) ➤ *category* ➤ *data table menu* ➤ FRU Information....

   The FRU Information dialog (FIGURE 3-8) is displayed.
3. **Click OK to close this window.**

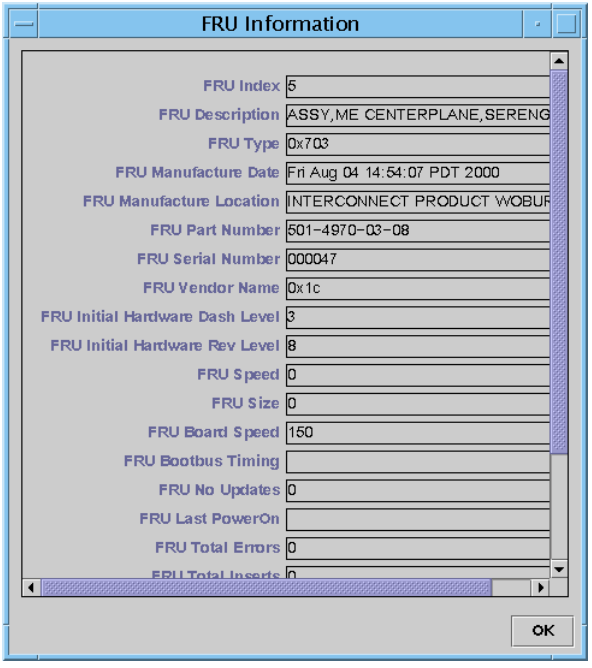

FIGURE 3-8 FRU Information Dialog

▼ To Display Host Details

1. **Right-click in the data table to display a pop-up menu.**

2. **Select Host Details...**

   In the Hierarchy view, the path is Select Hardware ➤ Platform Administration Module ➤ Platform (or Domain *X*) ➤ Domains ➤ *data table menu* ➤ Host Details....

   The Host Details window of the corresponding hardware domain is displayed.

3. **Click OK to close this window.**

Accessing the Platform Using the Platform Agent for the Platform Administrator

The platform administrator can view all tables under Platform Administration Module ➤ Platform.

When you right-click an entry in the table, a set of actions is displayed in a pop-up menu. The list of actions varies, depending on the column values in the row that you selected and the type of entity.

TABLE 3-3 lists the various entries and actions that you can take.

TABLE 3-3 Table Action Menu Items for the Platform View

Table	Action
Chassis	• Setup Loghosts • FRU information
Slots ➤ Empty Slots	• None, if board is unavailable • Assign or unassign, if board is available
Slots ➤ CPU Boards	• Test • FRU information • Power on/off • Assign or unassign, if board is available
Slots ➤ I/O Boards	• FRU information • Power on/off • Assign or unassign, if board is available
Slots ➤ L2 Repeater	• FRU information
Slots ➤ Fan	• Power on/off • FRU information

TABLE 3-3 Table Action Menu Items for the Platform View *(Continued)*

Table	Action
Slots ➤ Power Supply	• Power on/off • FRU information
Slots ➤ SC	• SC Network Setup • FRU information
Domains	• ACL • Host Details
Components ➤ all tables	None

TABLE 3-4 lists all of the available actions and their corresponding functions.

TABLE 3-4 Table Actions Menu

Action	Function
Assign.../Unassign	Enables you to Assign or Unassign a board. FIGURE 3-9 shows the dialog that is displayed when you select the Assign... menu item. FIGURE 3-10 shows the dialog that is displayed when you select the Unassign menu item. Depending on the board status, the Assign... or Unassign menu item is available. If the board is already in the assign state, the Assign... action menu item is not available. If the board is in the active state, this option is not available.
Power On/Power Off	Enables you to power the board on and off. FIGURE 3-11 shows the confirmation dialog that is displayed to confirm this action. If the board is in the active state, this option is not available.
Test...	Enables you to test a board. FIGURE 3-12 shows the confirmation dialog that is displayed to confirm this action. If the board is in the active state, this option is not available.
Host Details	The host Details window of the corresponding domain is displayed.
System Controller Setup...	Enables you to view/modify SC setup information. FIGURE 3-13 shows the dialog that is displayed when you select System Controller Setup...
Setup Loghosts...	Enables you to set up the loghosts and trap hosts for a chassis. FIGURE 3-14 shows the dialog that is displayed when you select Setup Loghosts...

TABLE 3-4 Table Actions Menu *(Continued)*

Action	Function
FRU Information...	Enables you to see the FRU information of the selected component. FIGURE 3-15 shows the dialog that is displayed when you select FRU Information...
ACL...	Enables you to manipulate the Access Control List (ACL). FIGURE 3-16 shows the dialog that is displayed.
Table Sorting	Enables you to sort the table rows. This action only affects table columns. Selecting a slot table column header sorts the rows in ascending order of that column. For example, selecting the Power column sorts the table with the powered-off boards at the top and powered-on boards at the bottom. You can toggle the sorting order, ascending and descending, by clicking on the same column header again. The header of the current sorted column is bold face. A down or an up arrow indicate the current sort order of the column. By default, the slot table is ordered in ascending order by slot numbers.

If an error occurs, an error message is displayed in the status message field of the Object Details Browser window.

▼ To Assign Available Boards

1. **Right-click a board entry in the data table to display a pop-up menu.**
2. **Select Assign.**

Note – A board can be assigned to only one domain.

The Assign dialog (FIGURE 3-9) is displayed.

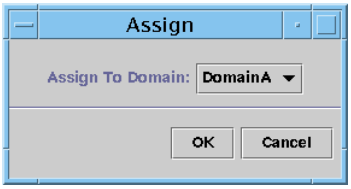

FIGURE 3-9 Assign Dialog

3. **Right-click the Assign To Domain button to see a pull-down list of all domains.**
4. **Select a domain from the domain list, then click the OK button to assign the selected board to that domain.**
5. **Complete this procedure with one of the following actions**:
   - Click OK to assign the selected board to the domain and close this window.
   - Click Cancel to cancel your request.

   If this action fails, an error message is displayed in the status message field of the Assign dialog.

▼ To Unassign Boards

1. **Right-click a board entry in the data table to display a pop-up menu.**
2. **Select Unassign.**

   The Unassign dialog (FIGURE 3-10) is displayed.

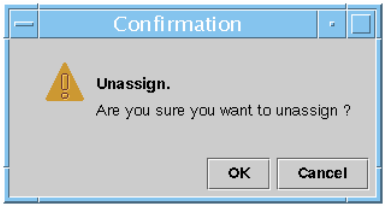

FIGURE 3-10 Unassign Dialog

3. **Complete this procedure with one of the following actions:**
   - Click OK to unassign the selected board from the domain and close this window.
   - Click Cancel to cancel your request.

   If this action fails, an error message is displayed in the status message field of the Unassign dialog.

▼ To Power On or Off Boards

1. **Right-click a board entry in the data table to display a pop-up menu.**

   The board power status is either Powered On or Powered Off, and can be toggled from one state to the other.

2. **Select Power Off (or Power On).**

   The appropriate dialog is displayed. FIGURE 3-11 shows the Power Off dialog.

FIGURE 3-11 Power Off Dialog

3. **Complete this procedure with one of the following actions:**
   - Click OK to power off (or power on) the selected board for the domain and close this window.
   - Click Cancel to cancel your request.

   If this action fails, an error message is displayed in the status message field of the Power Off (or Power On) dialog.

▼ To Test a Board

1. **Right-click in the data table to display a pop-up menu.**
2. **Select Test.**

   The Test dialog is displayed. FIGURE 3-12 shows the Test Board dialog for a selected board and a message about the test time.

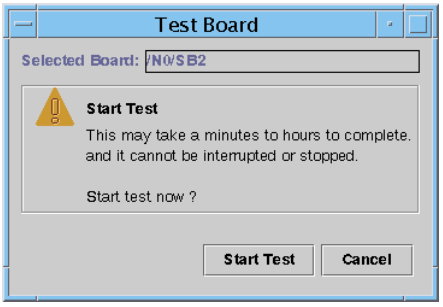

FIGURE 3-12 Test Board Dialog

Note – This dialog is displayed only for boards that are assigned but disconnected or for boards that are available.

---

3. **Click the Start button to start a test, or click the Cancel button to close the dialog without taking any action**.

   The test status is displayed in the status message field at the bottom of the dialog. The test may take a long time. While the test is in progress, the dialog shows a busy cursor.

   If the test action fails, an error message is displayed in the status message field.

▼ To Set Up the System Controller

1. **Right-click in the data table to display a pop-up menu.**
2. **Select System Controller Setup.**

   The System Controller Network Setup dialog (FIGURE 3-13) is displayed.

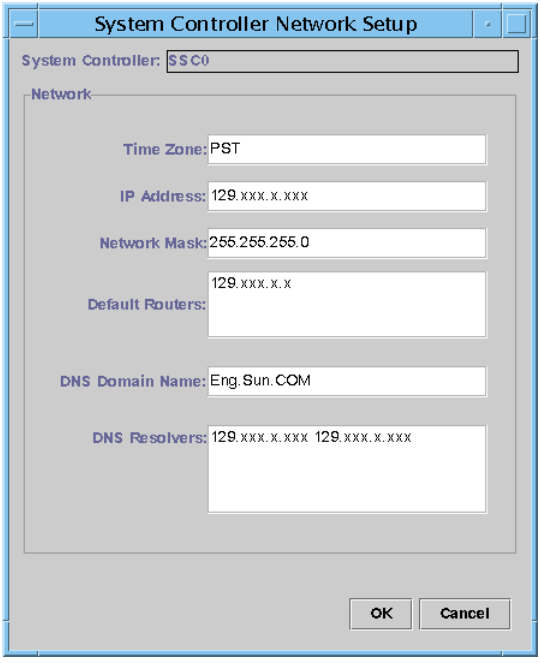

FIGURE 3-13 System Controller Network Setup Dialog

3. **Modify the information as needed by editing the individual fields.**

Note – There is no validation of the changes that you make.

---

4. **Choose one of the following actions:**
   - Click OK to accept the changes you made and close this window.
   - Click Cancel to cancel your request.

   If any error is encountered while retrieving any information, an error message is displayed in the status message field.

5. **If you have changed an IP address:**

   a. **Reboot the system controller.**

      The IP address change does not take effect until the system controller is rebooted.

   b. **Rerun the setup procedure for the Sun Fire 6800, 4810, 4800, or 3800 platform administration module on the agent machine.**

      See "To Set Up the Sun Fire 6800, 4810, 4800, or 3800 Platform Administration Module on an Agent Machine" on page 21.

▼ To Set Up Loghosts

You can use the Setup Loghosts dialog to set up SNMP trap and Syslog hosts for a system.

1. **Right-click in the data table to display a pop-up menu.**
2. **Select Setup Loghosts.**

   The Setup Loghosts dialog (FIGURE 3-14) is displayed.

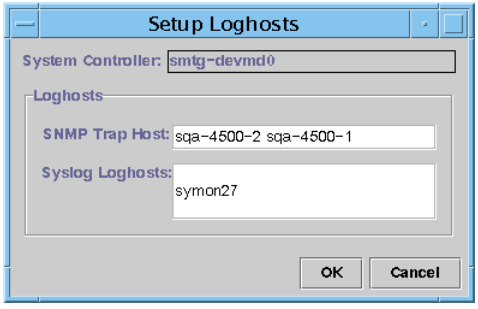

FIGURE 3-14 Setup Loghosts Dialog

3. **Right-click the System Controller button to display a list of system controllers.**
4. **Select a system controller.**

   Information about the SNMP trap host and Syslog hosts for the selected system controller is displayed.

5. **You can add or change the entry for Syslog Loghost.**

   You can enter multiple Syslog hosts, one per line.

6. **Complete this procedure with one of the following actions:**

   - Click OK to accept the changes you made and close this window.
   - Click Cancel to cancel your request.

If an action fails, an error message is shown in the status message field at the bottom of the dialog.

▼ To Display FRU Information

This dialog displays the FRU information of a specific component. This dialog is read-only, and *no* information can be changed.

1. **Select FRU Information...**

   The FRU Information dialog (FIGURE 3-15) is displayed.

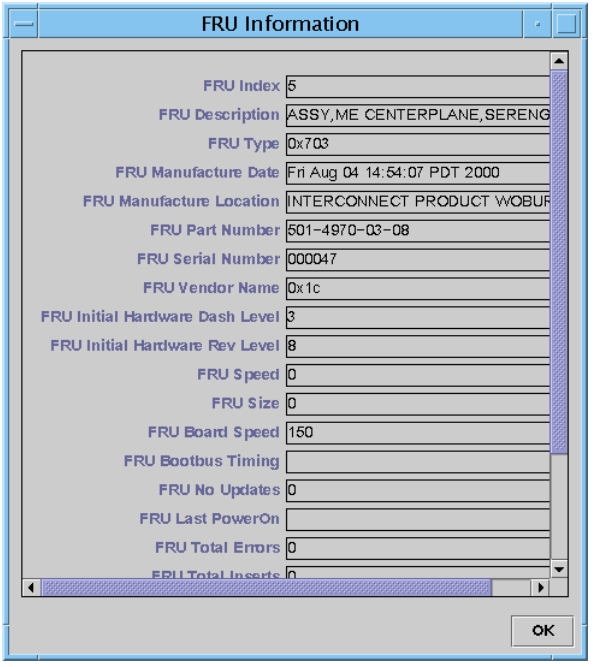

FIGURE 3-15 FRU Information Dialog

2. **Click OK to close this window.**

▼ To Display Host Details

1. **Right-click in the data table to display a pop-up menu.**
2. **Select Host Details.**

   The Host Details window of the corresponding hardware domain is displayed.
3. **Click OK to close this window.**

▼ To Change a Domain Access Control List

1. **Select ACL...**

   The Access Control List (FIGURE 3-16) dialog is displayed.

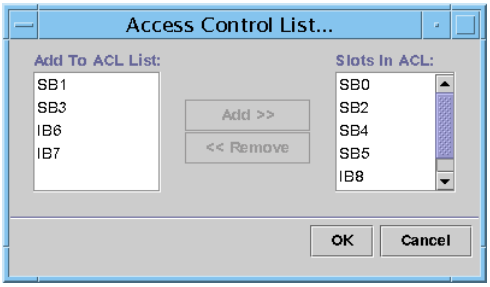

FIGURE 3-16 Access Control List Dialog

   A list of slots that are not present in the ACL of a selected domain is displayed in the Add to ACL List pane. A list of slots that are present in the ACL of a selected domain is displayed in the Slots in ACL pane.
2. **Select one or more entries in the Add to ACL List pane and click the Add >> button.**

   The selected boards are added to the Slot in ACL list.
3. **Select one or more entries in the Slots ACL List pane, and click the << Remove button.**

   The selected boards are removed from the Slot in ACL list.
4. **Complete this procedure with one of the following actions:**
   - Click OK to accept the changes you made and close this window.
   - Click Cancel to cancel your request.

   If an operation fails, an error message is displayed in the status message field.

Physical View and Logical View of a Sun Fire 6800, 4810, 4800, or 3800 System

These views can be seen by both the platform administrator and the domain administrator. The properties and values shown in the Physical View and the Logical View are produced by the Config-Reader. To view tables of available properties and values, see “Config-Reader Module Data Property Tables” on page 73. For a list of platform administration alarm rules, see TABLE 3-5.

For general information on the physical and logical views, refer to the *Sun Management Center 3.0 Software User’s Guide*.

▼ To See Physical and Logical Views

1. **In the Sun Management Center console, double-click a Sun Fire 6800, 4810, 4800, or 3800 system icon.**

   The Details window is displayed (FIGURE 3-17).

