

C120-B012-10ENZ2(A)

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# Machine Administration Guide

## 2.5.1

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# Preface

## Outline of This Product

The Machine Administration software monitors the status of the main unit hardware, reports status changes, and supports failure recovery (hereinafter, the Machine Administration software is referred to as Machine Administration). Using this software allows users to monitor the status of the main unit hardware with ease, and perform easier recovery from failures.

## Outline of This Manual

This manual describes the functions of Machine Administration and how to operate them.

## Purpose

The purpose of this manual is to enable users to monitor the status of the main unit hardware and recover from failures with Machine Administration.

## Intended Readers

This manual is intended for system administrators and customer engineers responsible for monitoring the status of the main unit hardware and recovering from failures.

## Prerequisite Knowledge

This manual is intended for readers who have basic knowledge of the following:

- PRIMEPOWER, GP7000F model
- UNIX

## Organization

This manual has five chapters and two appendixes. Chapters 1, 2, 4, 5, and the appendixes contain information that is common to all models.

Accordingly, these chapters and appendixes contain information not only on the model you are using but also on other models as well.

Chapter 3 contains model-specific information on how to start up models and how to operate them, respectively. For detailed explanations specific to your model, please refer to the corresponding parts in this chapter.

Chapter 1 Overview of Machine Administration

Chapter 2 Machine Administration Functions

Chapter 3 Model Family-Specific Information

Chapter 4 Command Reference

Chapter 5 Messages

Appendix A Overall Configuration Diagrams

Appendix B Disk Drive Replacement

Appendix C Troubleshooting

Appendix D Glossary

## Notation

- Notation for date and time  
In this manual, the notation shown in the table below is used to represent date and time.

Notation	Description
yyyymmdd	yyyy represents the year, mm represents the month, and dd represents the day.
HHMMSS	HH represents the hour, MM represents the minutes, and SS represents the seconds.

- Marks

Mark	Description
 Note	Contains a warning or cautionary message. Make sure you read it carefully.
 See	Provides reference information. Refer to the information when necessary.
 Information	Contains reference information that you will find useful. Read the information when necessary.
 CUI	Provides information on how to perform a CUI menu operation.
 GUI	Provides information on how to perform a GUI menu operation.

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# **Chapter 1 Overview of Machine Administration**

This chapter provides an overview of Machine Administration.

This chapter contains information common to all models.

The functions provided depend on the main unit model to be used.

- The basics of Machine Administration
- Overview of Machine Administration functions
- The Machine Administration Menu

## 1.1 The Basics of Machine Administration

The Machine Administration software monitors the status of the main unit hardware, reports status changes, and supports failure recovery (hereinafter, the Machine Administration software is referred to as Machine Administration).

Using this software allows users to monitor the status of the main unit hardware with ease, and perform easier recovery from failures.

Machine Administration is included in the Enhanced Support Facility (ESF).

Installing ESF in the main unit allows you to use Machine Administration.

## 1.2 Overview of Machine Administration Functions

Machine Administration has the following functions:

- Hardware monitoring functions
- Log data function
- Maintenance guide function
- Automatic power control function
- Hardware operation setting functions
- Firmware management function
- Maintenance program startup function
- Other functions

The functions to be provided depend on the main unit model to be monitored.



For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

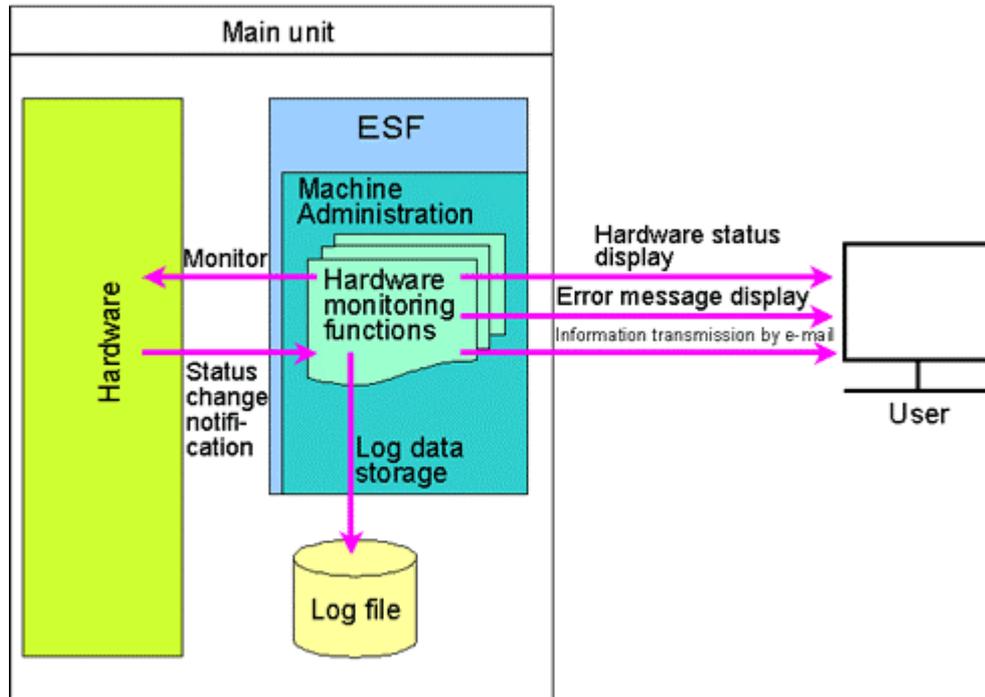
For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

### Hardware monitoring functions

This function is supported by all models.

The hardware monitoring functions display the hardware status, monitor hardware failures and hardware life, and detect signs of hardware-related problems. If the hardware status changes, these functions store log data in a log file and e-mail the information to the set destination. These functions also display error messages on the console.

The figure below outlines the hardware monitoring functions.

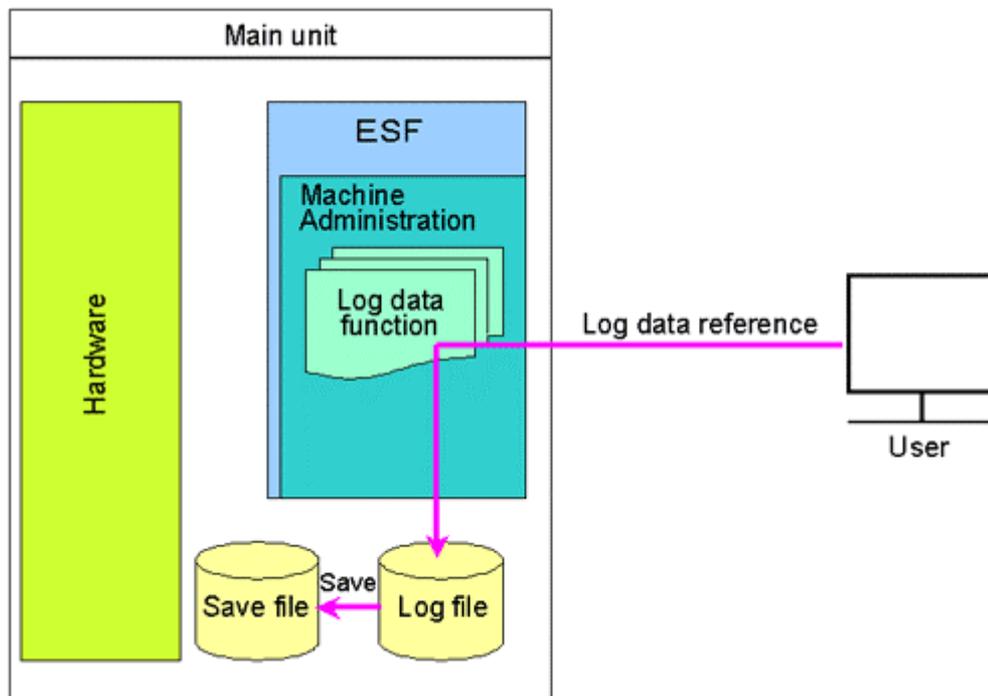


### Log data function

This function is supported by all models.

The log data function references the log data collected by the hardware monitoring functions and saves the information to a save file for analysis.

The figure below outlines the log data function.

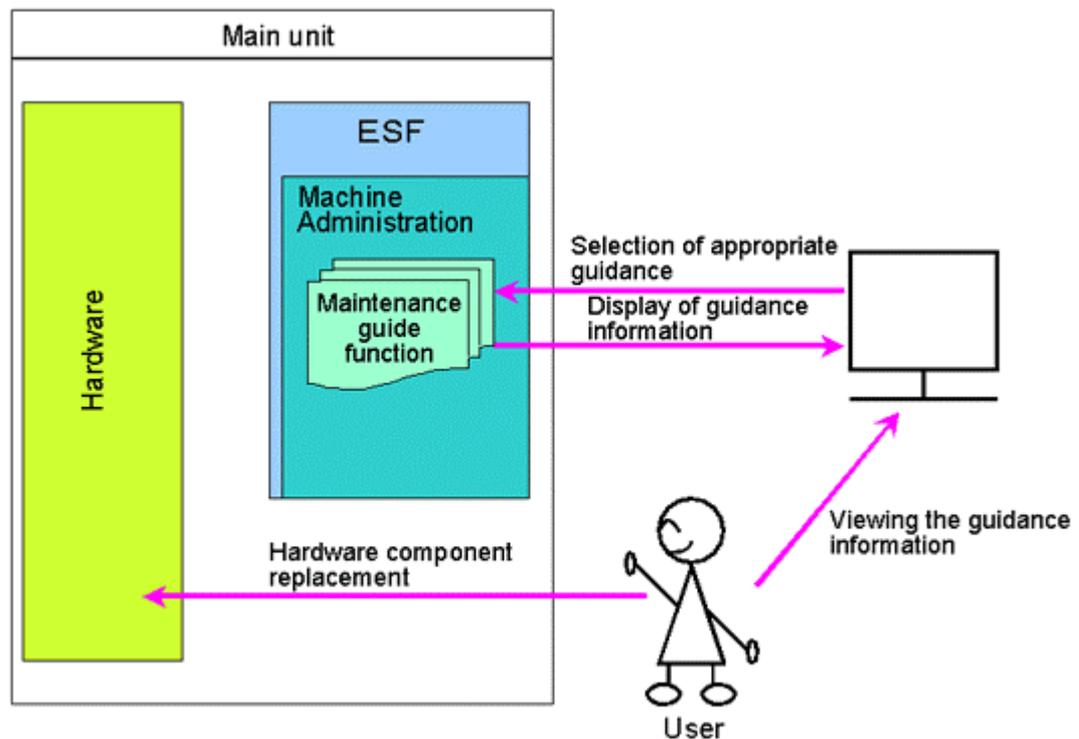


### Maintenance guide function

This function is supported by all models. System Management Console (hereafter SMC) provides the maintenance guide function for the PRIMEPOWER800/1000/2000 model group and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The maintenance guide function displays guidance information on replacing a hardware component where an error has been detected (this type of hardware replacement is hereafter called hot swapping) while operating the main unit. Only hardware components are hot swappable. Moreover, which of the hardware components are hot swappable depends on the main unit model to be monitored.