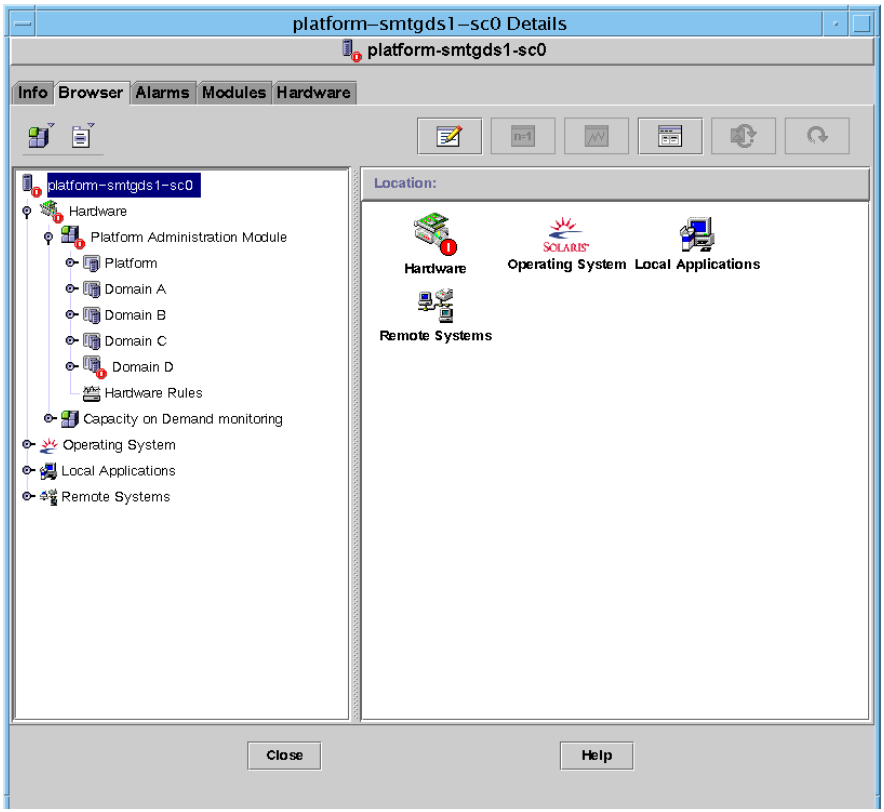

FIGURE 3-17 Details Window

2. **Select the Hardware tab in the Details window.**

   The Hardware Summary table is displayed (FIGURE 3-18).

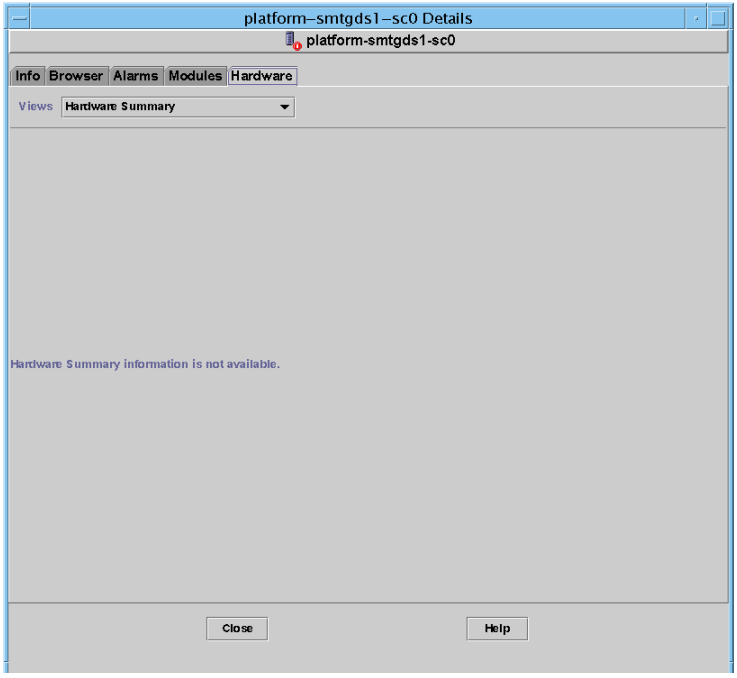

FIGURE 3-18 Hardware Tab and Hardware Summary Table

3. **In the Views pull-down menu (**FIGURE 3-19**), select “system” under either “Physical View” or “Logical View.”**

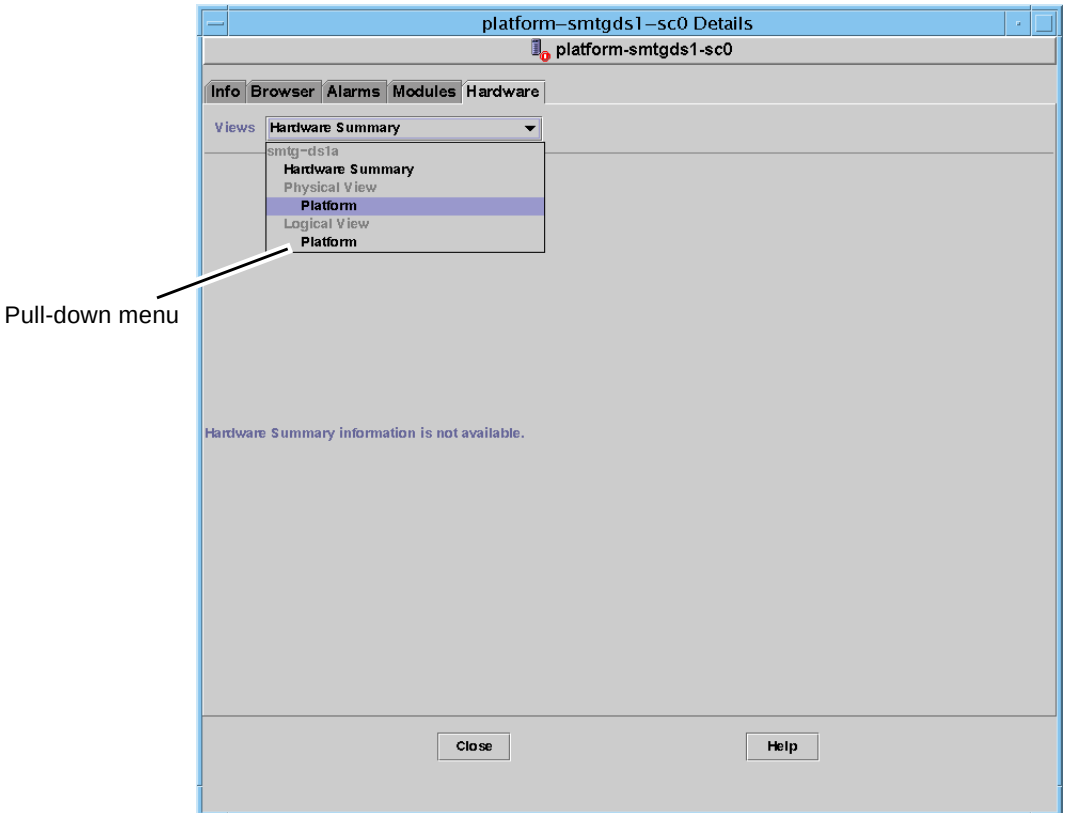

FIGURE 3-19 Views Pull-Down Menu

The selected view is displayed.

- If you selected the Physical View (FIGURE 3-20), slowly move the cursor over the image of the system. Field-replaceable units (FRUs) are highlighted as the cursor passes over them, and if you hold the cursor still for several seconds, the corresponding properties and values are displayed in the Properties window.

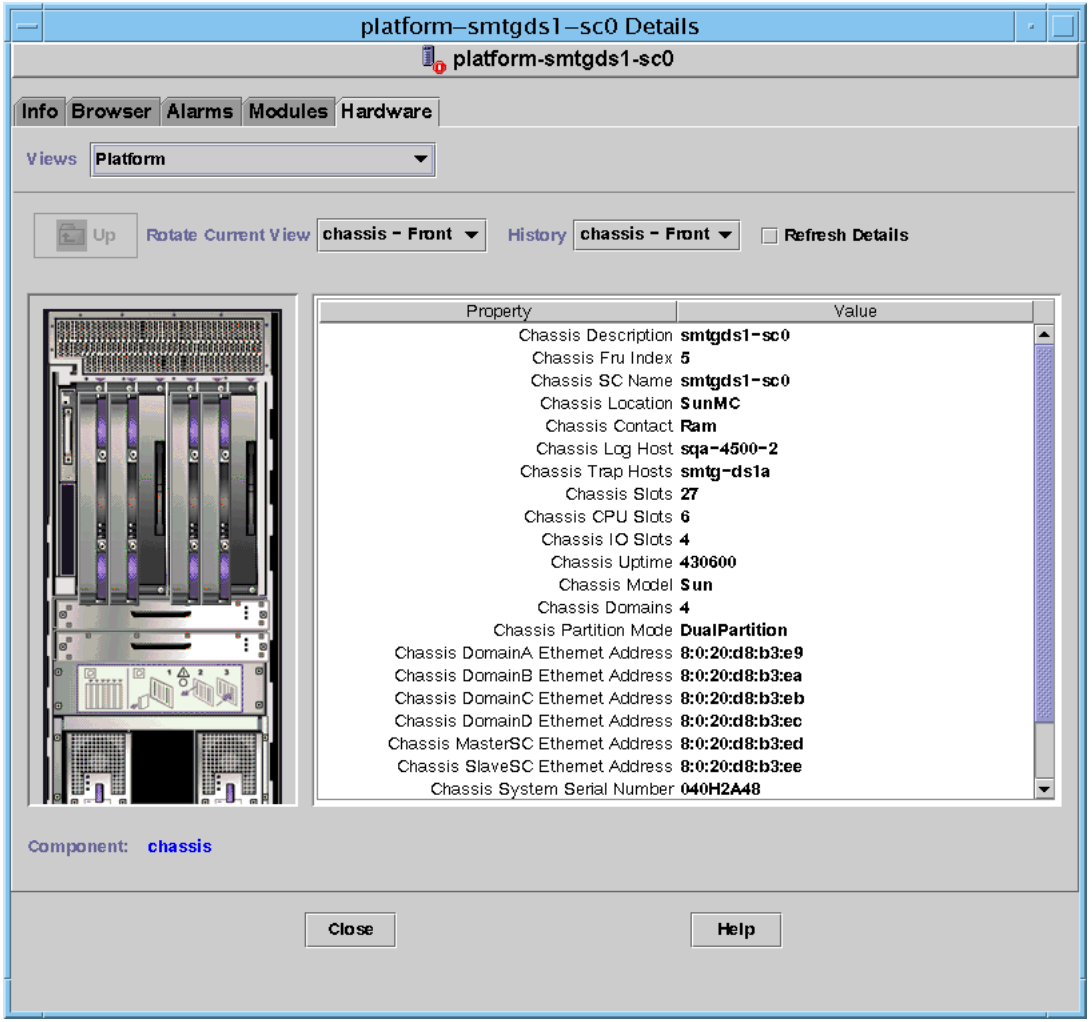

FIGURE 3-20 Physical View (Rear View of Sun Fire 6800 System)

- If you selected the Logical View (FIGURE 3-21), click an icon to display its properties in the Properties window. You can double-click some icons to see various component parts, or click the Expand All button to see all the component parts in the system. Various properties and values are displayed in the Properties window.

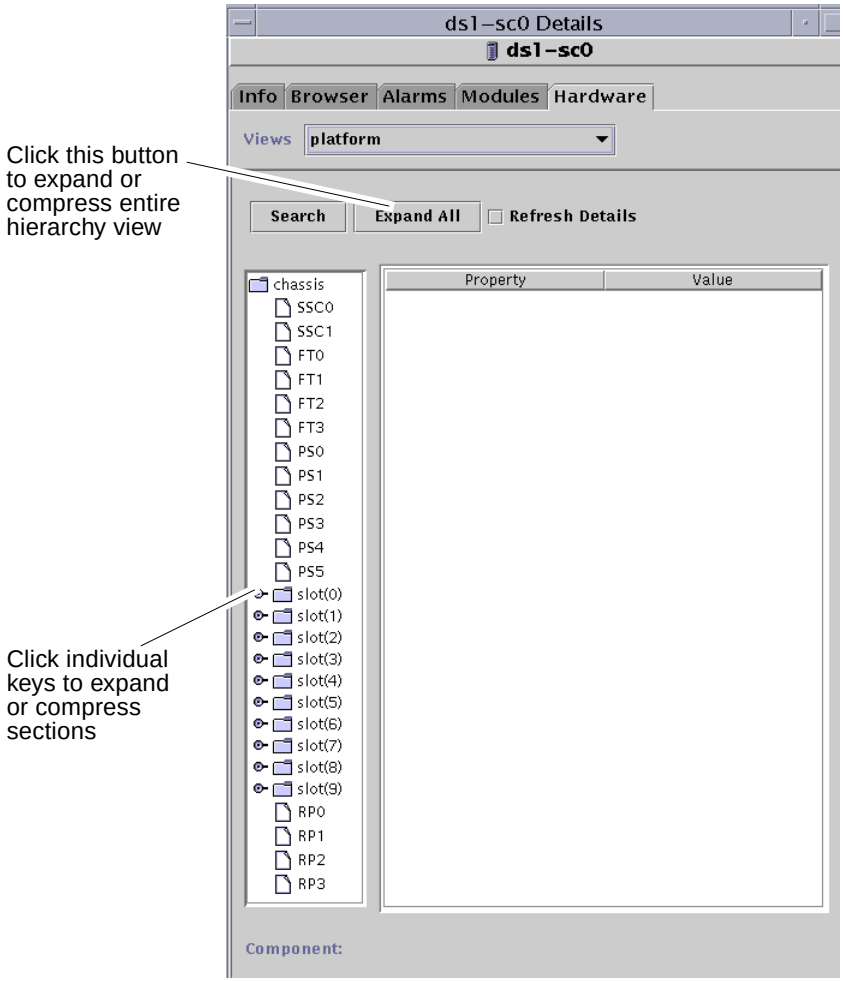

FIGURE 3-21 Logical View

The Logical View has three additional buttons, marked Search, Expand All, and Refresh Details.

- The Search button launches a pop-up Search window (FIGURE 3-22). To use the Search window, enter a component name or path, then click the Find button to find the first instance of the term. The Search feature expands the Logical View if necessary, and highlights the term it has located. To find additional instance of the same term, click the Next button. To close the Search window, click the Cancel button.

FIGURE 3-22 Search Button in the Details Window Logical View

Tip – The Search function is case-sensitive. The error message “Node not found” is displayed at the bottom of the Details window if the search does not locate the component in your system.

The Search function stops searching when it reaches the bottom of the Logical View window, and the error message “Node not found” is displayed at the bottom of the Details window.

Tip – You can use the Browser tab displays to compare data for all similar components. You can use the Hardware tab Physical and Logical views to see data for an individual component in the system. For example, double-click the DIMM table icon in the Browser tab to see a table that lists properties for all DIMMs in the system. To see properties for `dimm(0)`, use the Search Button in the Logical view.

- The Expand All button expands all icons displayed the Logical View, allowing you to see all components and subassemblies, and so forth. The button name toggles to “Recover Default,” and you can click the button to recompress the icon display.
- The Refresh Details button updates the Property / Value table (in the right side of the viewing window).

Platform Administration Hardware Rules

TABLE 3-5 lists alarm conditions for Sun Fire 6800, 4810, 4800, and 3800 platform administration hardware rules.

TABLE 3-5 Hardware Rules for Platform Administration

Rule ID	Severity	Description
`rspa1000`	error / info	This rule generates: • error alarm when status of any slot goes into Failed state • info alarm when status of any slot goes in OverTemp or UnderTemp state
`rspa1001`	info	System Frequency clock failed over to slave.
`rspa1002`	critical	Solaris operating environment domain is down or powered off.
`rspa1003`	info	The keyswitch state changed.
`rspa1004`	info	The master SC failed over to slave.
`rspa1005`	info	This rule generates an info alarm when: • the system controller comes up, or • an IP address of SC has changed.
`rspa1006`	info	A change has been made to `domainloghost`, `domaintraphost`, `chassisloghost`, or `chassistraphost`.
`rspa1007`	critical	Either the SC or the SC SNMP agent is not responding.
`rspa1009`	critical	The version of SC firmware for SCApp is less than 5.12.5.

For domain administration rules, see TABLE 4-13 and TABLE 4-14.

Data Acquisition Table

The Data Acquisition Table allows you to refresh the table for each property to keep your data current. The Data Acquisition Table has 15 properties, each of which represents one table of data in the SC database:

- Chassis
- Slots
- CPU Board
- I/O Board

- Address Repeater Board
- CPU Module
- DIMM
- Ecache
- WCI
- WCI Port
- Domains
- Fan
- Power Supply
- System Controller
- FRU

You can right-click on a property, and left-click on Refresh in the pop-up menu. The values in the table for that property are refreshed. The value for each property in this table is a localized timestamp indicating when the data in the table for that property was last acquired successfully from the SC database (FIGURE 3-23). This allows you to ensure that your data is current.

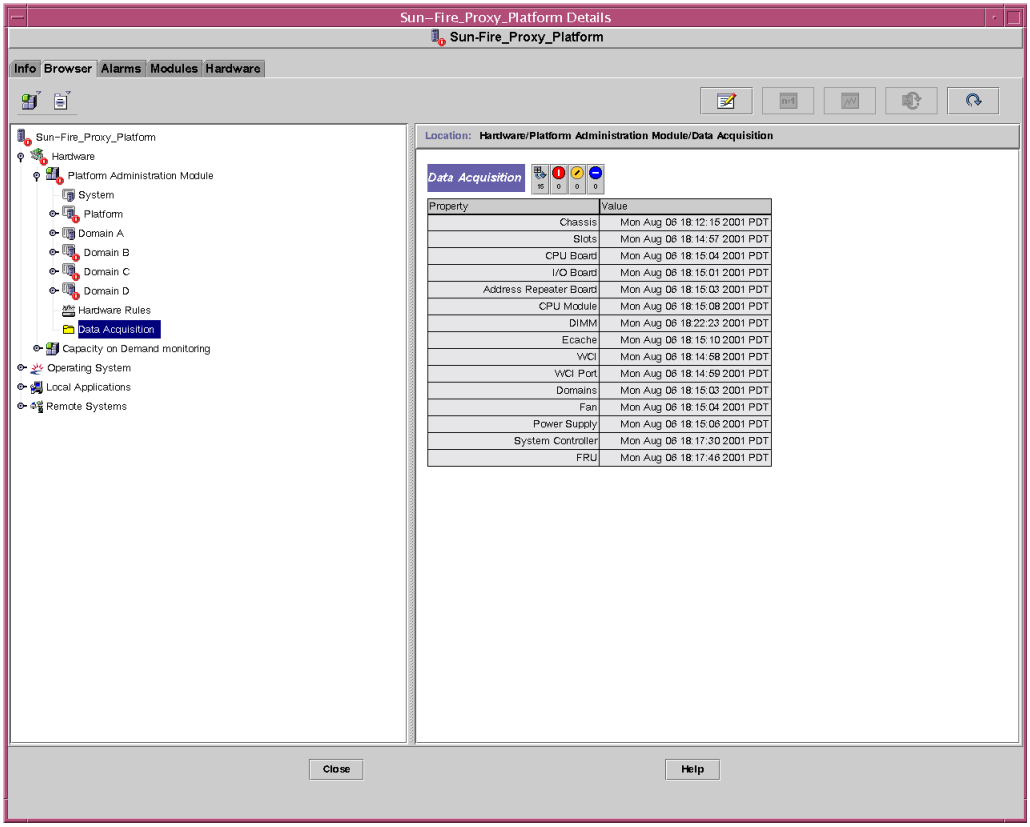

FIGURE 3-23 Data Acquisition Table

The members of the following security access groups may view the contents of the Data Acquisition table:

- `spltop`
- `spltadm`
- `sdaop`
- `sdaadm`
- `sdbop`
- `sdbadm`
- `sdcop`
- `sdcadm`
- `sddop`
- `sddadm`

See TABLE 2-3 for definitions of the User Groups.

CHAPTER 4

Domain Administration Using the Domain Agent

This chapter describes Sun Management Center 3.0 domain administration through the domain agent for Sun Fire 6800, 4810, 4800, and 3800 systems.

This chapter contains the following topics.

Setting Up Administrative Domains

This is a general procedure, as described in the general user guide. For instructions, refer to the *Sun Management Center 3.0 Software User's Guide.*

Starting and Stopping Agents

Refer to the *Sun Management Center 3.0 Software User's Guide.*

Creating a Node

This is a general procedure, as described in the general user guide. For instructions, refer to the *Sun Management Center 3.0 Software User's Guide*.

Config-Reader Module

A Config-Reader module, Config-Reader-Sun Fire(3600-6800), is automatically loaded during installation. You can use the Config-Reader module to see the physical view and logical view of your host.

In addition, the Config-Reader module monitors your hardware and alerts you whenever there is a problem. For example, this module checks for dual-in-line memory module (DIMM) errors.

The Config-Reader icon is located under the Hardware icon in the Details window (see FIGURE 4-3).

▼ To Use the Config-Reader Module

1. **In the Sun Management Center console, double-click a Sun Fire 6800, 4810, 4800, or 3800 system icon.**

   The Details window is displayed (FIGURE 4-1).

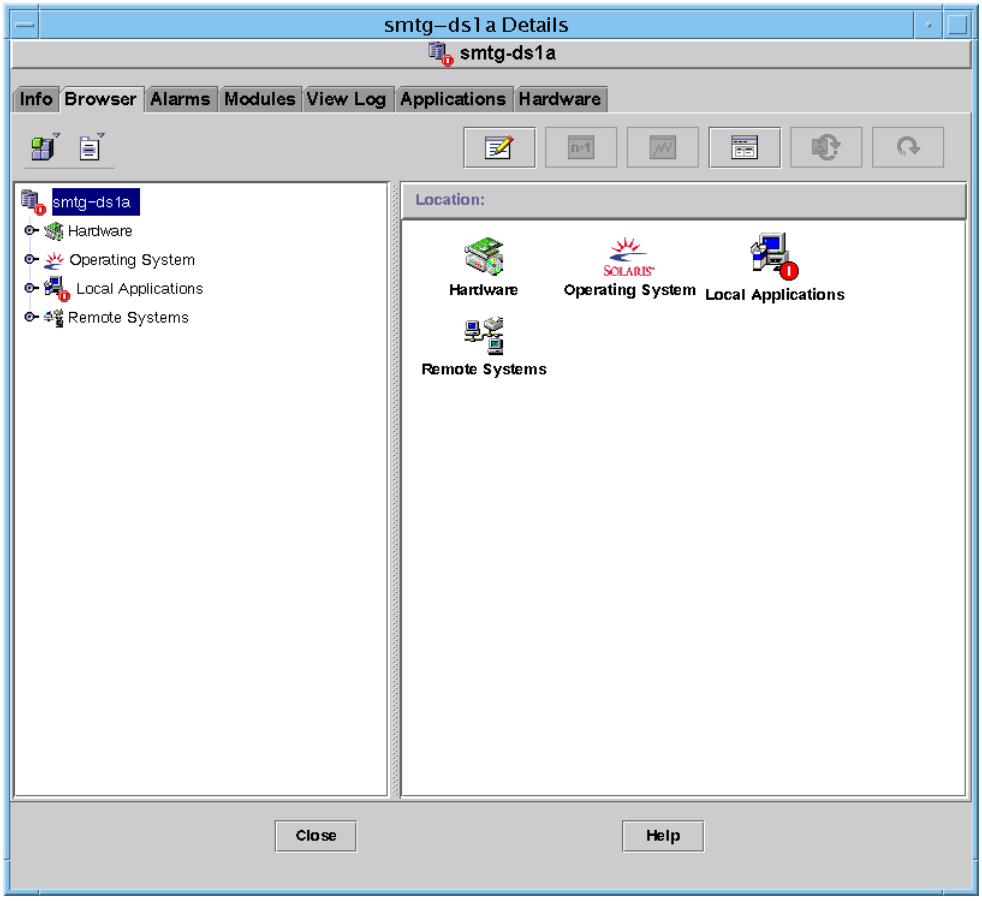

FIGURE 4-1 Details Window

2. **Double-click the Hardware icon in the Details window.**

The Config-Reader-Sun Fire(3800-6800) and the Sun Fire (3800-6800)-Rules icons are displayed (FIGURE 4-2).

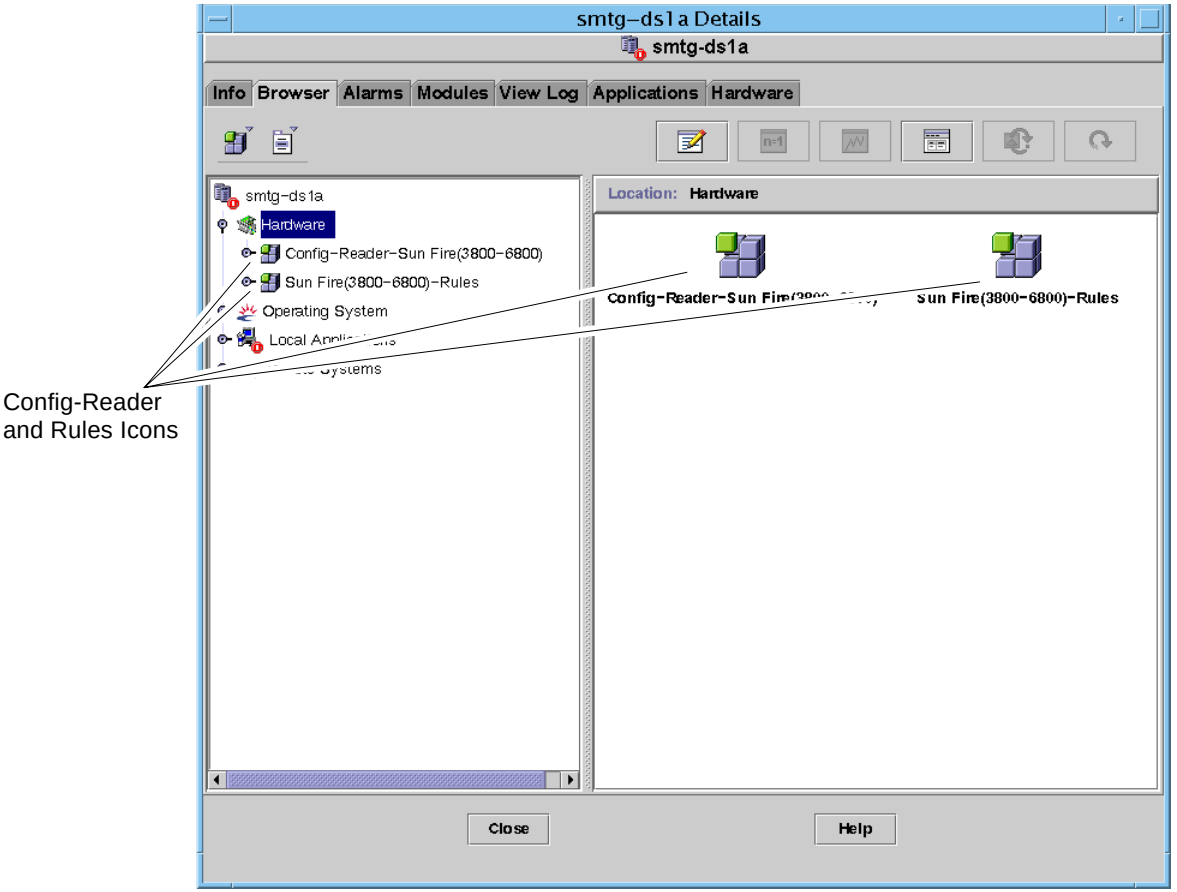

FIGURE 4-2 Config-Reader and Rules Icons

3. **You can now choose to:**

- Double-click the Config-Reader-Sun Fire(3800-6800) icon to display all devices in the system (FIGURE 4-3), then double-click a device icon to display properties and values for that device.
- Double-click the Sun Fire(3800-6800)-Rules icon to display rules icons (FIGURE 4-4), then double-click a rules icon to display properties and values.

To see the properties and values that are available, see “Config-Reader Module Data Property Tables” on page 73. For a list of failures that trigger Config Reader alarms, see “Sun Fire 6800, 4810, 4800, and 3800 Hardware Rules” on page 81.