The figure below outlines the maintenance guide function.



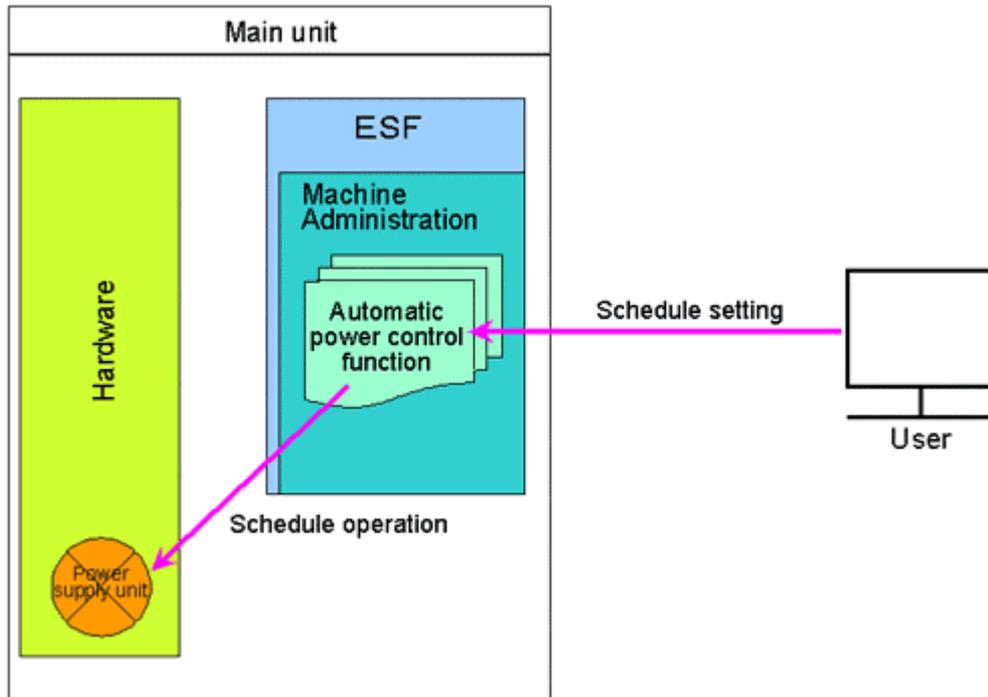
### Automatic power control function

This function is supported by all models except PRIMEPOWER1. SMC provides the automatic power control function for the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

This chapter contains information common to all models.  
The functions provided depend on the main unit model to be used.

The automatic power control function sets up the power on/off schedule of the main unit and automatically controls operation according to the schedule.

The figure below outlines the automatic power control function.

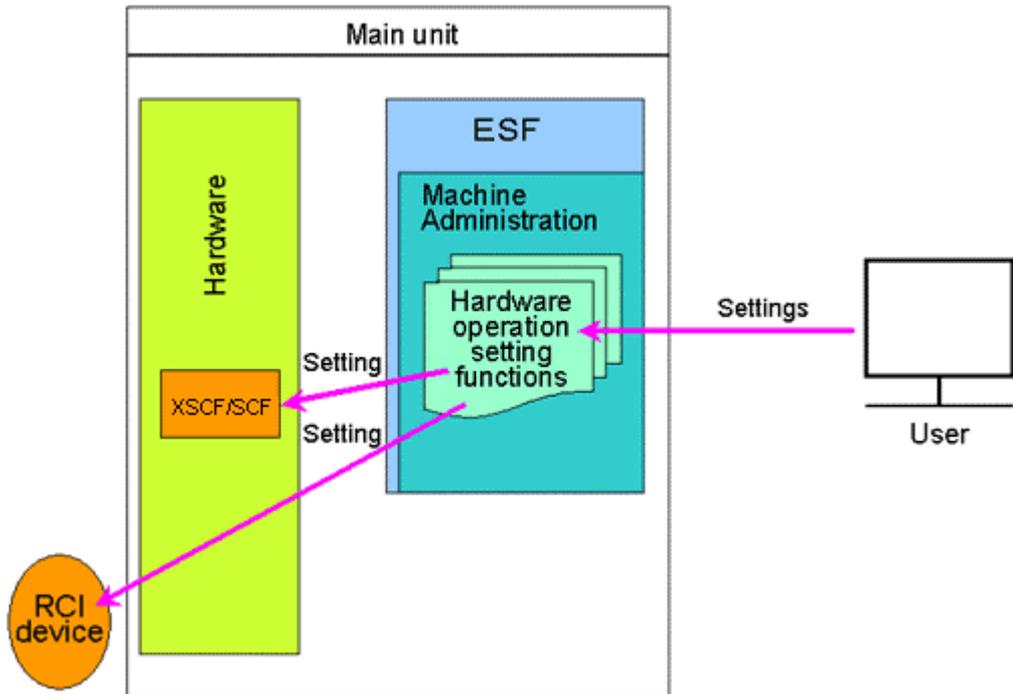


### Hardware operation setting functions

This function is supported by all models except PRIMEPOWER1. SMC provides the Hardware operation setting function for the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups. However, XSCF is a function that is supported only by the PRIMEPOWER250 and 450 model group.

The hardware operation setting functions make the settings (such as XSCF/SCF setting and setting of RCI devices) required to operate the main unit.

The figure below outlines the hardware operation setting functions.

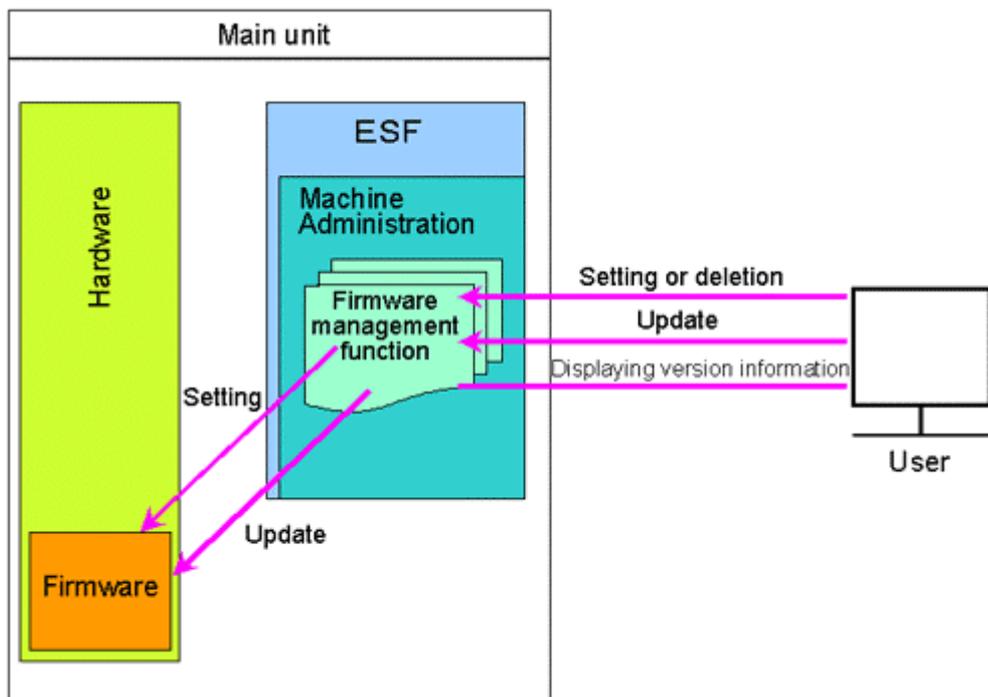


**Firmware management function**

This function is supported by all models. SMC provides the firmware management function for the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The firmware management function registers, deletes, and updates firmware, and displays the firmware version.

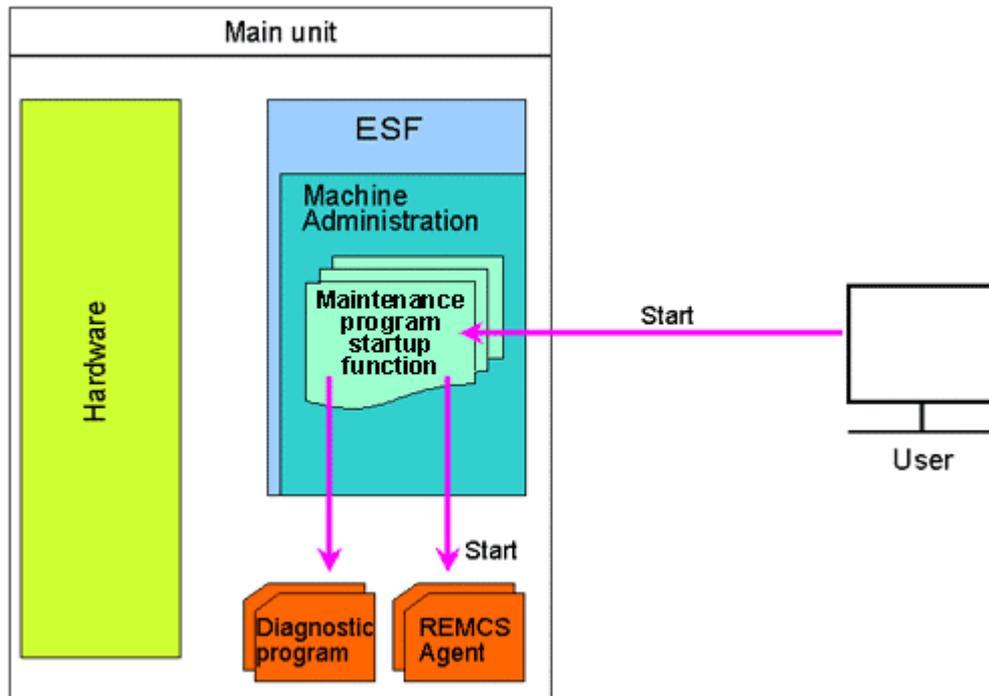
The figure below outlines the firmware management function.



### Maintenance Program Startup function

This function is supported by all models.

This function can also start the diagnostic program and REMCS Agent.  
The figure below outlines the maintenance program startup function.



### Other functions

Machine Administration provides functions for the following other tasks:

- Making the settings for the management server log
- Making the settings for the hardware information display window
- Hardware data extraction function (FST File Transfer)
- Displaying version information

## 1.3 The Machine Administration Menu

Two types of Machine Administration Menus are provided: the CUI menu and the GUI menu.