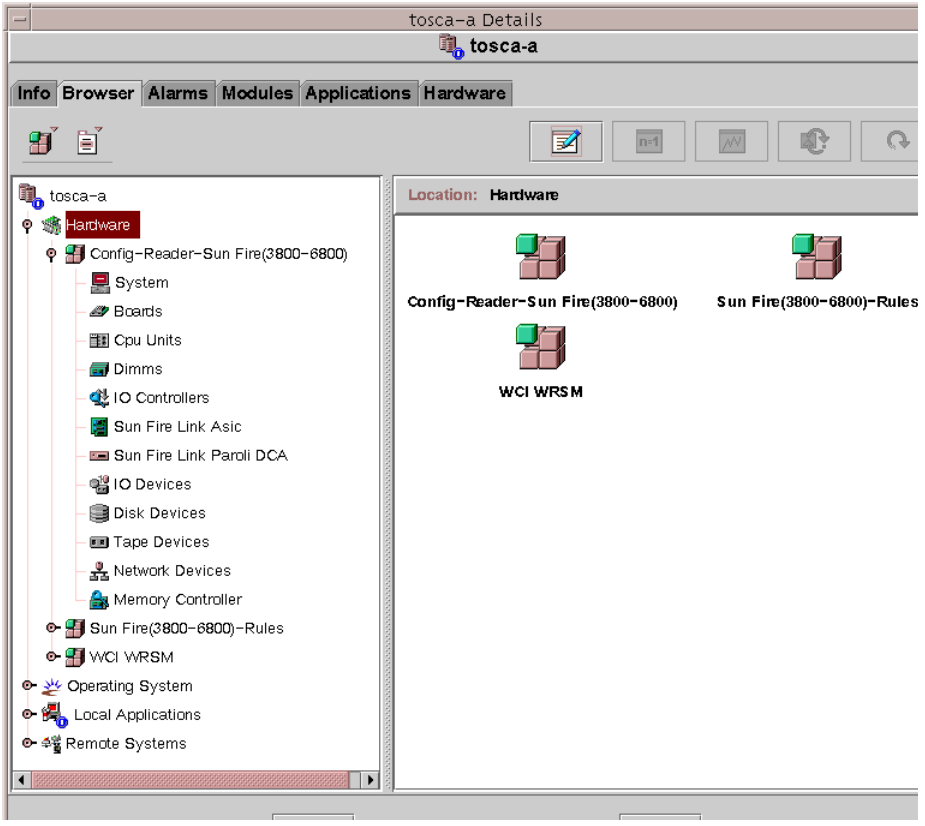

FIGURE 4-3 Config-Reader Devices

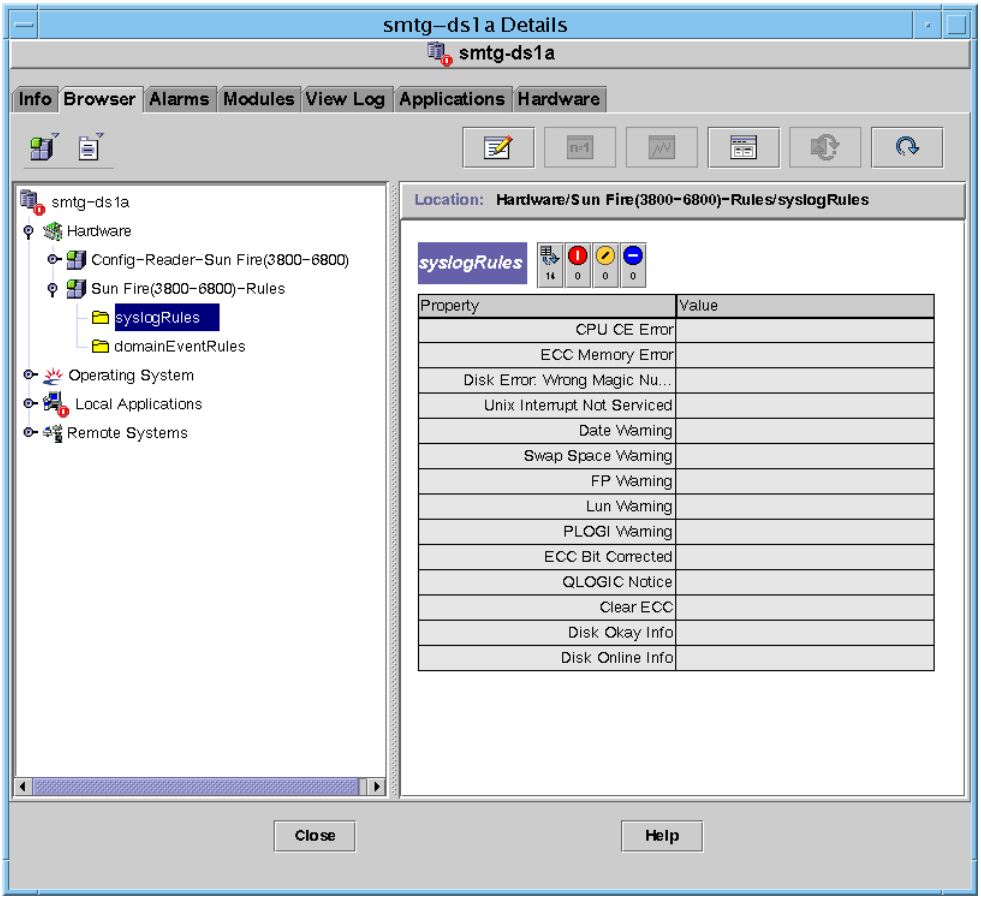

FIGURE 4-4 Sun Fire 6800, 4810, 4800, and 3800 Systems Rules Tables

Loading the Config-Reader Module

If the icon for the Config-Reader-Sun Fire(3800-6800) module or the Sun Fire(3800-6800)-Rules module is not displayed in the Browser tab of the Details window for your Sun Fire 6800, 4810, 4800, or 3800 system, the corresponding module is not loaded. In that case, you can manually load one or both modules, as shown below.

▼ To Load a Module

1. **In the Sun Management Center console, double-click the Sun Fire 6800, 4810, 4800, or 3800 system icon.**

   The Details window is displayed (FIGURE 4-1).

2. **Click the Modules tab in the Details window.**

   The Modules data is displayed (FIGURE 4-5).

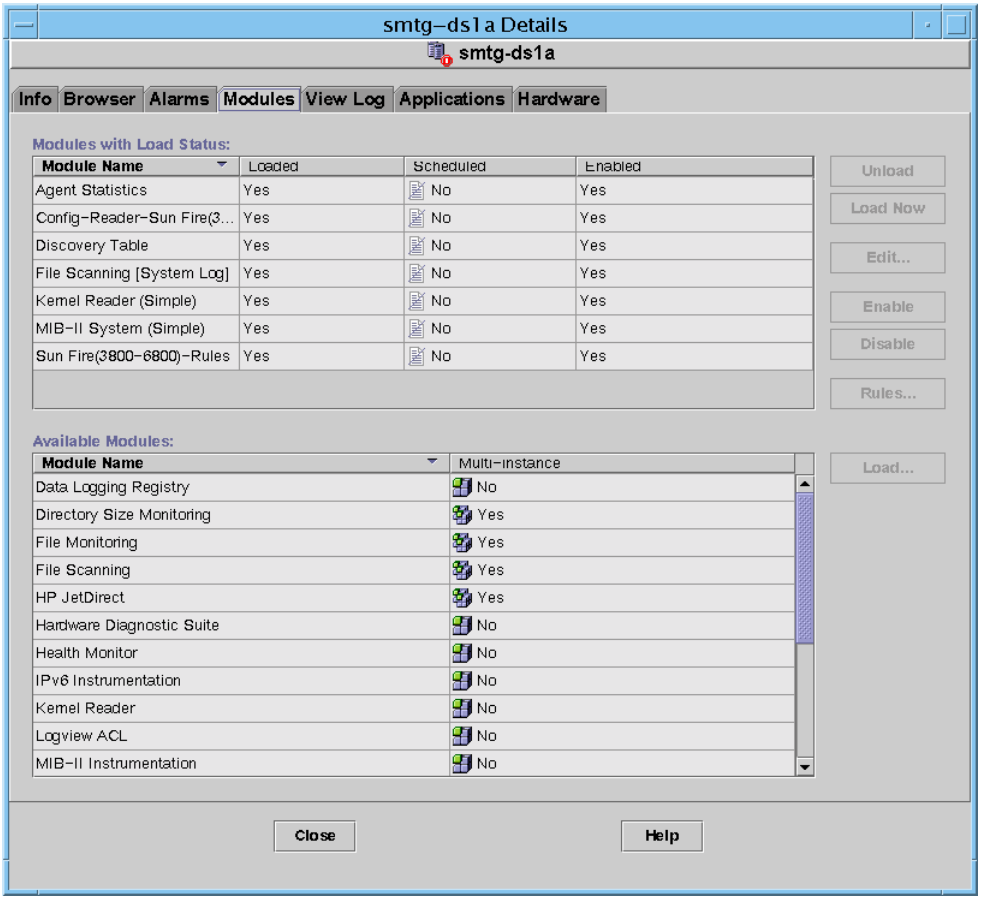

FIGURE 4-5 Modules Tab in the Details Window

3. **Select Config-Reader-Sun Fire(3800-6800) or Sun Fire(3800-6800)-Rules in the Available Modules list, then click Load.**

   The Module Loader pop-up window is displayed.

4. **Click OK in the Module Loader pop-up window.**

   If you have sufficient security privileges, the pop-up window closes, and the module moves into the Modules with Load Status list.

   If you do not have sufficient security privileges, the pop-up window displays an error message.

Config-Reader Module Data Property Tables

This section includes the Config-Reader module data property tables:

The following tables describe the data properties contained in each of the Config-Reader data property tables. When selected, the Config-Reader data property tables are displayed in the Browser tab of the Details window. For more information, see the Browser chapter in the *Sun Management Center 3.0 Software User's Guide*.

System

TABLE 4-1 System Properties

Property	Description
Name	Instance name
Operating System	Operating system running in the machine
Operating System Version	Operating system version
System Clock Frequency	Clock frequency
Architecture	Architecture of the machine
Hostname Of The System	Host name of the system
Machine Name	Machine type
System Platform	Hardware platform of the system
Serial Number	Serial number of the machine
Timestamp	Time stamp value
Raw Timestamp	Raw time stamp value
Total Disks	Total number of disks present in the system
Total Memory	Total memory present in the system
Total Processors	Total processors present in the system
Total Tape Devices	Total tape devices present in the system

Boards

TABLE 4-2 Boards Properties

Property	Description
Name	System name for this unit
Board No	Board slot number
Fru	Unit is or is not a field-replaceable unit
Hot Plugged	Board has or has not been hot-plugged into the system
Hot Pluggable	Board is or is not hot-pluggable
Memory Size	Memory size in Mbytes
Condition	`OK`, `UNKNOWN`, or `FAILED`
Type	Board type

CPU Units

TABLE 4-3 CPU Units Properties

Property	Description
Name	System name for this unit
Board No.	Number of the board where this processor is located
Clock Frequency	Frequency of timer in MHz
Cpu Type	Processor type
Dcache Size	Size of Dcache in Kbytes
Ecache Size	Size of Ecache in Mbytes
Fru	Unit is or is not a field-replaceable unit
Icache Size	Size of Icache in Kbytes
Model	Processor model
Processor ID	Identification number of the processor
Status	Online or offline
Unit	Identification number of the unit

DIMMs

TABLE 4-4 DIMMs Properties

Property	Description
Name	System name for this unit
Bank No	Bank number
Bank Size	Bank size in Mbytes
Bank Status	Operating status, pass or fail
Fru	Unit is or is not a field-replaceable unit

I/O Controllers

TABLE 4-5 I/O Controllers Properties

Property	Description
Name	System name for this unit
Board Number	Board number
Clock Frequency	Clock frequency
Device Type	Device type
Instance Number	Instance number
Model	Device model
Reg	Register address
UPA Mid	UPA Mid
UPA Portid	UPA Portid
Version Number	Version Number

Sun Fire Link ASIC

TABLE 4-6 briefly describes the Sun Fire Link ASIC (WCI) properties. Refer to the *Sun Management Center 3.0 Supplement for Sun Fire Link Systems* for more information about the Sun Fire Link system.

TABLE 4-6 Sun Fire Link ASIC (WCI) Properties

Property	Description
Name	System name for this unit, such as `wci(1d)` or `wci(1f)`
Number of Parolis	Number of Paroli DCA cards

Sun Fire Link Paroli DCA

TABLE 4-7 briefly describes the Sun Fire Link Paroli daughter card assembly (DCA) properties. Refer to the *Sun Management Center 3.0 Supplement for Sun Fire Link Systems* for more information about the Sun Fire Link system.

Note – Paroli card presence can be determined only if the domain is part of a Sun Fire Link cluster. If the domain is not part of a Sun Fire Link cluster, the Paroli card table will be empty; however, this is not an indication that there is no Paroli card in the domain.

TABLE 4-7 Sun Fire Link Paroli DCA Properties

Property	Description
Name	Name of the Paroli card, such as `paroli(0)` or `paroli(1)`
Fru	Whether unit is field-replaceable (`yes`)
Link Number	Identifies the port number link to the Paroli card (`0` or `2`)
Link Validity	Whether the link is `VALID` or `INVALID` to the Paroli card
Link State	Current state of the link: `LINK UP`, `LINK DOWN`, `LINK NOT PRESENT`, `WAIT FOR SC LINK TAKEDOWN`, `WAIT FOR SC LINK UP`, `SC ERROR WAIT FOR LINK DOWN`, or `UNKNOWN`
Remote Link Number	Identifies the link to the remote Paroli card (`0-2`)
Remote Cluster Member	Host name of the cluster member at the remote end of the link

I/O Devices

TABLE 4-8 IO Devices Properties

Property	Description
Name	System name for this unit
Device Type	Device type
Disk Count	Number of drives attached to this unit
Instance Number	Instance number
Model	Model
Network Count	Number of networks attached to this unit
Reg	Register
Tape Count	Number of drives attached to this unit

Disk Devices

TABLE 4-9 Disk Devices Properties

Property	Description
Name	System name for this unit
Device Type	Device type
Disk Name	Controller name
Fru	Unit is or is not a field-replaceable unit
Instance Number	Instance number
Disk Target	Disk target

Tape Devices

TABLE 4-10 Tape Devices Properties

Property	Description
Name	System name for this unit
Device Type	Device type
Fru	Unit is or is not a field-replaceable unit
Instance Number	Instance number
Model	Model
Tape Name	Tape name
Status	Operating status
Tape Target	Tape target number

Network Devices

TABLE 4-11 Network Devices Properties

Property	Description
Name	System name for this unit
Device Type	Device type
Ethernet Address	Ethernet address
Internet Address	Internet address
Interface Name	Interface name
Symbolic Name	Symbolic name

Memory Controller

TABLE 4-12 Memory Controller Properties

Property	Description
Name	System name for this unit
Compatible	Compatible software packages
Device Type	Device type
Port Id	Port Identifier
Reg	Register

Config-Reader Rules

TABLE 4-13 lists alarm rules for Config-Reader module rules.

TABLE 4-13 Config-Reader Rules

Rule ID	Severity	Description
rcrse207	Critical	Generates an alarm when a LUN error occurs in syslog messages.
rcrse225	Critical	ST status rule: generates an alarm when the status of the tape drive is not OK.
rcrse301	Caution	Generates an alarm when the board condition is not OK.

Sun Fire 6800, 4810, 4800, and 3800 Hardware Rules

TABLE 4-14 lists alarm conditions for Sun Fire 6800, 4810, 4800, and 3800 domain administration hardware rules.

TABLE 4-14 Hardware Rules for Domain Administration

Rule ID	Severity	Description
rsr1000	error	CPU correctable error occurred.
rsr1001	error	ECC Memory error occurred.
rsr1002	warning	SCSI disk has a wrong magic number.
rsr1003	warning	Interrupt level has not been serviced.
rsr1004	warning	Last shutdown time was later than the time on the time-of-day chip.
rsr1005	warning	Maximum swap space is less than free space.
rsr1006	warning	FP warning occurred in `syslog` messages.
rsr1007	error	Lun error occurred in `syslog` messages.
rsr1008	error	PLOGI error occurred in `syslog` messages.
rsr1009	info	ECC data bit has been corrected.
rsr1010	warning or info	• Generates warning alarm when Qlogic loop goes offline. • Generates info alarm when Qlogic loop goes online.
rsr1011	warning	Clear ECC warning appeared in `syslog` messages.
rsr1012	info	SCSI disk okay related messages appeared in `syslog` messages.
rsr1013	info	SCSI disk has come online.

Physical and Logical Views of a Domain

The Hardware tab in the Details window allows you to view physical and logical hardware configurations of a Sun Fire 6800, 4810, 4800, and 3800 system. For instructions, see “Physical View and Logical View of a Sun Fire 6800, 4810, 4800, or 3800 System” on page 54.

If the system is divided into multiple domains, as a domain administrator you can see detailed information only for domains to which you can access. If you attempt to view a domain to which you do not have access privilege, the message “Insufficient security privilege to load console info” is displayed at the bottom of the Console window.

FIGURE 4-6 shows a physical view of Paroli cards in a domain. Access this view by clicking on the Hardware tab, clicking on the Views list box, and clicking system under Domain. Be sure you have system - Rear in the Rotate Current View list box.

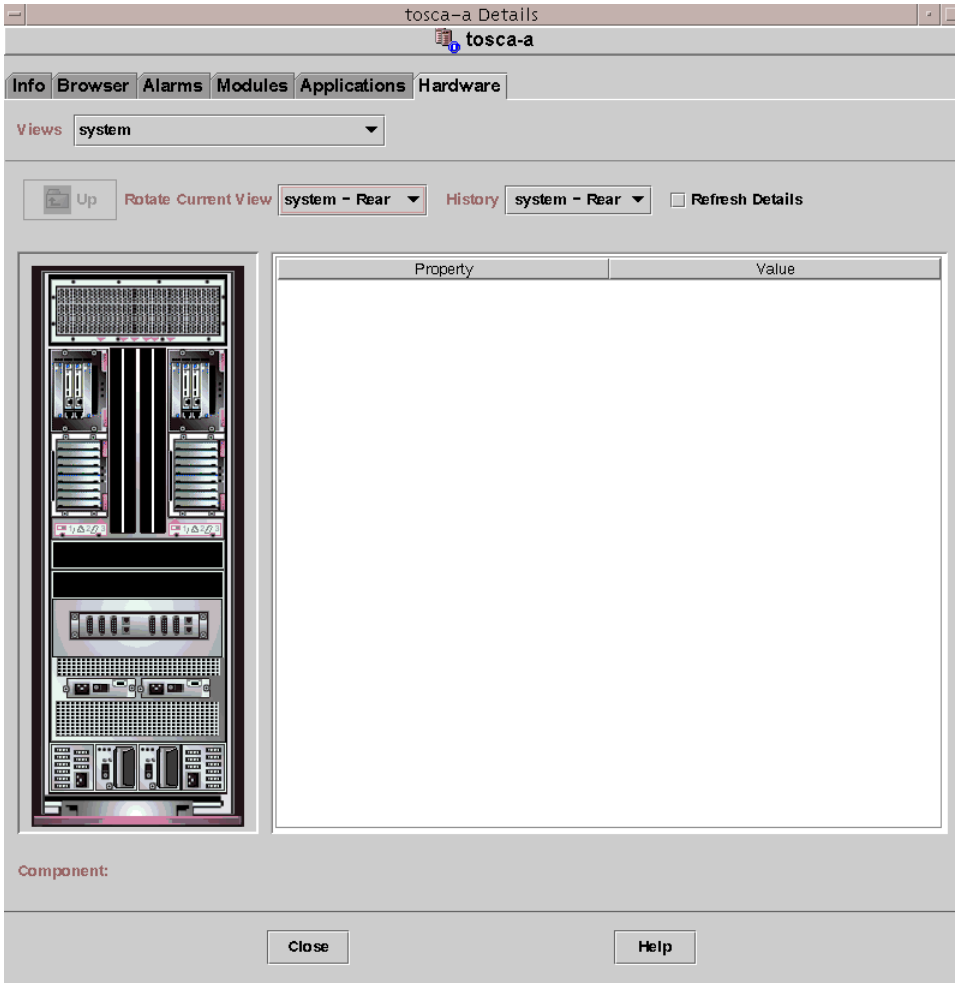

FIGURE 4-6 Domain Physical View of Paroli Cards (Rear)

CHAPTER 5

Dynamic Reconfiguration From the Domain

This chapter describes how to perform dynamic reconfiguration (DR) operations from a Sun Fire 3800, 4800, 4810, 6800, or 15K domain using the Sun Management Center 3.0 GUI and the Dynamic Reconfiguration module. The dynamic reconfiguration operations include such operations as attaching a board to a Sun Fire domain, detaching a board from a Sun Fire domain, and configuring a board on a Sun Fire domain. Some other management operations that you might want to perform either as part of a dynamic reconfiguration operation or as part of another operation are testing a board or powering a board off or on.

Prerequisites

You need to be familiar with dynamic reconfiguration operations before you use the Sun Management Center 3.0 GUI to perform DR operations. Refer to the following documents to learn more about dynamic reconfiguration operations on a Sun Fire system:

- *Sun Fire 15K Dynamic Reconfiguration User Guide*, which describes the underlying Sun Fire 15K operations for the DR module. For the latest general issues, known limitations, and known bugs about dynamic reconfiguration operations for the Sun Fire 15K, refer to the *System Management Services (SMS) 1.2 Installation Guide and Release Notes.*
- *Sun Fire 6800, 4810, 4800, and 3800 Systems Dynamic Reconfiguration User's Guide*, which describes the underlying Sun Fire 6800, 4810, 4800, and 3800 operations for the DR module.
- `cfgadm` man page, which describes the underlying command for the DR module.

Dynamic Reconfiguration Module

The Dynamic Reconfiguration module enables you to perform dynamic reconfiguration operations from the domain in the same manner that you would with the `cfgadm`(1M) command only using the Sun Management Center 3.0 GUI. This module works on Sun Fire 3800, 4800, 4810, 6800, and 15K systems.

During the software installation, this module is automatically installed. You need to load this module to use it the first time. You can unload the module, if desired. For specific information about loading and unloading Sun Management Center modules, refer to Chapter 11, “Managing Modules,” in the *Sun Management Center 3.0 Software User’s Guide*.

FIGURE 5-1 shows the icon for the module—Dynamic Reconfiguration Sun Fire (3800-15000)—as it is displayed in the host Details window on a domain under the Browser tab and Hardware icon.

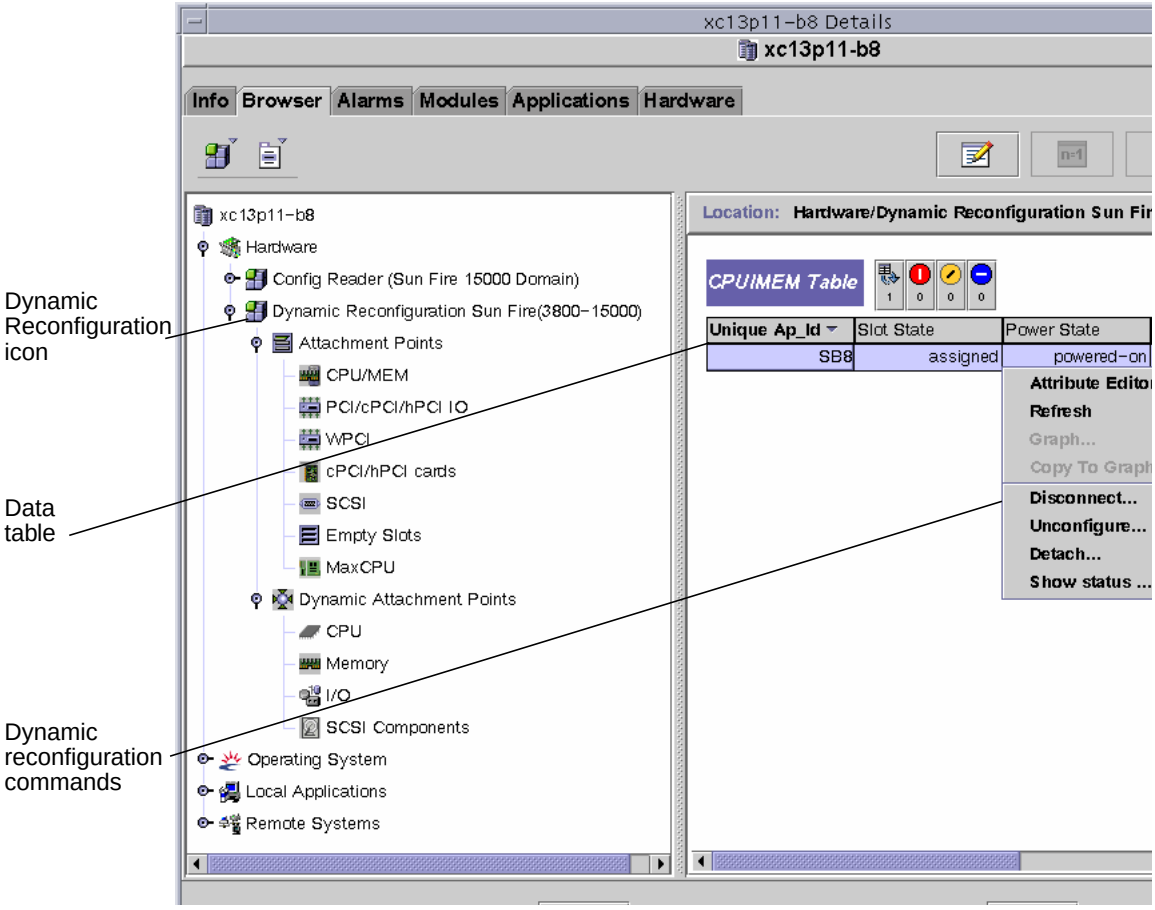

FIGURE 5-1 Dynamic Reconfiguration Features

There are two sections of tables:

- Attachment Points—single attachment points for larger assemblies such as system boards and I/O boards
- Dynamic Attachment Points—dynamic attachment points for individual devices and components such as CPU modules, DIMMs, and SCSI drives

Attachment Points

An attachment point is a collective term for a board and its slot. The Attachment Points tables show information about the following types of board slots:

- CPU/MEM
- PCI/cPCI/hPCI I/O
- WPCI
- cPCI/hPCI Cards
- SCSI
- Empty Slots

The Dynamic Reconfiguration module allows you to perform dynamic reconfiguration operations from the domain on the attachment points in the tables.

Dynamic Attachment Points

Dynamic attachment points refer to components on the system boards, such as CPUs, memory, and I/O devices. The dynamic attachment points are created by the DR driver. Refer to the `dr`(7D) man page in the Sun Solaris 8 Reference Manual Collection for more details about the DR driver. The Dynamic Attachment Point tables show information about the following types of components:

- CPU
- Memory
- I/O
- SCSI

The Dynamic Reconfiguration module allows you to perform dynamic reconfiguration operations from the domain on the dynamic attachment points in the tables.

Data Tables

Use the Dynamic Reconfiguration data tables in the right half of a Details window to find the last-known state of a dynamically-reconfigurable board or device.

All data tables for Dynamic Reconfiguration Sun Fire(3800-15000) use the format shown in TABLE 5-1.

TABLE 5-1 Dynamic Reconfiguration Data Table Format

Property	Description
Unique Ap_Id	Logical name for the attachment point or dynamic attachment point
Slot State	State of the slot
Power State	Power state for the slot
Receptacle	Receptacle state
Occupant	Occupant state
Type	Type of attachment point or dynamic attachment point
Condition	Board or component condition
Information	General information for the type
When	Date and time when components were configured
Busy	Indicates whether or not the attachment point or dynamic attachment point is busy
Phys_Id	Physical name for the attachment point or dynamic attachment point

Dynamic Reconfiguration Operations from the Domain

This section describes how to perform dynamic reconfiguration operations from the domain from a Sun Fire domain using the Sun Management Center 3.0 Dynamic Reconfiguration module. The dynamic reconfiguration operations from the domain are based on the `cfgadm`(1M) command. Refer to the `cfgadm`(1M) command in the Sun Solaris 8 Reference Manual Collection for more information about the various `cfgadm` options.

There are both logical and physical aspects of Sun Fire domains:

- The *logical* domain is the set of slots—either containing or not containing system boards—grouped as belonging to a specific domain.
- The *physical* domain is the set of boards in the logical domain that are physically interconnected.

A slot—whether occupied or empty—can be a member of a logical domain, while not being part of a physical domain. After boot, a board or empty slot can be assigned to or unassigned from a logical domain. A board becomes part of a physical domain when the Solaris operating environment requests it. An empty slot is never part of a physical domain.

The following dynamic reconfiguration and other management operations from the domain are described in this section of the supplement:

- Attaching a board
- Detaching a board
- Assigning a board
- Unassigning a board
- Connecting a board
- Disconnecting a board
- Configuring a board or components
- Unconfiguring a board, components, or memory
- Powering on a board
- Powering off a board
- Testing a board

cfgadm Options Supported

TABLE 5-2 describes the cfgadm(1M) options that are supported by the Dynamic Reconfiguration module. Refer to the cfgadm(1M) command in the Sun Solaris 8 Reference Manual Collection for more information about the various cfgadm options.

TABLE 5-2 cfgadm Options Supported by Dynamic Reconfiguration

cfgadm **Option**	**Sun Management Center GUI Menu Item**	**Description**
-c configure	Attach	Attach a board
-c disconnect	Detach	Detach a board
-x assign	Assign	Assign a board
-c disconnect -x unassign	Unassign	Unassign a board
-c connect	Connect	Connect a board
-c disconnect	Disconnect	Disconnect a board
-c configure	Configure	Configure a board or another component
-c unconfigure	Unconfigure	Unconfigure a board or another component
-x poweron	Power On	Power on a board
-x poweroff	Power Off	Power off a board
-t	Test	Test a board

Showing Domain Information From the Domain

Before you perform any dynamic reconfiguration operations from a Sun Fire domain, look at the Attachment Points and Dynamic Attachment Points tables in the Dynamic Reconfiguration module under Hardware.

Ensure Boards Are in a Domain's ACL

Before you can perform certain dynamic reconfiguration operations on a system board from a domain, the board must be in the domain's ACL.

Assigning a Board

This operation adds a system board to the logical domain.

▼ To Assign a Board

1. **Log in as a member of the `esadm` group to the domain to which you want to assign a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to assign in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Assign menu selection.**

   The system displays the Assign confirmation box with this message:

   ```
   Assign a slot.
   Are you sure you want to assign?
   ```
4. **Left-click on the OK button to assign the selected board. Otherwise, left-click on the Cancel button to cancel the assign operation.**

Unassigning a Board

This operation removes a system board from the logical domain.

▼ To Unassign a Board

1. **Log in as a member of the `esadm` group to the domain from which you want to unassign a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to unassign in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Unassign menu selection.**

   The system displays the Unassign confirmation box with this message:

```
Unassign.
Are you sure you want to unassign?
```

4. **Left-click on the OK button to unassign the selected board. Otherwise, left-click on the Cancel button to cancel the unassign operation.**

Attaching a System Board

This operation attaches the specified system board to the Solaris operating environment running in the specified domain. The process of attaching a system board involves a series of automatic steps performed by the Dynamic Reconfiguration module:

- Assigns the system board to the logical domain.
- Powers on the system board.
- Tests the system board.
- Connects the system board to the domain physically through the system controller.
- Configures the components on the system board in the Solaris operating environment running on the domain, so that applications running on the domain can use the components.

Some of the automatic steps are not performed depending on the initial state of the system board and other components or whether hardware problems prohibit the successful completion of the attach operation.

▼ To Attach a System Board

1. **Log in as a member of the `esadm` group to the domain to which you want to attach a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to attach in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Attach menu selection.**

   The system displays the Attach Confirmation box with this message:

   ```
   Attach a board.
   Attach will connect and configure the selected board.
   Are you sure you want to attach?
   ```
4. **Left-click on the OK button to connect and configure the selected board. Otherwise, left-click on the Cancel button to cancel the attach operation.**

Detaching a System Board

This operation detaches the specified system board from the Solaris operating environment running in the specified domain. The process of detaching a system board involves a series of automatic steps performed by the Dynamic Reconfiguration module:

- Unconfigures the components on the system board from the Solaris operating environment running on the domain, so that applications running on the domain can no longer use the components.
- Communicates with the system controller to physically disconnect the system board from the domain. After this step, the system board is no longer part of the physical domain, although it is still part of the logical domain.
- Powers off the system board.

Some of the automatic steps are not performed depending on the initial state of the system board and other components or whether hardware problems prohibit the successful completion of the detach operation.

▼ To Detach a System Board

1. **Log in as a member of the `esadm` group to the domain from which you want to detach a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to detach in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Detach menu selection.**

   The system displays the Detach confirmation box (FIGURE 5-2).

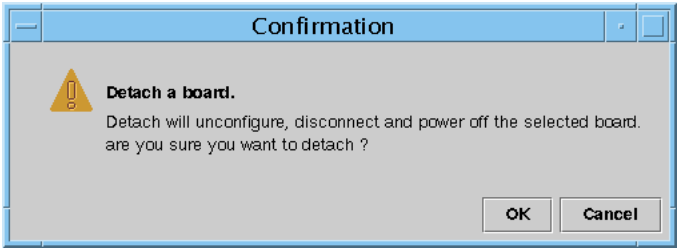

FIGURE 5-2 Detach Confirmation Box

4. **Left-click on the OK button to unconfigure, disconnect, and power off the selected board. Otherwise, left-click on the Cancel button to cancel the detach operation.**

Connecting a Board

This operation performs the following steps:

- Assigns the system board to a logical domain if the board is available and is not part of the logical domain
- Powers on the system board
- Tests the system board
- Connects the system board to the physical domain

▼ To Connect a System Board

1. **Log in as a member of the `esadm` group to the domain in which you want to connect a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to connect in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Connect menu selection.**

   The system displays the Connect confirmation box with this message:

```
Connect
Are you sure you want to connect?
```

4. **Left-click on the OK button to connect the selected board. Otherwise, left-click on the Cancel button to cancel the connect operation.**

Note – The Sun Fire 15K system allows you to click on an Abort button to stop the operation prematurely.