Type of menu	Outline
CUI menu	Starting Machine Administration with the start command will open displays the CUI menu. In the CUI menu, the keyboard is used to operate the Machine Administration Menu. The CUI menu can be used by all main units.
GUI menu	Starting Machine Administration from the Web-Based Admin View menu displays the GUI menu. With the GUI menu, the mouse is used to operate the Machine Administration Menu. The GUI menu can be used on the following models: <ul style="list-style-type: none"> <li>PRIMEPOWER1/200/400/600/800/1000/2000</li> <li>GP7000F model 200/200R/400/400R/400A/600/600R/1000/2000</li> </ul>  <p><b>Information</b> You can also use system administration software (WebSysAdmin) that provides comparable functionality to the GUI menu.</p>



See

For information about how to start Machine Administration and for examples of CUI and GUI menu windows, see Chapter 3.

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.1, "Starting and Exiting Machine Administration Menu."

For a PRIMEPOWER250/450, see Section 3.2.1, "Starting and Exiting Machine Administration Menu."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.1, "Starting and Exiting Machine Administration Menu."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.1, "Starting and Exiting Machine Administration Menu."



**Information**

- About execution of functions with commands  
Machine Administration provides commands corresponding to individual Machine Administration functions.  
Entering a command enables you to execute the corresponding Machine Administration function. However, depending on the main unit model to be monitored, some of the commands may not be supported.



See

For information about commands, see Chapter 4, "Command Reference."



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## Chapter 2 Machine Administration Functions

This chapter describes the individual functions of Machine Administration.

This chapter contains information common to all models.

The functions provided depend on the main unit model to be used.

- Hardware monitoring functions
- Log data function
- Maintenance guide function
- Automatic power control function
- Hardware operation setting functions
- Firmware management function
- Maintenance program startup function
- Other functions

The functions provided depend on the main unit model to be monitored.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

## 2.1 Hardware Monitoring Functions

This function is supported by all models.

The hardware monitoring functions display hardware status, monitors hardware failures and hardware life, and detects signs of hardware problems. If the hardware status changes, these functions stores log data in a log file and e-mail the information to the set destination. These functions also displays a message on the console.

The hardware monitoring functions include the following two functions:

- Hardware configuration display function
- Hardware monitoring information function



### Information

The PRIMEPOWER1 main unit does not have an LCD. It provides therefore the following functions.

The PRIMEPOWER1 CHECK LED blinks when Machine Administration detects a hardware error. The various types of hardware errors are identified as follows:

Slow blinking

(on: 0.5 second, off: 3.5 seconds): A disk error was detected.

Fast blinking

(on: 0.5 second, off: 0.5 second): A hardware error other than a disk error was detected or a disk error and another error were detected at the same time.

### 2.1.1 Hardware configuration display function

The hardware configuration display function displays the hardware configuration and hardware status.

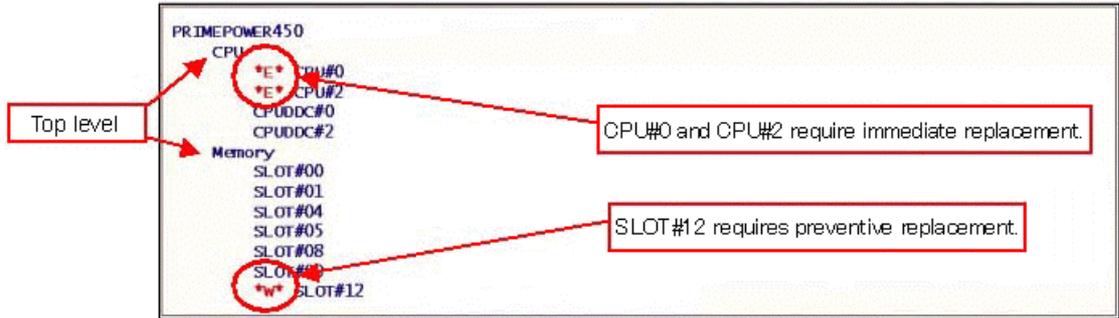
This function is used to install the main unit or during main unit operation.

The table below outlines the hardware configuration display functions.

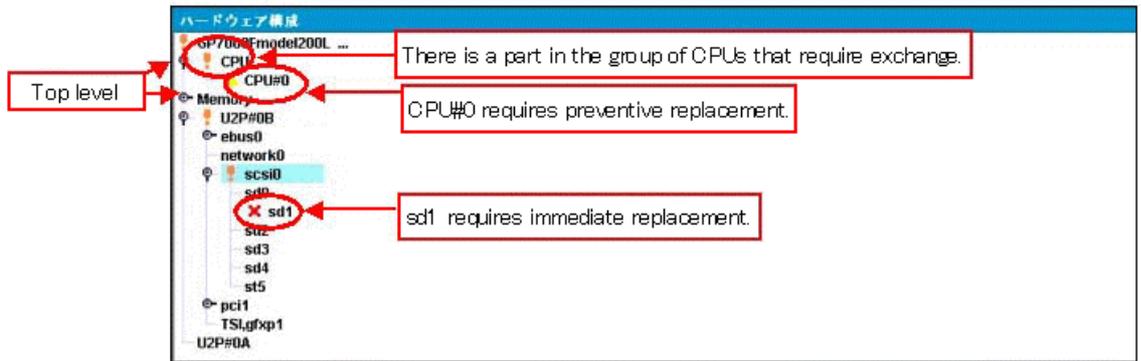
Function name	Outline
Hardware Configuration Display	Displays hardware configuration information and the status of each hardware component. It displays the names of CPUs, memory banks, disks, and batteries. It displays also the symbols representing the status of each hardware component.
Hardware Detailed Configuration Display	It displays the names of CPUs, memory banks, disks, and batteries. It displays detailed hardware information about each component, such as the manufacturer, product name, specifications, operational status, and so on. The displayed items differ depending on the component.

The figures below show examples for the display of hardware configuration information.

- Example of display in the CUI menu



- Example of display in the GUI menu



In the hardware configuration display, the symbols listed in the table below are used to represent the hardware status.

- : Not supported

Display in CUI menu/command	Display in GUI menu	Status	Action taken
*E*	✘	Immediate swapping required	Replace the hardware component immediately.
*W*	⚠	End-of-life replacement required	Prepare to replace the hardware component because end of the set product life is approaching.
		Preventive replacement required	Prepare for replacing the hardware component because preventive replacement is required.
-	⚠	There is a component on one of the subsequent layers of the tree that requires replacement.	Check and replace the appropriate part because there is a component on one of the subsequent layers of the tree that requires replacement.



- For PRIMEPOWER800/1000/2000 and GP7000F model 1000/2000, in terms of the hard disk only,

symbols indicating the hardware status are displayed.

- The devices which are not in use may not be displayed.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.5, "Hardware Configuration."

For a PRIMEPOWER250/450, see Section 3.2.5, "Hardware Configuration."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.5, "Hardware Configuration."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.5, "Hardware Configuration."

## 2.1.2 Hardware monitoring information function

The hardware monitoring information function monitors the system for hardware that is approaching end of service life and detects signs of hardware problems (this kind of monitoring is hereafter called preventive monitoring). This function can also store log data in a log file if the hardware status changes and e-mail the information to the set destination.

However, certain settings have to be made for some hardware components to enable monitoring.

This function is mostly used during operation, but it can also be used during main unit installation or for replacing a hardware component, if required.

### Hardware components that can be monitored

Within the hardware monitoring information function, the type of monitoring available depends on the hardware component.

The table below shows the correspondence between hardware components and the type of monitoring available.

#### When the main unit model is PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R

Y: Can be monitored, -: Not supported

Hardware component	Type of monitoring		
	Error monitoring	Life monitoring	Preventive monitoring
Battery	-	Y	-
Fan (*1)	Y	Y	-
Disk	Y	-	Y
Tape unit	Y	-	-
CPU	Y	-	Y
Memory	Y	-	Y
Power supply unit (*2)	Y	-	-
UPS unit	Y *3	-	-
DTAG	Y	-	-
PCI	Y	-	-

Hardware component	Type of monitoring		
	Error monitoring	Life monitoring	Preventive monitoring
Bus	Y	-	-
TTY driver	Y	-	-

\*1 The fans of the main unit and expansion file unit are subject to monitoring.

\*2 The power supply units of the main unit and expansion file unit are subject to monitoring.

\*3 Other than PRIMEPOWER1

**When the main unit model is PRIMEPOWER250/450**

Y: Can be monitored, -: Not supported

Hardware component	Type of monitoring		
	Error monitoring	Life monitoring	Preventive monitoring
Battery	-	Y	-
Fan (*1)	Y	Y	-
Disk	Y	-	Y
Tape unit	Y	-	-
CPU	Y	-	Y
Memory	Y	-	Y
Power supply unit (*2)	Y	-	-
UPS unit	Y	-	-
System-board-related	Y	-	-
PCI	Y	-	-
Bus	Y	-	-
TTY driver	Y	-	-
Operator panel	Y	-	-
RCI-connected unit	Y	-	-

\*1 The fans of the main unit and expansion file unit are subject to monitoring.

\*2 The power supply units of the main unit and expansion file unit are subject to monitoring.

**When the main unit model is PRIMEPOWER650/850/900/1500/2500/HPC2500**

Y: Can be monitored, -: Not supported

Hardware component	Type of monitoring		
	Error monitoring	Life monitoring	Preventive monitoring
Battery	-	Y(*4)	-
Fan (*1)	Y(*3)	Y(*3)	-
Disk	Y	-	Y
Tape unit	Y	-	-
CPU	Y	-	Y
Memory	Y	-	Y

Hardware component	Type of monitoring		
	Error monitoring	Life monitoring	Preventive monitoring
Power supply unit (*2)	Y(*3)	-	-
UPS unit	Y(*4)	-	-
System-board-related	Y(*4)	-	-
PCI	Y	-	-
Bus	Y	-	-
TTY driver	Y	-	-
Operator panel	Y(*4)	-	-
RCI-connected unit	Y(*4)	-	-
PCI-BOX	Y(*4)	-	-
PCI-BOX power supply unit	Y(*4)	-	-

\*1 The fans of the main unit and expansion file unit are subject to monitoring.

\*2 The power supply units of the main unit and expansion file unit are subject to monitoring.

\*3 Other than the main unit of PRIMEPOWER900/1500/2500/HPC2500

\*4 Only PRIMEPOWER650/850

**When the main unit model is PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000**

Y: Can be monitored, -: Not supported

Hardware component	Type of monitoring		
	Error monitoring	Life monitoring	Preventive monitoring
Disk	Y	-	Y
Tape unit	Y	-	-
CPU	Y	-	Y
Memory	Y	-	Y
PCI	Y	-	-
Bus	Y	-	-
TTY driver	Y	-	-

**Mechanism of hardware monitoring information collection**

The figure below shows the mechanism for hardware monitoring information collection.



Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Management of Hardware Error Events	<p>Searches for and displays faulty components in the main unit and the contents of errors.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Date</li> <li>• Time</li> <li>• Type of unit</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>	-
Battery Life Monitoring	<p>Monitors the battery life.</p> <p>The following Battery Life Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Battery Life Information Lists battery life information.</li> <li>• Adding Battery Life Information Adds a new battery life information setting.</li> <li>• Setting Battery Life Information Changes battery life information.</li> <li>• Deleting Battery Life Information Deletes a battery life information setting.</li> <li>• Settings for Battery Life Related Notifications Sets whether to report changes in the battery status. Sets the time period of replace notification.</li> </ul> <p>Set up battery life monitoring when installing the main unit or when replacing the battery.</p>	*1 (Customer engineer)
Fan Monitoring	<p>Monitors fan life and fan errors.</p> <p>The following Fan Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Fan Monitoring Information Lists fan monitoring information.</li> <li>• Setting Fan Monitoring Information Sets or changes fan monitoring information.</li> <li>• Setting Fan Monitoring Notification Sets whether to report changes in the fan status. Sets the time period of replace notification.</li> </ul> <p>All connected fans are automatically monitored when the main unit is started. Set up fan monitoring when replacing the fan.</p>	*1 (System administrator)

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Disk Monitoring	<p>Monitors disk errors and performs preventive monitoring.</p> <p>The following Disk Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Disk Monitoring Information Lists disk monitoring information.</li> <li>• Setting Disk Monitoring Information Sets or changes disk monitoring information.</li> <li>• Setting Disk Monitoring Notification Sets whether to report changes in the disk status.</li> </ul> <p>All connected disks are automatically monitored when the main unit is started.</p>	<p>*1 (System administrator)</p>
Tape Unit Monitoring	<p>Monitors tape unit errors and performs cleaning request monitoring.</p> <p>The following Tape Unit Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Tape Unit Monitoring Information Lists tape unit monitoring information.</li> <li>• Setting Tape Unit Monitoring Information Sets or changes tape unit monitoring information.</li> <li>• Setting Tape Unit Monitoring Notification Sets whether to report changes in the tape unit status.</li> </ul> <p>All connected tape units are automatically monitored when the main unit is started.</p>	<p>*1 (System administrator)</p>
CPU Monitoring	<p>Monitors CPU errors and performs preventive monitoring for CPU errors.</p> <p>The following CPU Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying CPU Monitoring Information Lists CPU monitoring information.</li> <li>• Setting CPU Monitoring Information Sets or changes CPU monitoring information.</li> <li>• Setting CPU Monitoring Notification Sets whether to report changes in the CPU status.</li> </ul> <p>All CPUs are automatically monitored when the main unit is started.</p>	<p>*1 (System administrator)</p>

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Memory Monitoring	<p>Monitors memory errors and performs preventive monitoring for memory errors.</p> <p>The following Memory Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Memory Monitoring Information Lists memory monitoring information.</li> <li>• Setting Memory Monitoring Information Sets or changes memory monitoring information.</li> <li>• Setting Memory Monitoring Notification Sets whether to report changes in the memory status.</li> </ul> <p>Memory is automatically monitored when the main unit is started.</p>	<p>*1 (System administrator)</p>
Power Supply Unit Monitoring	<p>Monitors power supply unit errors.</p> <p>The following menu items for power supply unit monitoring are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Power Supply Unit Monitoring Information Lists power supply unit monitoring information.</li> <li>• Setting Power Supply Unit Monitoring Information Sets or changes power supply unit monitoring information.</li> <li>• Setting Power Supply Unit Monitoring Notification Sets whether to report changes in the power supply unit status.</li> </ul> <p>The power supply unit is automatically monitored when the main unit is started.</p>	<p>*1 (System administrator)</p>
UPS Monitoring	<p>Monitors UPS errors.</p> <p>The following UPS Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying UPS Monitoring Information Lists UPS monitoring information.</li> <li>• Setting UPS Monitoring Information Sets or changes UPS monitoring information.</li> <li>• Setting UPS Monitoring Notification Sets whether to report changes in the UPS status.</li> </ul> <p>The UPS is automatically monitored when the main unit is started.</p>	<p>*1 (System administrator)</p>

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Degradation Monitoring	<p>Monitors hardware degradation.</p> <p>Monitors whether an error occurred in diagnosis of hardware components such as memory or an adapter when the main unit is initialized.</p> <p>The following Degradation Monitoring menu items are provided:</p> <ul style="list-style-type: none"> <li>• Displaying Degradation Monitoring Information Lists degradation monitoring information.</li> <li>• Setting Degradation Monitoring Notification Sets whether to report degradation start.</li> </ul> <p>If an error is detected when the main unit is initialized, Setting Degradation Monitoring Information is required.</p> <p>If an error is detected during degradation, Machine Administration sends an e-mail to report degradation start to the selected destination, isolates the faulty component, and starts degradation.</p>	<p style="text-align: center;">*1 (System administrator/ customer engineer)</p>
Setting Monitoring Notification Information	<p>Sets information that has to be sent by e-mail to the selected destination to report any changes in the status of each hardware component.</p> <p>The following menu items are provided for setting monitoring information to be reported:</p> <ul style="list-style-type: none"> <li>• Output to the console Sets whether to report changes in each hardware status to the console.</li> <li>• Setting System Administrator Notification Makes settings such as about the destination to be used to send reports to the system administrator by e-mail.</li> <li>• Setting CE Notification Makes settings such as about the destination to be used to send reports to the customer engineer by e-mail.</li> </ul>	<p style="text-align: center;">Y (System administrator)</p>
Notification Test	<p>Issues a test log for the notification test and checks whether the log data is reported via XSCF mail and Machine Administration mail. The following report levels can be issued:</p> <ul style="list-style-type: none"> <li>• ALARM</li> <li>• WARNING</li> <li>• NOTICE</li> </ul>	<p style="text-align: center;">-</p>

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Saving/Restoring Hardware Monitoring Information	<p>Saves and restores hardware monitoring information.</p> <p>The following menu items are provided for saving/restoring hardware monitoring information:</p> <ul style="list-style-type: none"> <li>• Saving Hardware Monitoring Information Saves hardware monitoring information to any file.</li> <li>• Restoring Hardware Monitoring Information Restores the saved hardware monitoring information to the main unit.</li> </ul> <p>Save and restore hardware monitoring information when reinstalling the main unit.</p>	-

### 2.1.3 Resetting of Monitoring Information

If a part was replaced or hardware was removed with the power to the main unit turned off, Machine Administration monitoring information needs to be reset.

To reset the Machine Administration monitoring information, use the CUI menu or enter the following commands:

- If a part was replaced:  
# /usr/sbin/FJSVmadm/resethardstat unitname
- If hardware was removed:  
# /usr/sbin/FJSVmadm/resethardstat unitname -d



See See section 4.20, "resethardstat (1M)."

## 2.2 Log Data Function

This function is supported by all models.

The log data function references the log data collected by the hardware monitoring function and saves the information to a save file for analysis.

### How to read the table

- The following table shows the names of main units corresponding to A to F.

Main unit	Model name of main unit
A	PRIMEPOWER1
B	PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R
C	PRIMEPOWER250/450
D	PRIMEPOWER650/850
E	PRIMEPOWER800/1000/2000, GP7000F model 1000/2000
F	PRIMEPOWER900/1500/2500/HPC2500

### Log data

The log data that can be referenced is classified into five types.

Which log data can be referenced depends on the main unit model to be monitored.

The table below lists the log data that can be referenced for each main unit model.

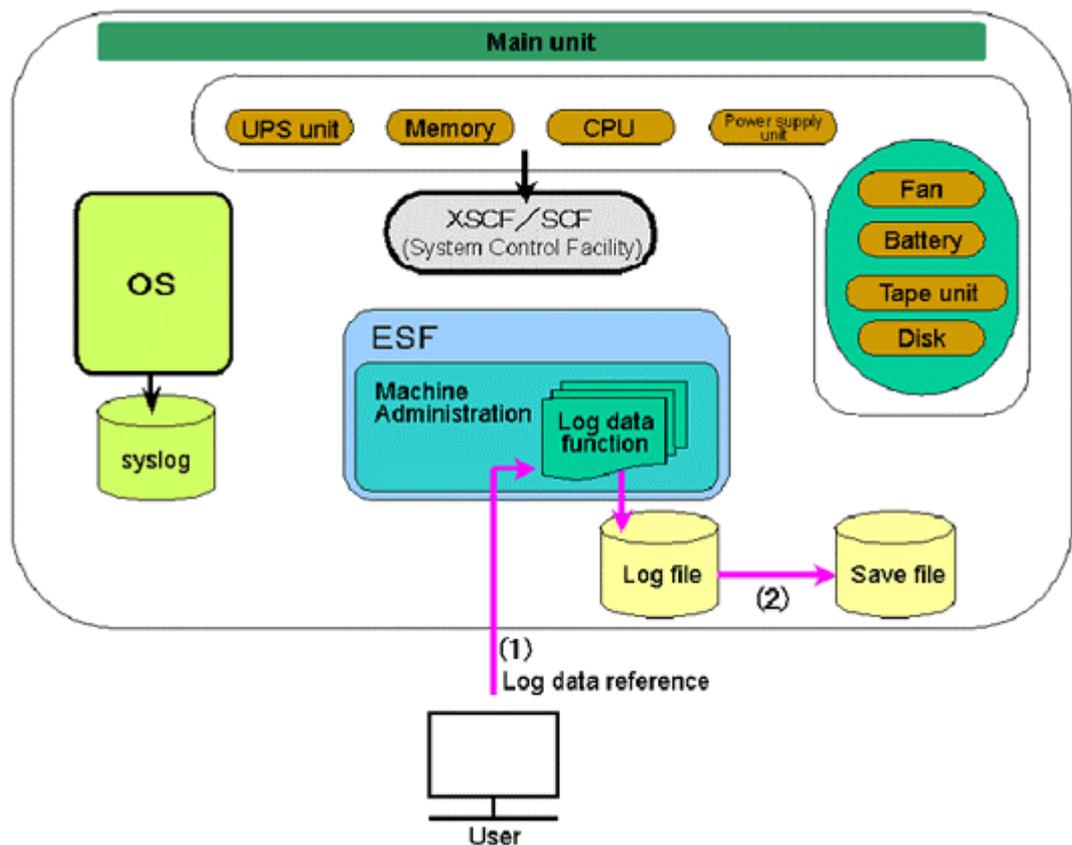
Y: Supported, -: Not supported

Log data	Main unit				Remarks
	A/B	C	D/F	E	
Message Log	Y	Y	-	Y	Log data related to messages displayed on the console
OS Message Log	-	-	Y	-	
Disk Error Information	Y	-	-	Y	
Memory Error Information	Y	-	-	-	
Machine Administration Monitoring Log	Y	-	-	Y	Log data related to hardware component errors
Hardware error log	-	Y	Y	-	
SCF Error Log	Y	-	-	-	
Thermal Error Log	Y	-	-	-	
Fan Error Log	Y	-	-	-	
Power Error Log	Y	-	-	-	
Disk Error Statistics Information	Y	Y	Y	Y	Count of disk I/O retry messages
Power Log	Y	Y	Y *1	-	Log data related to on/off operation of power supply unit
Power-failure/Power-recovery log	Y	-	-	-	
Report log	-	-	Y	-	Log data related to events generated while hot swapping hardware or events generated by the SCF

\*1: PRIMEPOWER650/850 only

### Mechanism of log data function

The figure below shows the mechanism of the log data function.