Disconnecting a Board

This operation performs the following steps:

- Unconfigures the system board, if necessary
- Disconnects the system board from the physical domain

▼ To Disconnect a System Board Other Than a SCSI Board

1. **Log in as a member of the `esadm` group to the domain in which you want to disconnect a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to disconnect in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Disconnect menu selection.**

   The system displays the Disconnect dialog box (FIGURE 5-3).

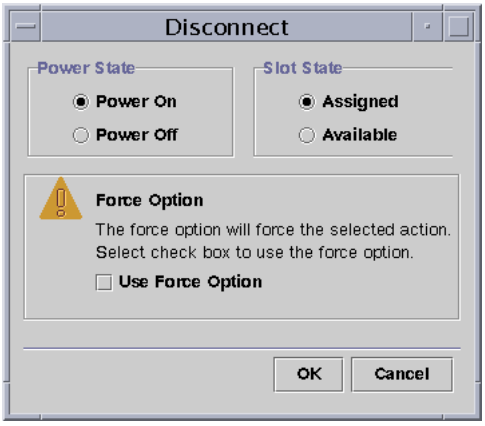

FIGURE 5-3 Disconnect Dialog Box

4. **Left-click on the radio button beside the Power State option you want the board to be in *after* it is disconnected.**
5. **Left-click on the radio button beside the Slot State option you want the board to be in *after* it is disconnected.**
6. **Left-click on the Use Force Option box to force the disconnect operation. Otherwise, leave the Use Force Option box blank.**

7. **Left-click on the OK button to disconnect the selected board. Otherwise, left-click on the Cancel button to cancel the disconnect operation.**

Note – The Sun Fire 15K system allows you to click on an Abort button to stop the operation prematurely.

▼ To Disconnect a SCSI Board

Log in as a member of the `esadm` group to the domain in which you want to disconnect a SCSI board.

8. **Right-click on the Unique Ap_Id for the SCSI board you want to disconnect in the appropriate board table.**

   The system displays a menu of board operations.

9. **Left-click on the Disconnect menu selection.**

   The system displays the Disconnect dialog box with this message:

```
Disconnect
Are you sure you want to continue?
```

10. **Left-click on the OK button to disconnect the SCSI board. Otherwise, left-click on the Cancel button to cancel the disconnect operation.**

Configuring a Board, a Component, or Memory

This operation performs the following steps:

- Connects the system board, if necessary.
- Configures a system board or a component or memory on a board into the Solaris operating environment running in the domain, so that applications running on the domain can use the board or the component or memory on the board.

▼ To Configure a System Board, a Component, or Memory

1. **Log in as a member of the `esadm` group to the domain in which you want to configure a system board, a component, or memory.**
2. **Right-click on the Unique Ap_Id for the system board, component, or memory you want to configure in the appropriate board table.**

   The system displays a menu of board, component, or memory operations.
3. **Left-click on the Configure menu selection.**

   The system displays the Configure confirmation box with this message:

   ```
   Configure
   Are you sure you want to configure?
   ```
4. **Left-click on the OK button to configure the selected board, component, or memory. Otherwise, left-click on the Cancel button to cancel the configure operation.**

Note – The Sun Fire 15K system allows you to click on an Abort button to stop the operation prematurely.

Unconfiguring a Board, a Component, or Memory

This operation unconfigures a system board, a component on a board, or memory so that applications running on the domain can no longer use the board, component, or memory.

▼ To Unconfigure a System Board or a Component

1. **Log in as a member of the `esadm` group to the domain in which you want to unconfigure a system board or component.**
2. **Right-click on the Unique Ap_Id for the system board or component you want to unconfigure in the appropriate board table.**

   The system displays a menu of board or component operations.
3. **Left-click on the Unconfigure menu selection.**

   The system displays the Unconfigure dialog box with this message:

```
Select Force Option
The force option will force the selected action.
Select check box to use the force option.
```

4. **Select the Use Force Option check box to force the unconfigure operation. Otherwise, leave the Use Force Option box blank.**
5. **Left-click on the OK button to unconfigure the selected board or component. Otherwise, left-click on the Cancel button to cancel the unconfigure operation.**

Note – The Sun Fire 15K system allows you to click on an Abort button to stop the operation prematurely.

▼ To Unconfigure Memory

1. **Log in as a member of the `esadm` group to the domain in which you want to unconfigure memory.**
2. **Right-click on the Unique Ap_Id for the memory component you want to unconfigure in the Memory component table.**

   The system displays a menu of memory component operations.
3. **Left-click on the Unconfigure menu selection.**

   The system displays the Unconfigure Memory dialog box (FIGURE 5-4).

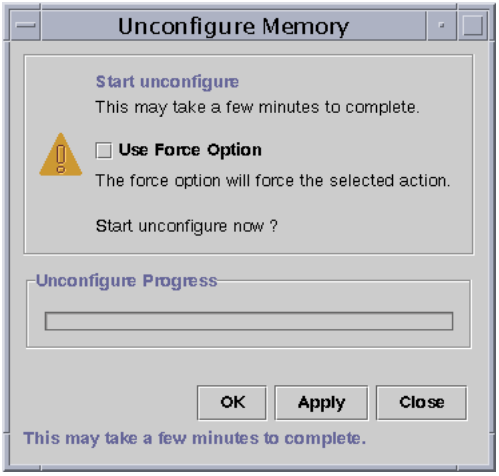

FIGURE 5-4 Unconfigure Memory Dialog Box

4. **Select the Use Force Option box to force the unconfigure operation. Otherwise, leave the Use Force Option box blank.**
5. **Left-click on the OK button to start unconfiguring memory. Otherwise, left-click on the Close button to cancel the unconfigure operation.**

Note – On the Sun Fire 3800, 4800, 4810, or 6800 system, if you want to keep the Unconfigure Memory dialog box open to monitor the progress of the operation, left-click on the Apply button to start unconfiguring memory. On the Sun Fire 15K system, if you start the unconfigure operation for memory, it may take a few minutes to complete. You can left-click on the Abort button to stop the unconfigure operation before it finishes.

Powering on a Board

This operation powers on a system board. The board must be assigned to the logical domain, but *not* be in the physical domain.

▼ To Power on a Board

1. **Log in as a member of the `esadm` group to the domain in which you want to power on a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to power on in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Power On menu selection.**

   The system displays the Power On confirmation box with this message:

   ```
   Power On a board.
   Are you sure you want to power on?
   ```
4. **Left-click on the OK button to power on a system board. Otherwise, left-click on the Cancel button to cancel the power on operation.**

Powering off a Board

This operation powers off a system board. The board must be assigned to the logical domain, but *not* be in the physical domain.

▼ To Power off a Board

1. **Log in as a member of the `esadm` group to the domain in which you want to power off a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to power off in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Power Off menu selection.**

   The system displays the Power Off confirmation box with this message:

```
Power Off a board.
Are you sure you want to power off?
```

4. **Left-click on the OK button to power off a system board. Otherwise, left-click on the Cancel button to cancel the power off operation.**

Testing a Board

This operation tests system boards. The board must be assigned to the logical domain, but *not* be in the physical domain.

▼ To Test a Board

1. **Log in as a member of the `esadm` group to the domain in which you want to test a system board.**
2. **Right-click on the Unique Ap_Id for the system board you want to test in the appropriate board table.**

   The system displays a menu of board operations.
3. **Left-click on the Test menu selection.**

   The system displays the Test Board dialog box (FIGURE 5-5).

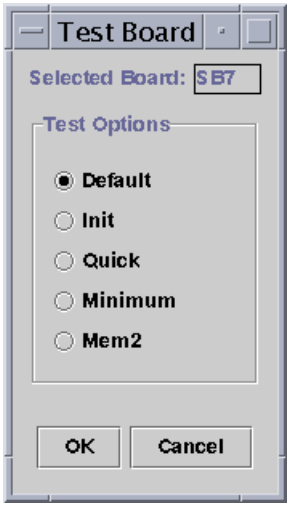

FIGURE 5-5 Test Board Dialog Box

4. **Left-click on the radio button beside the Test Option you want.**
5. **After ensuring that you have selected the correct board to test and have the correct option checked, left-click on the OK button to start the test. Otherwise, left-click on the Cancel button to cancel the test.**

Note – The Sun Fire 15K system allows you to click on an Abort button to stop the operation prematurely.

Showing Status

This operation shows the status of the last dynamic reconfiguration command executed for that board or slot. The status display is dynamically updated with the status of the command currently being executed. If the command being executed halts on an error, an error message from the `cfgadm`(1M) program is displayed. The message "`No status from the agent`" is displayed if no command has been executed, or if a command finishes execution without errors.

▼ To Show Status

1. **Log in as a member of the `esadm` group to the domain in which you want to show status for a system board or slot.**
2. **Right-click on the Unique Ap_Id for the system board or slot for which you want to show status in the appropriate board table.**

   The system displays a menu of board or slot operations.
3. **Left-click on the Show status menu selection.**

   The system displays the Status box showing the execution status of the most current dynamic reconfiguration command, if any.

For example, if an operation fails, the status shows this type of message (FIGURE 5-6):

FIGURE 5-6 Unsuccessful Operation in Show Status for Domain DR Operation

For another example, after the configure operation finishes successfully—or if no command has been executed—the status shows this message (FIGURE 5-7):

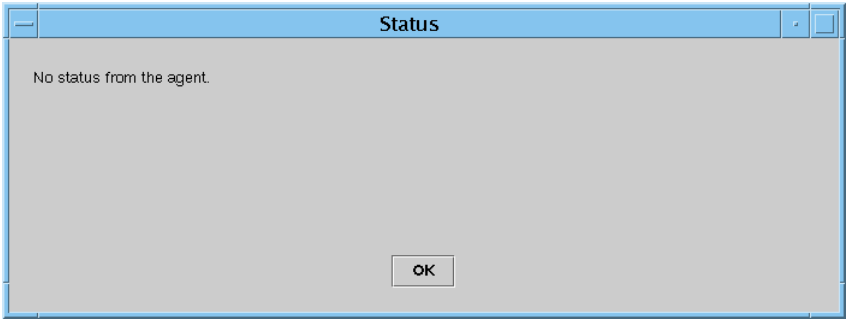

FIGURE 5-7 Successful Operation in Show Status for Domain DR Operation

4. **Left-click on the OK button when you are finished looking at the status.**

CHAPTER 6

Capacity on Demand Administration

This chapter describes requirements to install and use the Capacity on Demand (COD) software, describes what the COD software is, explains the software components, describes the COD part number and licensing requirements, and describes resource monitoring.

Note – If you are not a Sun service provider, only one command in this chapter may be useful to you. See “To Send the COD Usage Log to Sun” on page 119.

Topics covered in this chapter are:

See Chapter 2 for installation and setup requirements.

COD Overview

The COD software provides CPU processor licensing for this family of mid-range systems:

- Sun Fire 6800
- Sun Fire 4810
- Sun Fire 4800
- Sun Fire 3800

When you order a COD system, you buy a fully configured system, which has the maximum number of CPU processors installed. With a COD system, only the CPU processors you have Right To Use (RTU) licenses for should be enabled.

The COD software offers you the capability to add additional resources dynamically when you need them. When you use additional resources, you are obligated by the contract to purchase more RTU licenses for these resources. For example, if a CPU processor fails, the COD system allows you to allocate a spare CPU processor to reduce the capacity/performance downtime.

RTU licenses are issued for resources you purchased and are permitted to use. The RTU licenses are installed on the system controller. RTU licenses that are purchased with your system purchase order are pre-installed before the shipment. To install additional RTU licenses that you purchased later, use the system controller `addcodlicense` command.

The system controller monitors the CPU processor usage on a regular basis. The COD usage log is collected and sent to Sun Microsystems, Inc. by email for auditing on a regular monthly basis using the Sun Management Center software.

COD Part Number and License Requirements

Each COD system has a part number different than a non-COD system.

Following are additional license requirements:

- You must purchase a service contract for every COD system.
- You must have four RTU licenses for a four-CPU processor CPU/Memory board. Each license covers one CPU processor.
- You cannot migrate CPU licenses issued from one COD system to another COD system.
- You cannot move CPU/Memory boards from a COD system to a non-COD system.

TABLE 6-1 shows the CPU processor and RTU license requirements.

TABLE 6-1 CPU Processor and Right-To-Use (RTU) License Requirements

System Configuration	Number of CPU Processors	Minimum Number of CPU Processors	Minimum Number of Right-To-Use Licenses to Issue at Shipping
Sun Fire 6800 system (configuration 1)	24 CPU processors	8 CPU processors	8
Sun Fire 6800 system system (configuration 2)	12 CPU processors	4 CPU processors	4
Sun Fire 4810 system	12 CPU processors	4 CPU processors	4
Sun Fire 4800 system	12 CPU processors	4 CPU processors	4
Sun Fire 3800 system	8 CPU processors	8 CPU processors	2

COD Software Components

COD software is always included on the system controller and is part of the system controller firmware. In addition, the COD monitoring software is installed as a Sun Management Center add-on module on another workstation that has Sun Management Center 3.0 software installed on it to manage your system.

The Sun Management Center module is part of the mid-range system's platform agent for the Sun Management Center 3.0 release. There are no specific installation or configuration requirements.

TABLE 6-2 describes the system controller COD commands that manage COD on the system controller.

TABLE 6-2 System Controller Capacity on Demand (COD) Commands

COD Function	System Controller Commands	Description
COD license management	`addcodlicense`	Allows you to add COD licenses you purchased.
	`deletecodlicense`	Allows you to remove (delete) COD licenses that are installed.
	`showcodlicense`	Displays all COD licenses stored in the license database for the system.

TABLE 6-2 System Controller Capacity on Demand (COD) Commands *(Continued)*

COD Function	System Controller Commands	Description
COD use	`showcodusage`	Allows you to view the usage of current COD licensed resources.
COD log history	`showcodlog`	Displays the current logging configuration.

For command syntax, command descriptions, and examples, refer to the *Sun Fire 6800/4810/4800/3800 System Controller Command Reference Manual.*

In addition, the following three system controller COD commands are available on the Sun Management Center workstation (TABLE 6-3).

TABLE 6-3 COD System Controller Commands on the Sun Management Center Workstation

COD Function	COD Command	Description
Sends email to Sun Microsystems, Inc.	`sendcodlog`	Sends the COD log file by email to the COD monitoring center at Sun Microsystems, Inc.
Validates COD log file	`checkcodlog`	Checks the COD log file for validity.
Limits size of the COD log file	`rotatecodlog`	Makes sure that the COD log file does not grow very large.

For more information on these commands, including examples, refer to the Sun Management Center 3.0 documentation, which is available online at:

`http://www.sun.com/sunmanagementcenter`

Resource Monitoring

For all mid-range systems, only the CPU processors are a COD resource. RTU licenses are granted and are for a specific system (*not* locked to any individual CPU/Memory board or to a specific CPU processor).

The licensed CPU processors can be used in one domain or by multiple domains. CPU usage is counted only when the CPU processors are part of a fully functioning Solaris operating environment domain.

Entire CPU/Memory boards are assigned to a domain. By default, all of the CPU processors on a CPU/Memory board are brought up by the Solaris operating environment and are counted as “In Use” by COD monitoring software.

If enough RTU licenses are *not* available for all of the CPU processors, this is a COD violation.

Note – Do not bring up additional unlicensed CPU/Memory boards that are meant to be used by the Solaris operating environment.

You can remove the CPU/Memory boards out of the Solaris operating environment configuration in two ways:

- Disabling components (blacklisting) using the system controller software
- Disabling components using the Solaris operating environment

The following procedures describe these steps.