(1)	References the log data stored in the log file.
(2)	Saves log data from the log file to the save file.

### Outline of Log data function

The table below outlines log data functions.

Available log data menus depend on the main unit model to be monitored.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Function name	Outline
Message Log	<p>Searches for and displays log data related to the messages sent to the system administrator or customer engineer.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Current Display Range Settings</li> <li>• Time</li> <li>• Retrieval character string</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>
Operating System Message Log	<p>Searches for and displays log data related to operating system messages.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Date range</li> <li>• Time range</li> <li>• Retrieval character string</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>
Disk Error Information	<p>Displays log data related to disk errors.</p> <p>Disk error information is the log data extracted from the message log.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Retrieval character string</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>
Memory Error Information	<p>Searches for and displays log data related to memory errors.</p> <p>Memory error information is the log data extracted from the message log.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Retrieval character string</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>
Machine Administration Monitoring Log	<p>Searches for and displays all the log data (e.g., hardware error monitoring information, life monitoring information, preventive monitoring information, hot swapping log) collected by Machine Administration.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Date range</li> <li>• Time period</li> <li>• Retrieval character string</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>
Hardware Error Log	<p>Searches for and displays log data related to hardware errors.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Date range</li> <li>• Time range</li> <li>• Unit selection</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>

Function name	Outline
SFC Error Log	<p>Searches for and displays all the error log data detected by SCF.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Log type (all errors detected by SCF Log, Watchdog Monitoring Alarm Log, and OBP/POST Log)</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> <li>• Display format</li> </ul>
Thermal Error Log	<p>Searches for and displays log data related to thermal errors.</p> <p>The thermal error log contains the log data extracted from the SCF error log.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> <li>• Display format</li> </ul>
Fan Error Log	<p>Searches for and displays log data related to fan errors.</p> <p>The fan error log contains the log data extracted from the SCF error log.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> <li>• Display format</li> </ul>
Power Error Log	<p>Searches for and displays log data related to power errors.</p> <p>The power error log contains the log data extracted from the SCF error log.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> <li>• Display format</li> </ul>
Disk Error Statistics Information	<p>Displays the total count of disk I/O retry messages per single day. The disk can be selected by entering the disk name or by selecting the disk name from a list.</p>
Power Log	<p>Searches for and displays log data related to the power supply unit.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>
Power-failure/ Power-recovery Log	<p>Searches for and displays log data related to power failures and power recovery.</p> <p>The power-failure/power-recovery log contains the log data extracted from the SCF error log and power log.</p> <p>The following search conditions are used:</p> <ul style="list-style-type: none"> <li>• Display range</li> <li>• Time period</li> <li>• Order of display (in reverse chronological order, in chronological order)</li> </ul>

Function name	Outline
Report Log	Searches for and displays log data related to reports. The following search conditions are used: <ul style="list-style-type: none"><li>• Date Range</li><li>• Time Range</li></ul>

Menu item/ function name	Outline
Save Log Data to a File	<p>Saves a variety of log data to any save file.</p> <p>The following menu items are provided for the log data that can be saved.</p> <ul style="list-style-type: none"> <li>• Message Log</li> <li>• Display Hardware Error Log</li> <li>• Machine Administration Monitoring Log</li> <li>• SCF Error Log</li> <li>• Power Log</li> <li>• Hardware Event Log (*1)</li> <li>• Machine Administration Event Log (*2)</li> <li>• Machine Administration Error Log (*3)</li> </ul> <p>The save file is created in tar format and compressed by compress.</p>
Collecting System Information (available on CUI menu only)	<p>Collects system information and outputs it to a file.</p> <p>The following system information can be collected.</p> <ul style="list-style-type: none"> <li>• Hardware configuration and software configuration</li> <li>• Environment setting</li> <li>• Log data and operating status file</li> <li>• Command execution result information</li> </ul>

\*1 Hardware Event Log

The hardware event log contains log data related to the events generated while hot swapping hardware or events generated by the SCF. This log data is the same as the log data in the report log.

Detailed information related to these events is not saved.

The hardware event log can be used to save log data but cannot be referenced.

\*2 Machine Administration Event Log

The Machine Administration event log contains log data for a Machine Administration operation history.

The Machine Administration event log can be used to save log data but cannot be referenced.

This log comprises the information that customer engineers use.

\*3 Machine Administration Error Log

The Machine Administration error log contains log data on the errors that occurred when Machine Administration was in operation.

The Machine Administration error log can be used to save log data but cannot be referenced.

This log comprises the information that customer engineers use.

## 2.3 Maintenance Guide Function

This function is supported by all models. SMC provides the maintenance guide function for the PRIMEPOWER800/1000/2000 model group and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The maintenance guide function displays guidance information for replacing a hardware component where an error was detected. Only hardware components are hot swappable. Hot swappable hardware components also depend on the main unit model to be monitored.

The table below outlines maintenance guide functions.

The available menu items depend on the main unit model to be monitored.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Function name	Outline
The Faulty Hard Disk Drive Replacement (Hot Swap)	Allows replacement of disk drives without stopping system operation.
Preventive Maintenance of the Hard Disk Drive (Hot Swap)	Allows preventive replacement of disk drives based on checking the frequency of error occurrence such as retries. Allows hot swapping without stopping system operation.
Include the Hard Disk Drive after the Cold Maintenance	Displays guidance information for resetting data and the mounting operation after replacement was performed with system operation stopped.
Power Supply Unit of Main Cabinet	Displays guidance information for hot swapping of the power supply unit of the main cabinet (main unit).
Fan Unit of Main Cabinet	Displays guidance information for hot swapping of the fan unit of the main cabinet (main unit).
Power Supply Unit of Expansion Cabinet	Displays guidance information for hot swapping of the power supply unit of the expansion cabinet (file unit).
Power Supply Unit of RCI Device	
Fan Unit of Expansion Cabinet	
Fan Unit of RCI Device	Displays guidance information for hot swapping of the fan unit of the expansion cabinet (file unit).

## 2.4 Automatic Power Control Function

This function is supported by all models except PRIMEPOWER1. SMC provides the automatic power control function for the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The automatic power control function sets the power on/off schedule of the main unit and automatically controls operation according to the schedule. Machine Administration provides two types of menu for automatic power control: the CUI menu and the GUI menu. The tables below show these two menus. The automatic power control menus available depend on the main unit model to be monitored.



See

For a PRIMEPOWER200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

For the automatic power control function of GP7000F model 1000/2000 and PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500, refer to the following manual: "System Console Software User's Guide"

### CUI menu

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Menu item/ function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Start Schedule	Starts schedule operation. When schedule operation is started, the operating status enters the "Started" state.	-
Stop Schedule	Stops schedule operation. When schedule operation is stopped, the operating status enters the "Inactive" state.	-
Add Schedule Entry	Sets a daily schedule, weekly schedule, and monthly schedule.	*1 (System administrator)
Add Holiday	Sets a holiday schedule.	*1 (System administrator)
Select and Delete Schedule Entries	Deletes an optional schedule.	-

Menu item/ function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Delete all	Delete all schedules.	-
List Schedule Entries	Lists all schedules (holiday schedule, specific day schedule, daily schedule, weekly schedule, and monthly schedule).	-
Show Status of Schedule Entries	Displays the planned execution of automatic power control after the current time.	-

**GUI menu**

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Menu item/ function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Automatic Power Control/Display Related to Automatic Power Control	<p>Displays all schedules.</p> <p>The following information is displayed.</p> <ul style="list-style-type: none"> <li>• Operating Status Displays the operating status of the schedule. Started: Schedule operation has been started. Inactive: Schedule operation has been stopped.</li> <li>• Automatic Power Control Schedule Displays a schedule 30 days ahead.</li> <li>• Power Recovery Entry Mode Displays settings such as whether power is to be recovered.</li> </ul>	-
Automatic Power Control/Schedule Setting	<p>Sets the start and stop of schedule operation.</p> <p>Also sets a daily schedule, weekly schedule, and monthly schedule, etc.</p> <p>The following setting items are used.</p> <ul style="list-style-type: none"> <li>- Day-of-the week setting</li> <li>- Every day setting</li> <li>- Specify-day setting</li> <li>- Holiday setting</li> <li>- Start time</li> <li>- Stop time</li> <li>- Shutdown mode</li> </ul>	Y (System administrator)
Automatic Power Control/Schedule Deletion	Deletes any schedule.	-

<b>Menu item/ function name</b>	<b>Outline</b>	<b>Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).</b>
Automatic Power Control/Power Recovery Mode Setting	Sets power recovery entry mode. If the power supply is turned off for such reasons as a power failure when the main unit is in operation, sets power recovery operation to power-recovery entry mode.	Y (System administrator)
Automatic Power Control/Cluster System Matching	Matches the cluster system schedule with the automatic power control schedule. If an additional cluster system configuration host is installed or a host is swapped, this matching operation is performed as well.	*1 (System administrator)

## 2.5 Hardware Operation Setting Functions

The hardware operation setting functions make the settings (such as XSCF/SCF setting and setting of RCI devices) required to operate the main unit.

These functions include the following four functions:

- XSCF setting function (Only for PRIMEPOWER250 and 450)
- RCI-related setting function
- System-related setting function
- AP-Net setting/test function

### 2.5.1 XSCF setting function

This function is supported only by PRIMEPOWER250 and 450.

The XSCF setting function makes XSCF network-related settings for collecting hardware information.

The table below outlines the XSCF functions.

The available menu items depend on the main unit model to be monitored.