COD Administration Using the Command Line Interface

▼ To Disable Unlicensed Components Using the System Controller Software

- **Disable (blacklist) the excess CPU processors by using the system controller** `disablecomponent` **command:**

```
ds1-sc0:A> disablecomponent component_name [component_name...]
```

For more information on this command, refer to the *Sun Fire 6800/4810/4800/3800 System Controller Command Reference Manual.*

Disabling the CPU processor makes sure that the Solaris operating environment cannot use it. One disadvantage with this approach is that it complicates the procedure of bringing in additional RTU CPU processors.

▼ To Bring In Additional Right-to-Use (RTU) CPU Processors

1. **Install the additional Right-to-Use licenses on the system controller with the** `addcodlicense` **command:**

```
ds1-sc0:A> addcodlicense licensekey
```

   where *licensekey* is the license.

2. **Shut down the Solaris operating environment.**

3. **Remove the blacklisting (enable the component) using the system controller** `enablecomponent` **command:**

```
ds1-sc0:A> enablecomponent component_name [component_name...]
```

   For more information on this command, refer to the *Sun Fire 6800/4810/4800/3800 System Controller Command Reference Manual*.

4. **Bring up the Solaris operating environment.**

▼ To Disable Unlicensed Components Using the Solaris Operating Environment

1. **As root or superuser, type the Solaris operating environment** `psradm(1M)` **command.**

   This command allows you to selectively enable or disable CPU processors in each Solaris operating environment configuration. In this way, the system does not violate COD processor licenses.

2. **Manually run the** `psrinfo(1M)` **command on each domain running the Solaris operating environment.**

   This command determines the total CPU processors currently in use by this domain.

   Aggregate the CPU processors in use by each domain to determine the total CPU processors in use by the system. Determine if the total CPU processors currently in use violates COD processor licensing.

3. **If the total CPU processors currently in use violate COD processor licensing, select the CPU processors to disable.**

Note – It is strongly suggested to keep unlicensed CPU processors out of use with the system controller `disablecomponent` command, instead of using the Solaris operating environment `psradm(1M)` command. For command syntax and other information on the `disablecomponent` command, see "To Disable Unlicensed Components Using the System Controller Software" on page 111.

You can use the Solaris operating environment `psradm (1M)` command to disable the selected processors.

```
# psradm -f proc # [proc #]
```

You can add this command to an `/etc/init.d` script.

4. **Confirm that the CPU processors are offline by using** `psrinfo(1M)`**.**

   COD monitoring does *not* count CPU processors that are offline in the Solaris operating environment.

▼ To Bring In Additional Right-to-Use (RTU) CPU Processors

1. **Install the additional Right-to-Use licenses on the system controller with the** `addcodlicense` **command:**

```
ds1-sc0:A> addcodlicense licensekey
```

   where *licensekey* is the license.

2. **Determine if any CPU processors need to be turned on in the appropriate domain(s).**

3. **Turn on the desired CPU processors using the Solaris operating environment** `psradm(1M)` **command.**

   For example:

```
# psradm -n proc # [proc #]
```

   Disabling unlicensed CPU processors using the Solaris operating environment allows you to bring additional CPU processors online (after obtaining licenses) with the `psradm(1M)` command (instead of having to shut down the domain).

COD Administration Using the Sun Management Center Console

You can use the Console to:

- View the Configuration on Demand (COD) usage log.
- Send a copy of the usage log to Sun Microsystems, Inc., if an authorized Sun service provider asks you to do so.

▼ To View the COD Usage Log

If your system does not have the COD option, your system does not have a COD usage log.

1. **Start the Sun Management Center console (**FIGURE 6-1**).**

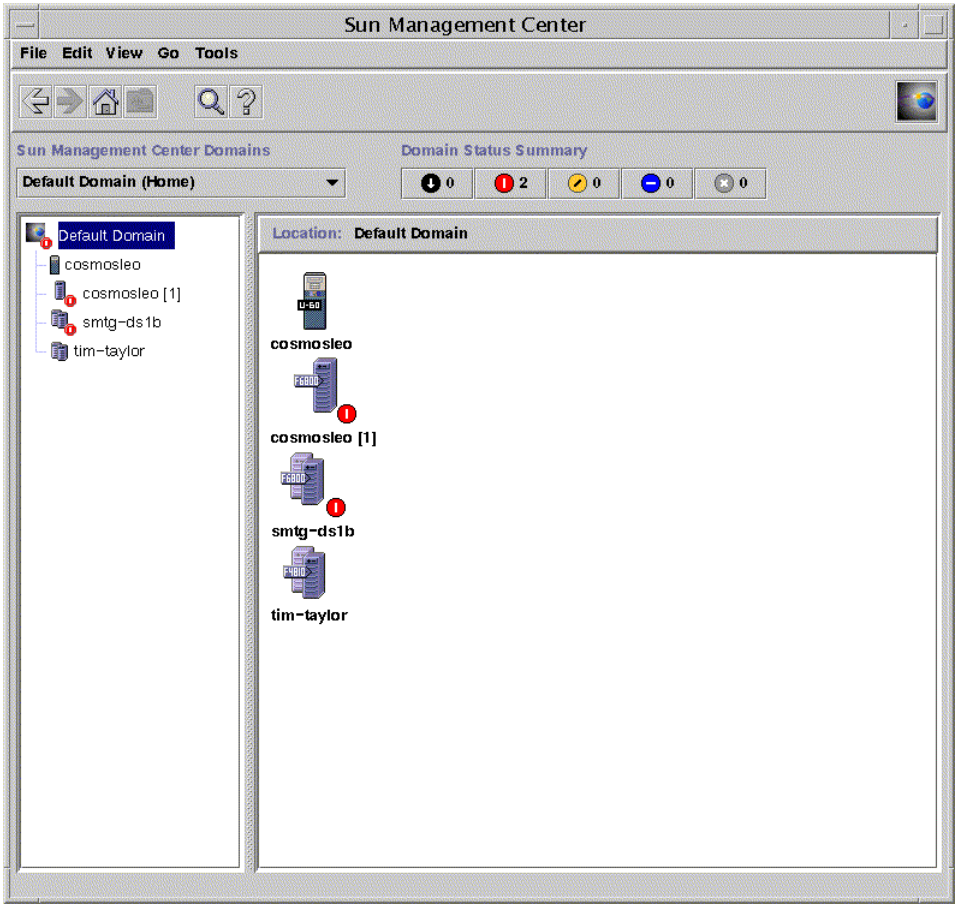

FIGURE 6-1 Sun Management Center Console

2. **In the Sun Management Center console, double-click a Sun Fire 6800, 4810, 4800, or 3800 system icon.**

FIGURE 6-2 shows typical icons for a Sun Fire 6800 system. The icons for the 4810, 4800, and 3800 systems are the same except for a different number in the tag.

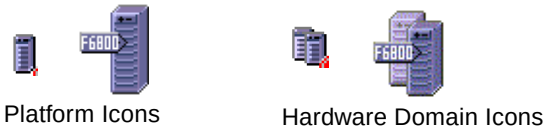

FIGURE 6-2 Sun Fire 6800 Icons

The Details window is displayed (FIGURE 6-3).

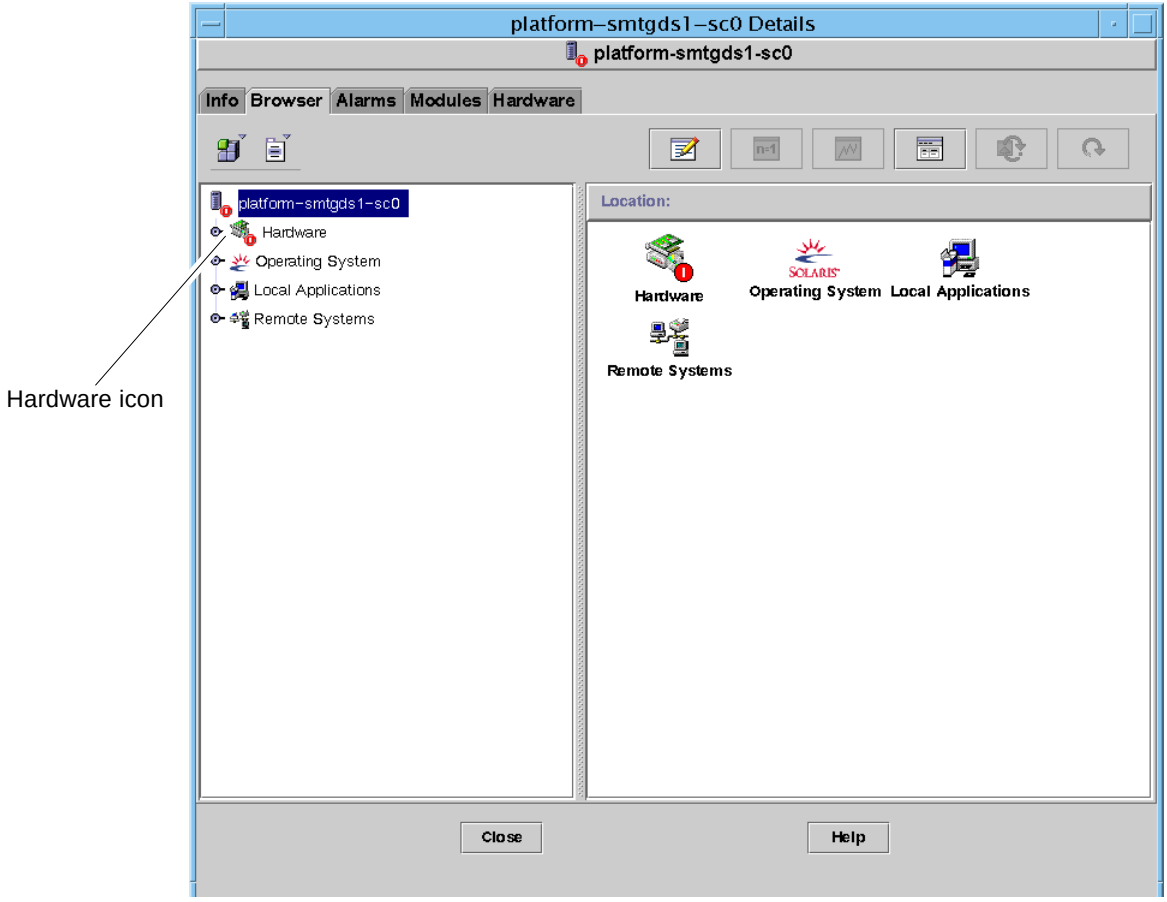

FIGURE 6-3 Details Window

3. **Double-click the Hardware icon to uncompress it.**

   The Platform Administration Module icon and the Capacity on Demand monitoring icon are displayed.

4. **Double-click the Capacity on Demand monitoring icon (**FIGURE 6-4**) to uncompress it.**

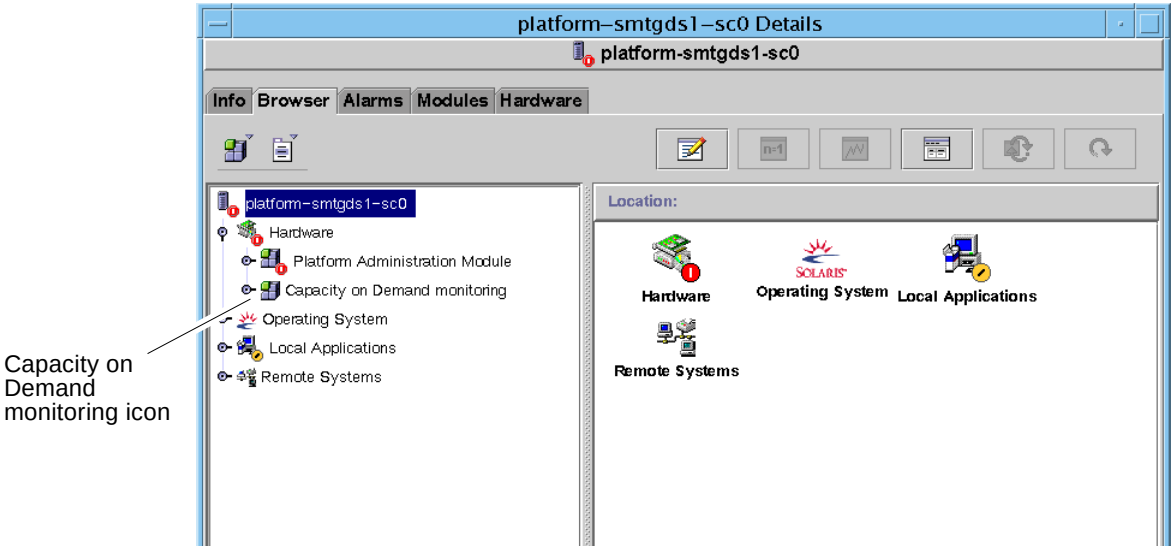

FIGURE 6-4 Capacity on Demand Monitoring Icon

If your system has the COD option, the COD Status, COD Resources, and COD Log Collector icons are displayed (FIGURE 6-5).

If your system does not have the COD option, only the COD Status icon is displayed (FIGURE 6-6). Your system does not have a COD usage log.

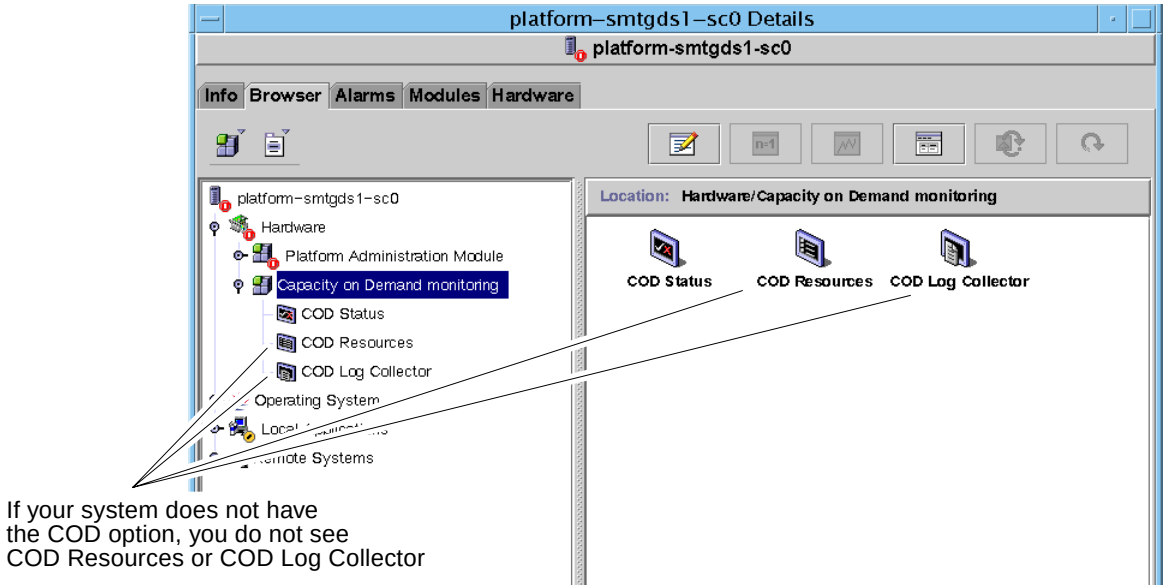

FIGURE 6-5 Capacity on Demand Icons

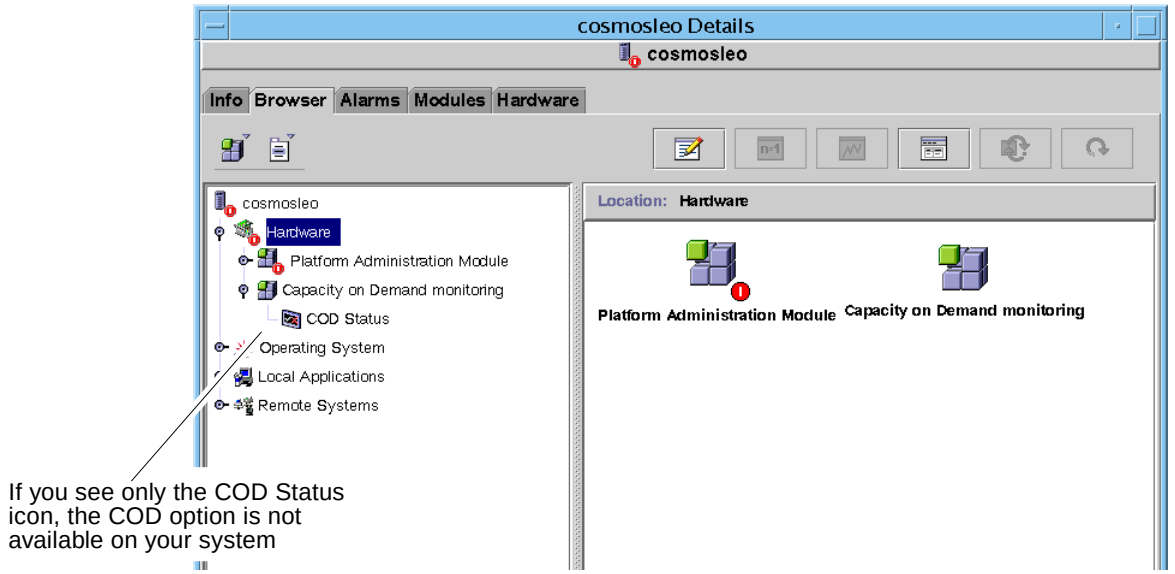

FIGURE 6-6 COD Option Is Not Available

5. **To see the log, right-click COD Log Collector and select View COD Log (**FIGURE 6-7**).**