See

See Section 3.2.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Network Configuration	Makes settings required to use XSCF LAN. The following network configuration setting items are used. <ul style="list-style-type: none"> <li>- IP address</li> <li>- Subnet mask</li> <li>- Gateway address</li> <li>- XSCF host name</li> <li>- Name server</li> </ul>	*1 (System administrator/ customer engineer)

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
User Account Administration	<p>Makes settings related to XSCF shell user accounts. The following menu items for user account administration are provided.</p> <ul style="list-style-type: none"> <li>• Show User List Lists user account information.</li> <li>• Add User Sets a user account.</li> <li>• Delete User Deletes a user account.</li> <li>• Update Password Sets or changes a user account password.</li> </ul>	<p>*1 (System administrator/ customer engineer)</p>
Console Administration	<p>Makes settings related to XSCF console access control. The following Console Administration menu items are provided.</p> <ul style="list-style-type: none"> <li>• Listing Lists console access control information.</li> <li>• Administration Sets console access control. The following Console Administration menu items are provided. <ul style="list-style-type: none"> <li>– Select Standard Console</li> <li>– Enable/Disable Access Control of Read-only Console</li> <li>– Enable/Disable Access Control of XSCF Remote Control</li> <li>– Auto-disconnect administration of XSCF Remote Control</li> </ul> </li> </ul>	<p>*1 (System administrator/ customer engineer)</p>
XSCF Web Administration	<p>Makes settings related to XSCF Web. The following XSCF Web Administration menu items are provided.</p> <ul style="list-style-type: none"> <li>• Listing Lists Web-related settings.</li> <li>• Administration Makes Web-related settings. The following XSCF Web Administration menu items are provided. <ul style="list-style-type: none"> <li>– Enable/Disable XSCF Web</li> <li>– Select Locale</li> <li>– Appearance of Web Page</li> <li>– Access Control</li> </ul> </li> </ul>	<p>*1 (System Administrator)</p>

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
SNMP Administration	<p>Makes settings related to the XSCF SNMP agent function.</p> <p>The following SNMP Administration menu items are provided.</p> <ul style="list-style-type: none"> <li>• Listing Lists information related to the SNMP agent function.</li> <li>• Administration Makes settings related to the SNMP agent function. The following SNMP Administration menu items are provided. <ul style="list-style-type: none"> <li>– Enable/Disable SNMP</li> <li>– SNMP Management Information</li> <li>– Register Community</li> <li>– Delete Community</li> </ul> </li> </ul>	<p>*1 (System Administrator)</p>
Mail Administration	<p>Makes settings related to the XSCF mail transmission function.</p> <p>The following Mail Administration menu items are provided.</p> <ul style="list-style-type: none"> <li>• Listing Lists mail administration information.</li> <li>• Details Setup Makes settings related to mail.</li> <li>• Test Transmits a test mail.</li> </ul>	<p>*1 (System Administrator)</p>

## 2.5.2 RCI-related setting function

This function is supported by all models except PRIMEPOWER1. SMC provides the RCI-setting function for the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The RCI-related setting function makes settings related to the power/environment control interface. The table below outlines the RCI-related setting functions. The available menu items depend on the main unit model to be monitored.



For a PRIMEPOWER200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Displaying a List of RCI Devices	<p>Displays the RCI status of the main unit and a list of the devices connected to RCI. The following shows the RCI information to be displayed.</p> <ul style="list-style-type: none"> <li>- RCI address</li> <li>- Status</li> <li>- address</li> <li>- pwr</li> <li>- alm</li> <li>- I/F</li> <li>- sys-phase</li> <li>- ctgry</li> <li>- dev-cls</li> <li>- sub-cls</li> <li>- tm-out</li> </ul>	-
Confirming the RCI-connected Units	Blinks the CHECK LEDs of the RCI devices and associates the RCI addresses with the RCI devices.	-
Reconfiguring the RCI Network (RCI Device Addition)	<p>When a new RCI device is connected, sets it up in the RCI network.</p> <p>The time required to complete the setting depends on the number of cabinets connected to the network.</p>	*1 (Customer engineer)
Setting the RCI Host Address	<p>Sets RCI host addresses.</p> <p>Set RCI host addresses so that they are not duplicated.</p>	*1 (Customer engineer)
Initial RCI Network Setup	<p>Performs initial RCI network setup.</p> <p>The time required to complete initial RCI network setup depends on the number of cabinets connected to the network.</p>	*1 (Customer engineer)
Setting the External Equipment Wait Time	When the external power control device is connected to the RCI network, sets the wait time required to prepare the external power control device.	Y (System administrator)
RCI Device Replacement	<p>Performs hot swapping of an RCI device.</p> <p>Note that multiple devices cannot be swapped at one time.</p> <p>Note also that the RCI address may not be taken over if there is an INACT device other than the device to be swapped.</p>	*1 (Customer engineer)

### 2.5.3 System-related setting function

This function is supported by the PRIMEPOWER250/450 model group, the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER650/850/900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. SMC provides the system-related setting function for the PRIMEPOWER800/1000/2000 model group and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The system-related setting function makes settings related to operations of the main unit, external power control device, UPS unit, etc.

The table below outlines the system-related functions.

The available menu items depend on the main unit model to be monitored.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Setting the External Equipment Wait Time	When the external power control device is connected to the RCI network, sets the wait time required to prepare the external power control device.	Y (System administrator)
Setting waiting time for shutdown at power failure	Sets the waiting time that lasts from when the UPS detects a power failure to when it starts operating system shutdown.	Y (System administrator)
Server CHECK-LED Operation	Turns on the CHECK-LED lamp of the main unit (server) to check the location of the main unit.  When the system-related setting function ends, the CHECK-LED lamp goes off.	-
Warm-up Time Administration	Sets the warm-up time of the main unit.  Setting the warm-up time with the main unit installed in a cold region enables operating system startup after the main unit has become stable.	Y (System administrator)

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Extended Interleave Mode	<p>Sets extended interleave mode.</p> <p>Extended interleave mode is a function that improves performance in accessing a contiguous area on memory space.</p> <p>To enable extended interleave mode, it is essential that the system board memory be fully populated, and the capacity of each memory card is equal.</p> <p>Moreover, to enable the settings, you must also restart the main unit.</p> <p>When setting extended interleave mode, consult with the customer engineer.</p>	<p>*1 (System administrator/ customer engineer)</p>

## 2.5.4 AP-Net setting/test function

This function is supported by all models.

The AP-Net setting/test function sets AP-Net hardware configuration information.

The table below lists menu items related to AP-Net setting/test.

The available menu items depend on the main unit model to be monitored.



For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Menu item/ function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Setting Up and Testing the AP-Net	Sets AP-Net hardware configuration information. Also tests the power control test and communication test of the AP-Net cabinet. Execute the AP-Net setting/test function as required.	*1 (Customer engineer)

## 2.6 Firmware Management Function

This function is supported by all models. SMC provides the firmware management function for the PRIMEPOWER800/1000/2000 model group, the PRIMEPOWER900/1500/2500/HPC2500 model group, and the GP7000F model 1000/2000 group. Accordingly, use SMC for these model groups.

The firmware management function makes firmware registration or deletion and updates firmware.

The table below outlines the firmware management functions.

The available menu items depend on the main unit model to be monitored.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
HCP File Operation	Registers or deletes firmware. The following HCP File Operation menu items are provided. <ul style="list-style-type: none"> <li>Show/Delete the Registered HCP Lists registered HCP (firmware) information. Can also delete unnecessary HCP information.</li> <li>Show/Register the Supply HCP Displays HCP information on the HCP CD-ROM or work directory. Can also register HCP information.</li> </ul>	*1 (Customer engineer)
Update BaseBoard Firmware of Main Unit	Updates main unit firmware information. The following Main Unit Firmware Update menu items are provided. <ul style="list-style-type: none"> <li>Show/Update Current HCP Displays information about the firmware that is already applied to the main unit and lists information about registered firmware to be applied to the current environment. Can also apply firmware to the main unit.</li> <li>Update History Displays the update history of main unit firmware.</li> </ul>	-

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Disk Drive Firmware Administration	<p>Updates disk drive firmware.</p> <p>The following Disk Drive Firmware Administration menu items are provided.</p> <ul style="list-style-type: none"> <li>• Display Updateable Disk Drives Lists the registered disk drives whose firmware is to be updated among the connected disk drives.</li> <li>• Display Disk Drive Firmware Update Log Displays the update history of disk drive firmware.</li> <li>• Update Disk Drive Firmware Updates disk drive firmware.</li> </ul>	<p>*1 (System administrator)</p>

## 2.7 Maintenance Program Startup Function

This function is supported by all models.

This function can also start the diagnostic program and REMCS Agent.

The table below outlines maintenance program startup functions.

The available menu items depend on the main unit model to be monitored.



For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Diagnostic Program	Starts the diagnostic program (FJVTS). The diagnostic program is executed to check the hardware status when the main unit is installed or at hot swapping of hardware components.	-
Remote Setup	Starts the REMCS Agent. The REMCS Agent monitors the main unit and supports customer operation by communicating with the support center via the network. Using the REMCS Agent requires separate contract. For information about the contract, call your Fujitsu sales representative.	Y (Note) (System administrator)

Note: Make this setting with the REMCS Agent.



For information about FJVTS, see the following manuals:

*"SunVTS User's Manual"*

*"SunVTS Test Reference Manual"*

*"FJVTS Test Reference Manual"*



See

For information about the REMCS Agent, see the following manual:

*"REMCS Agent Operator's Guide" (C112-B067EN)*

## 2.8 Other Functions

Machine Administration provides functions for the following other tasks:

- Making the settings for the management server log
- Making the settings for the hardware information display window
- Hardware data extraction function (FST File Transfer)
- Displaying version information

The table below outlines other functions.

The available menu items depend on the main unit model to be monitored.



See

For a PRIMEPOWER1/200/400/600 or GP7000F model 200/200R/400/400R/400A/600/600R, see Section 3.1.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER250/450, see Section 3.2.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER650/850/900/1500/2500/HPC2500, see Section 3.3.2, "Main Unit Models and Available Menus."

For a PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000, see Section 3.4.2, "Main Unit Models and Available Menus."

Y : This setting is made at installation of the main unit.

\*1: This setting is made as required.

- : No setting to be made.

Function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Setting of Management Server Log (support of only GUI menu)	<p>Sets information such as log data collection conditions. The following menu items for Setting the Management Server Log are provided.</p> <ul style="list-style-type: none"> <li>• Displaying and Setting Log Collection Interval Displays intervals at which Machine Administration collects log data from the hardware component to be monitored. Can also change the interval settings.</li> <li>• Displaying and Setting Log Size Displays the maximum size of the log data to be collected from the hardware component to be monitored. Can also change the log size settings.</li> <li>• Resetting Log Deletes all the log data collected by Machine Administration. If you use the IP host name used before replacement of the hardware component to be monitored even after replacement of the component, reset the collected log data before replacing the component. If the collected log data is not reset, the log data used after replacement of the hardware component to be monitored is added to the log data used before replacement of the component.</li> </ul>	*1 (System administrator)
Setting of Hardware Information Display Window (support of only GUI menu)	<p>Sets intervals at which log data is reflected in the Hardware Information Display window. The following shows the windows in which log data is reflected.</p> <ul style="list-style-type: none"> <li>• Hardware Configuration window</li> <li>• Hardware Monitoring Information window</li> </ul>	*1 (System administrator)
Hardware data extraction function (FST File Transfer)	<p>Transfers files with Field Support Strategy Solution Tool (FST). The customer engineer in charge uses this menu to collect hardware data such as log data. The system administrator should not use this menu item.</p>	-
Version Information	Displays Machine Administration version information and the applied patch information.	-



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## Chapter 3 Model Family-Specific Information

This Chapter describes how to operate Machine Administration menu.

- PRIMEPOWER1/200/400/600, GP7000F model200/200R/400/400R/400A/600/600R
- PRIMEPOWER250/450
- PRIMEPOWER650/850/900/1500/2500/HPC2500
- PRIMEPOWER800/1000/2000, GP7000F model1000/2000

## 3.1 PRIMEPOWER1/200/400/600,GP7000F model200/200R/400/400R/400A/600/600R

This Section describes how to operate Machine Administration menu.

The operation method for the individual functions is described with the operations used when CUI menus are used.

The functions that can be used only via the GUI menus are described using the GUI menus.

### 3.1.1 Starting and Exiting Machine Administration Menu

This section describes how to start and exit Machine Administration menu.

- Starting Machine Administration Menu
- Exiting Machine Administration Menu
- How to read the Machine Administration Menu

#### 3.1.1.1 Starting Machine Administration Menu

This section describes how to start the CUI menu and GUI menu.

##### CUI menu

###### **CUI** Operation

1. Make sure that the command prompt is displayed on the UNIX screen.
2. Enter the following start command:

```
# /usr/sbin/FJSVmadm/madmin
```

The top menu of the CUI menu opens.



See

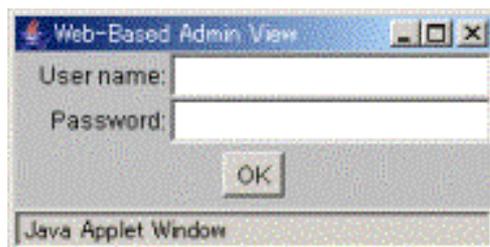
See section 4.11, "madmin (1M)."

##### GUI menu

###### **GUI** Operation

1. Enter `http://<host-name>:8081/Plugin.cgi` as the address in the browser window.

The Web-Based Admin View login window opens.





Note

If the IP address of the server was changed, this setting must be changed as well. For information on the method of changing this setting, see the Section "Changing an IP address on the Public LAN" in the Web-Based Admin View Operation Guide.



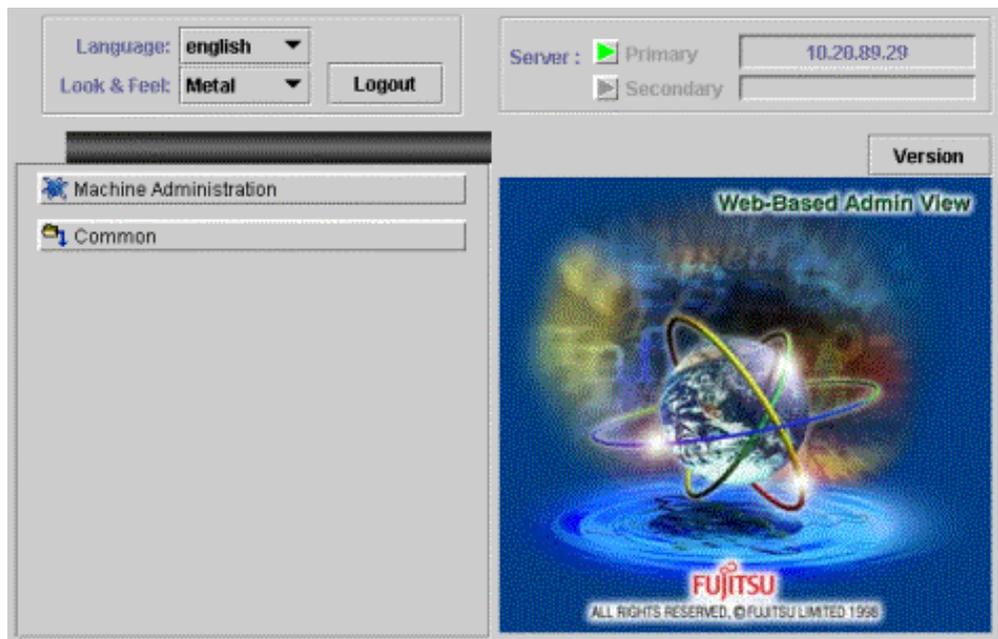
Information

About <host-name> entered as the address in the browser window

If Web-based Admin View cannot be started although a host name was entered in <host-name>, enter the IP address of the business LAN on the secondary management server directly.

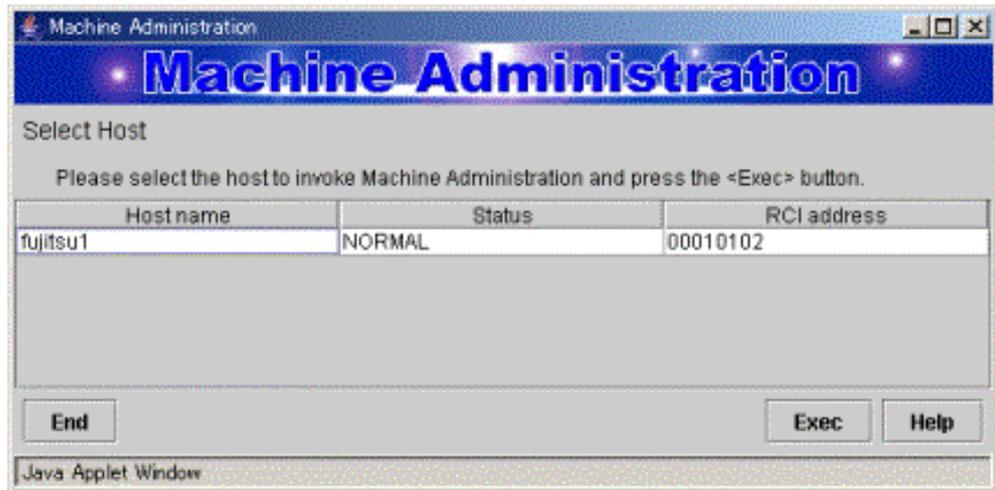
2. Enter your user name and password and click the [Confirm] button.

The Web-Based Admin View menu window opens.



3. Select "Machine Administration" from the Web-Based Admin View menu window.

The Select Host window opens.



<Explanation of the display>

The Host names, status, and RCI addresses are listed which the management server monitors.

The following keywords may appear in the "Status" column:

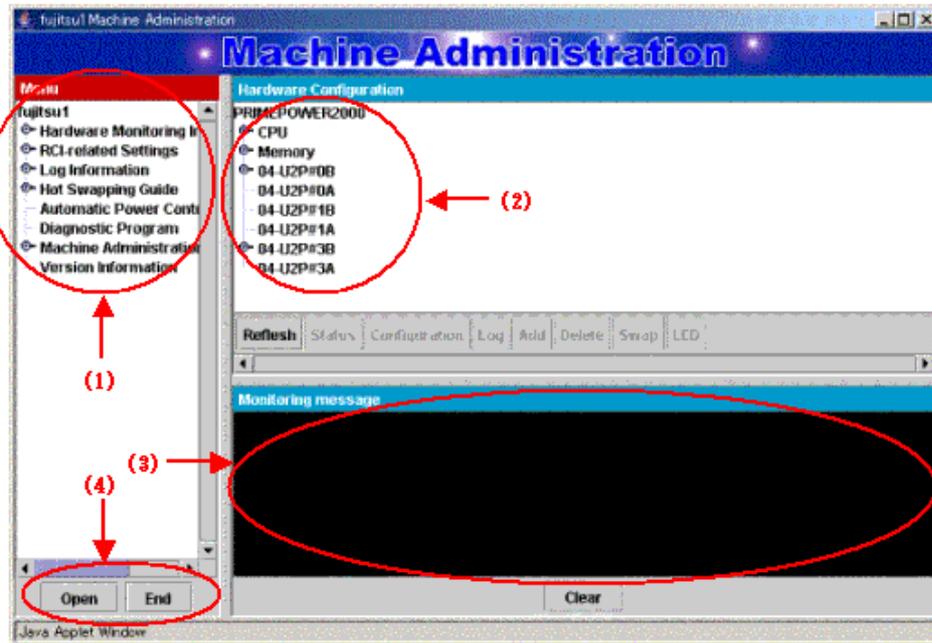
- FATAL : Fatal error
- WARNING: A warning-level error or preventive maintenance event occurred.
- NORMAL : Normal
- DOWN : The host is down or communication with the host is not possible.
- UNKNOWN: The status is unknown



**Note**

- If the appropriate host name is not recognized because it was changed, "DOWN" appears in the Status column.
  - To delete a host name select the host name that you want to delete and click the [Exec] button.  
The selected host name is deleted from the list.
  - If the main unit to be monitored does not support the GUI menu (Web-Based Admin View), "DOWN" or "UNKNOWN" appears in the Status column and the GUI menu is not displayed. In this case, the GUI menu cannot be displayed.
4. Click the "host name" for the host that you want to monitor.
  5. Click the [Exec] button.

The GUI menu of the selected host opens.



### 3.1.1.2 Exiting Machine Administration Menu

This section describes how to close the CUI menu or GUI menu.

#### CUI menu

##### **CUI** Operation

1. Enter the number of "Exit".  
Machine Administration menu exits.

#### GUI menu

##### **GUI** Operation

1. Click the [End] button the GUI menu.  
Machine Administration menu exits and the Select Host window opens again.
2. Click the [End] button in the Select Host window.  
The Web-Based Admin View menu opens again.
3. Click [x] in the upper right of the Web-Based Admin View menu.  
The Web-Based Admin View menu closes.

### 3.1.1.3 How to read the CUI menu

**CUI** The top menu of the CUI menu is shown below.

The following shows the CUI menus corresponding to the main unit model.

**When the main unit model is PRIMEPOWER1/200/400/600 or GP7000F model  
200/200R/400/400R/400A/600/600R**

```
Machine Administration Menu
  1. Hardware Configuration
  2. Hardware Monitoring Information
  3. RCI-related Settings
  4. Log Data
  5. Hot Swapping Guide
  6. Diagnostic Program
  7. Remote Setup
  8. Option Menu
  9. Version Information
 10. Exit
q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select(1-10,q,h):
```

<Explanation of the display>

- (1): Enter the desired item at the location of the cursor.
  - 1-10: To select a menu, enter the menu number.
  - q : If you want to quit the operation, enter "q".
  - h : If you want to display help, enter "h".



Note

Some menu items may be unusable even if they are displayed.



See

See Section 3.1.2, "Main Unit Models and Available Menus."