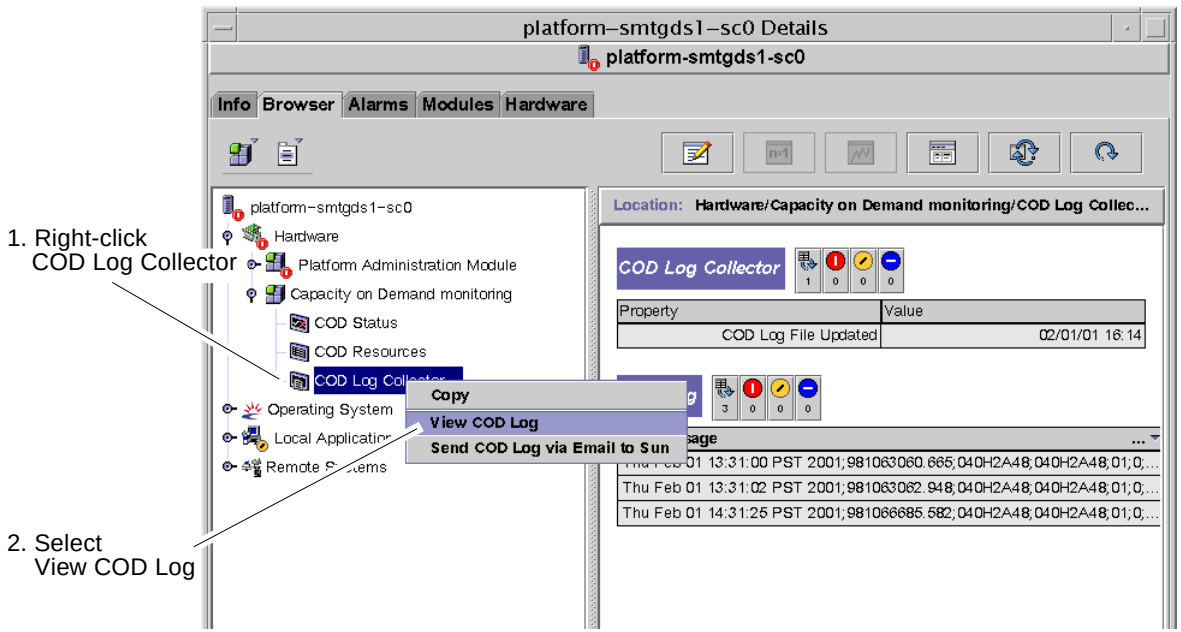

FIGURE 6-7 Selecting View COD Log

The log (FIGURE 6-8) is displayed. Note that the list is in alphabetical order by day of the week, not in chronological order.

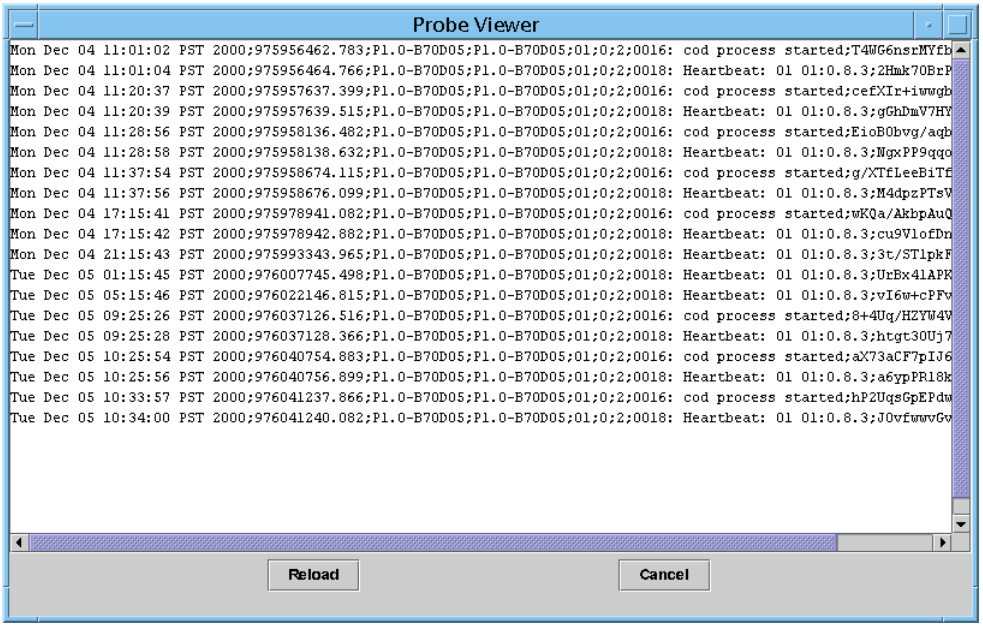

FIGURE 6-8 Typical COD Log

▼ To Send the COD Usage Log to Sun

If your system does not have the COD option, it does not have a COD usage log. Skip this procedure.

1. **Uncompress the COD icon, as shown in Step 1 through Step 4 in the previous section.**

2. **On the left side of the Details window only, right-click the COD Log Collector icon.**

   A pop-up window is displayed (FIGURE 6-9).

Note – Do not click the corresponding icon on the right side of the Details window. The right icon does not support the pop-up window.

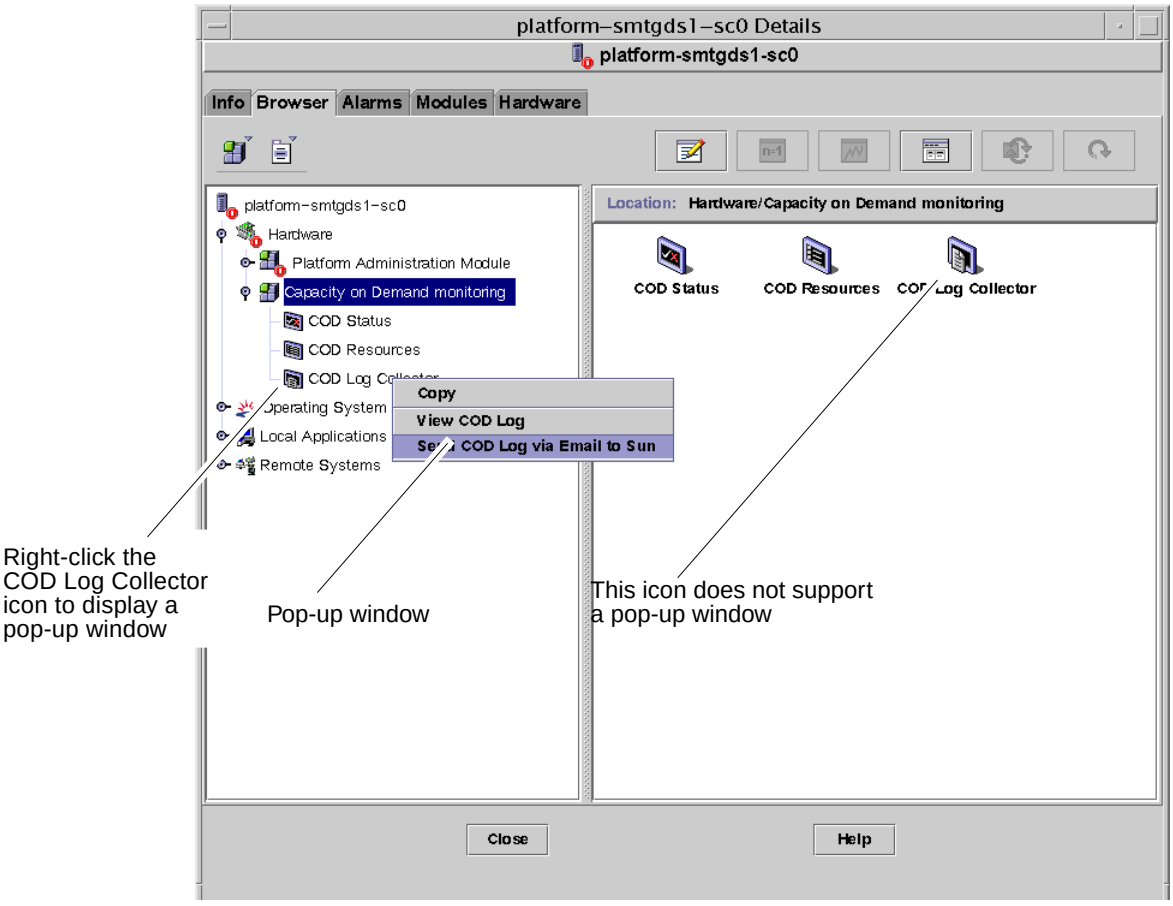

FIGURE 6-9 COD Log Collector Pop-up Window

3. **Select the option, Send COD Log via Email to Sun.**

   After the log is sent, a Probe Viewer window is displayed (FIGURE 6-10).

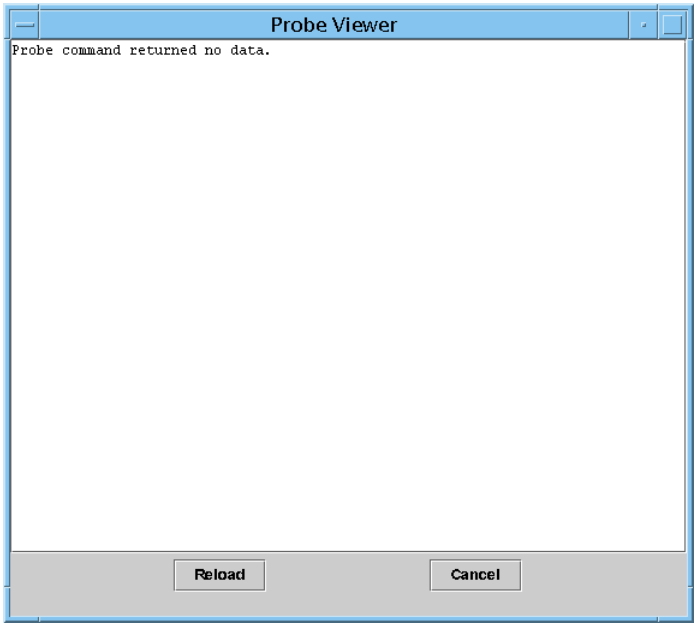

FIGURE 6-10 Probe Viewer Window

4. **Click the Cancel button in the Probe Viewer window to close the window.**

Caution – Do *not* click the Reload button. Doing so sends additional copies of the log unnecessarily.

Glossary

Access Control List List of available boards which can be assigned to a domain.

ACL See *Access Control List*.

Administrative domain A Sun Management Center administrative domain consists of one or more host systems. It should not be confused with other uses of the term "domain" in this book. See also *hardware domain*.

ASIC Application-specific integrated circuit

PUn_path The path to the directory where Sun Management Center software is installed, where *n* is the number of the Platform Update. For example, if Sun Management Center software is installed in `/opt/SUNWsymon`, the directory is `/opt/SUNWsymon/addons/SunFirePltAdmin/sbin`.

Capacity on Demand The feature, also known as COD, consists of extra hardware resources such as CPUs, that are pre-installed at the factory. As your business expands and you need additional processing power, you can purchase additional CPU licenses from Sun and immediately use the pre-installed CPUs, without waiting for delivery or installation. The COD components are monitored by a Sun Management Center 3.0 module, which emails periodic status reports to Sun Microsystems, Inc. If your system has the COD option, you are required to run a Sun Management Center 3.0 monitoring agent continuously on a server or workstation.

COD See *Capacity on Demand*.

DCA Daughter Card Assembly for Paroli

default platform agent When the Sun Management Center 3.0 supplement software is installed, a platform administration module agent is created. This default platform administration module can monitor one Sun Fire 6800, 4810, 4800, or 3800 system. To monitor more than one Sun Fire 6800, 4810, 4800, or 3800 system, you must create an additional platform agent instance for each additional Sun Fire 6800, 4810, 4800, or 3800 system.

Domain See *administrative domain* and *hardware domain*.

Domain administration In this book, "domain administration" refers to the administration of a hardware domain. (See *hardware domain*.) Domain administration uses procedures that deal with hardware resources *within* a host system, as well as with the software and applications running on those hardware resources. In other documents, such as the *Sun Management Center 3.0 Software User's Guide*, the term "domain administration" has a second meaning, which is the administration of a group of multiple host systems. (See *administrative domain*.)

Dynamic reconfiguration Dynamic reconfiguration software is a part of the Solaris operating environment and provides the ability to safely remove or install system boards or compact PCI I/O cards into a system while the Solaris operating environment is running. Dynamic reconfiguration software also provides the ability to transfer system boards or compact PCI I/O cards from one domain to another, while the Solaris operating environment is running.

FT Fan tray

Hardware domain A Sun Fire 6800, 4810, 4800, or 3800 domain is a logical grouping of system boards and other devices that are contained within a single host system. In this book, this type of domain is called a "hardware domain," not to be confused with an "administrative domain." See also *administrative domain*.

Platform administration The management and monitoring of a complete Sun Fire 6800, 4810, 4800, or 3800 system. Platform administration includes the ability to divide the Sun Fire 6800, 4810, 4800, or 3800 system components into multiple hardware domains. Individual hardware domains can be managed and monitored by domain administrators, while the platform administrator retains the ability to manage and monitor all individual hardware domains in addition to the entire platform.

Platform agent instance The default platform administration module can monitor one Sun Fire 6800, 4810, 4800, or 3800 system. To monitor more than one Sun Fire 6800, 4810, 4800, or 3800 system, you must create an additional platform agent instance for each additional Sun Fire 6800, 4810, 4800, or 3800 system.

Proxy A copy of a default platform agent. The default platform administration module can monitor one Sun Fire 6800, 4810, 4800, or 3800 system. To monitor more than one Sun Fire 6800, 4810, 4800, or 3800 system, you must create one platform agent instance or proxy for each additional Sun Fire 6800, 4810, 4800, or 3800 system.

PS Power supply

RP Repeater

SNMP Simple Network Management Protocol

SSC Sun Fire 6800, 4810, 4800, and 3800 system controller

SunMC Sun Management Center

Sun Fire 15K system Same as the Sun Fire 15000 system.

Uncompress To expand an icon to display hidden subsections below the level of that icon.

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