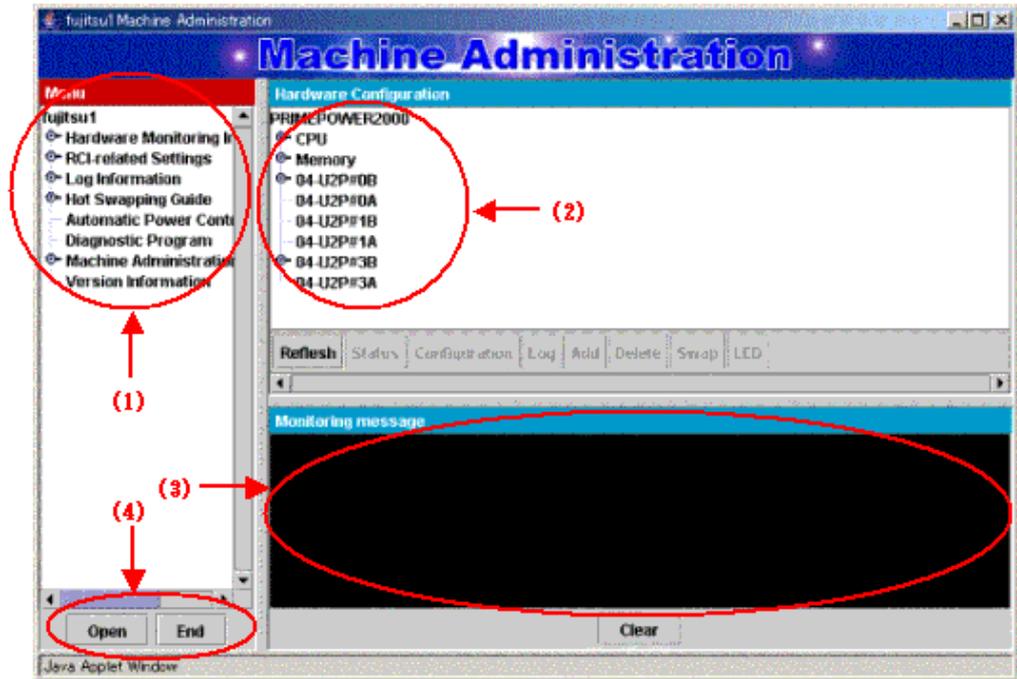
### 3.1.1.4 How to read the GUI menu

#### GUI

The GUI menu is shown below.

In the GUI menu, the main menu consists of the following three areas:

- Menu display area
- Hardware configuration display area
- Monitoring information message display area



<Explanation of the display>

- (1): Menus are displayed in tree format.  
 By default, only the top-level of menus are displayed.  
 Clicking  displays subsequent levels of the menu.  
 Selecting a menu displays the appropriate menu window in another window.
- (2): Hardware configuration is always displayed.  
 It displays the name of each hardware component (such as CPU, memory, and battery), and the symbols representing hardware component in detail.
- (3): If the status of the hardware component to be monitored changes, a message appears in this area.
- (4): The each buttons have the following functions:
- |                         |   |
|-------------------------|---|
| [Open] button:          | Selecting this button enables you to display the new-lower level of the menu for the selected menu item. Selecting the lowest level of the menu displays the appropriate window as a new window.  |
| [End] button:           | Selecting this button ends Machine Administration.  |
| [Clear] button:         | Selecting this button clears the message displayed in the Monitoring message area.  |
| [Refresh] button:       | Selecting this button updates the information displayed in the Hardware Configuration area.   |
| [Status] button:        | Selecting this button displays the status and detailed node information for the node selected in the Hardware Configuration area.   |
| [Configuration] button: | Selecting this button opens the notification settings window for the node selected in the Hardware Configuration area. This button is active only when a battery, UPS unit, fan, power supply unit, disk, memory, CPU or tape unit is selected. |
| [Log] button:           | Selecting this button opens the log information window for the node selected in the Hardware Configuration area. This button is active only when a disk, memory, fan, or power supply unit is selected.   |
| [Add] button:           | Selecting this button opens the addition window for the node selected in  |

- the Hardware Configuration area. This button is active only when a battery is selected.
- [Delete] button: Selecting this button opens the deletion window for the node selected in the Hardware Configuration area. This button is active only when a battery is selected.
- [Swap] button: Selecting this button opens the Hot Swapping Guide window for the node selected in the Hardware Configuration area. This button is active only when a hot swappable disk, power supply unit, or fan is selected.
- [LED] button: Selecting this button opens the Confirming the RCI-connected Units window for the node selected in the Hardware Configuration area. This button is active only when an RCI node is selected.

### 3.1.2 Main Unit Models and Available Menus

In Machine Administration, the menu provided depends on the main unit model to be monitored. The tables below show the relationships between main unit models and available menus.

#### How to read the tables

- The table below shows the meanings of the symbols.

Symbol	Meaning
Y	The appropriate function is available in the CUI menu and GUI menu.
N	The appropriate function is unavailable.
*1	The appropriate function is available only in the CUI menu.
*2	The appropriate function is available only in the GUI menu.
*3	The appropriate function is available in System Management Console.  <i>See</i> For information about System Management Console, see the <i>"System Console Software User's Guide"</i> .
*4	The appropriate function is available but the appropriate menu is unavailable. Log data is collected.

## Main unit models and available menus

Menu name	Main unit		Reference destination of function explanation	Reference destination of operation explanation
	PRIMEPOWER1	PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R		
<b>Hardware Monitoring Function</b>				
Hardware Configuration Display				
Hardware Configuration Display	Y	Y	2.1.1	3.1.5
Hardware Detailed Configuration Display	Y	Y	2.1.1	3.1.5
Hardware Monitoring Information				
Battery Life Monitoring	Y	Y	2.1.2	3.1.6.1
Fan Monitoring	Y	Y	2.1.2	3.1.6.2
Disk Monitoring	Y	Y	2.1.2	3.1.6.3
Tape Unit Monitoring	Y	Y	2.1.2	3.1.6.4
CPU Monitoring	Y	Y	2.1.2	3.1.6.5
Memory Monitoring	Y	Y	2.1.2	3.1.6.6
Power Supply Unit Monitoring	Y	Y	2.1.2	3.1.6.7
UPS Monitoring	Y	Y	2.1.2	3.1.6.8
Degradation Monitoring	Y	Y	2.1.2	3.1.6.9
Setting Monitoring Notification Information	Y	Y	2.1.2	3.1.6.10
Saving/Restoring Hardware Monitoring Information	Y	Y	2.1.2	3.1.6.11
<b>Log Data Function</b>				
Log Data				
Message Log	Y	Y	2.2	3.1.7.1
Disk Error Information	Y	Y	2.2	3.1.7.2
Disk Error Statistics Information	*1	*1	2.2	3.1.7.3
Memory Error Information	Y	Y	2.2	3.1.7.4
Machine Administration Monitoring Log	Y	Y	2.2	3.1.7.5
SCF Error Log	Y	Y	2.2	3.1.7.6
Thermal Error Log	Y	Y	2.2	3.1.7.7
Fan Error Log	Y	Y	2.2	3.1.7.8
Power Error Log	Y	Y	2.2	3.1.7.9
Power-failure/Power-recovery log	Y	Y	2.2	3.1.7.10
Power Log	Y	Y	2.2	3.1.7.11
Saving the Log Data	Y	Y	2.2	3.1.7.12
Collecting System Information	*1	*1	2.2	3.1.7.13
<b>Maintenance Guide Function</b>				
Hot Swapping Guide				
The Faulty Hard Disk Drive Replacement (Hot Swap)	Y	Y	2.3	Appendix B
Preventive Maintenance of the Hard Disk Drive (Hot Swap)	*1	*1	2.3	Appendix B
Include the Hard Disk Drive after the Cold Maintenance	*1	*1	2.3	Appendix B
Power Supply Unit of Main Cabinet	N	Y	2.3	3.1.8.2
Fan Unit of Main Cabinet	N	Y	2.3	3.1.8.3
Power Supply Unit of Expansion Cabinet	N	Y	2.3	3.1.8.4
Fan Unit of Expansion Cabinet	N	Y	2.3	3.1.8.5

Menu name	Main unit		Reference destination of function explanation	Reference destination of operation explanation
	PRIMEPOWER1	PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R		
<b>Automatic Power Control Function</b>				
Automatic Power Control				
Displaying Power Control Relationships	N	*2	2.4	3.1.9.1
Set Schedule	N	*2	2.4	3.1.9.2
Delete Schedule	N	*2	2.4	3.1.9.3
Setting Power Recovery Mode	N	*2	2.4	3.1.9.4
Matching of Cluster Information	N	*2	2.4	3.1.9.5
<b>Hardware Operation Setting Function</b>				
RCI-related Settings				
Displaying a List of RCI Devices	N	Y	2.5.2	3.1.10.1
Confirming the RCI-connected Units	N	Y	2.5.2	3.1.10.2
Reconfiguring the RCI Network (RCI Device Addition)	N	Y	2.5.2	3.1.10.3
Setting the RCI Host Address	N	Y	2.5.2	3.1.10.4
Setting the External Equipment Wait Time	N	Y	2.5.2	3.1.10.5
RCI Device Replacement	N	*1	2.5.2	3.1.10.6
Option Menu				
Setting Up and Testing the AP-Net	*1	*1	2.5.4	3.1.11
<b>Firmware Management Function</b>				
Option menu				
Disk Firmware Administrator	*1	*1	2.6	3.1.12.1
<b>Maintenance Program Startup Function</b>				
Diagnostic Program	Y	Y	2.7	3.1.13
Remote Setup	*1	*1	2.7	3.1.14
<b>Other Functions</b>				
Setting of Management Server Log	*2	*2	2.8	3.1.15
Setting of Hardware Information Display Window	*2	*2	2.8	3.1.16
Version Information	Y	Y	2.8	3.1.17

### 3.1.3 When to Make Settings

Machine Administration supports three types of settings. The first type of settings are made when the main unit is installed. The second type of settings are made when the main unit is in operation. The third type of settings are made as required.

The tables below show settings to be made and the persons in charge responsible for making these settings.

The meanings of symbols in the "Person in charge" column are as follows.

- Y: The customer engineer or system administrator makes the appropriate setting.
- : Other persons in charge make the appropriate setting.

When to make the setting	Contents of the setting	Reference destination	Person in charge	
			Customer engineer	System administrator
At installation of the main unit				
	Monitoring battery life (*1)	3.2.6.1 Monitoring battery life	Y	-
	Setting Monitoring Notification Information	3.1.6.10 Setting Monitoring Notification Information	-	Y
	Set Schedule	3.1.9.2 Set Schedule	-	Y
	Setting Power Recovery Mode	3.1.9.4 Setting Power Recovery Mode	-	Y
	Setting the External Equipment Wait Time	3.1.10.5 Setting the External Equipment Wait Time	-	Y
	Remote Customer Support System (REMCS) Setup Menu	3.1.14 Remote Customer Support System (REMCS) Setup Menu	-	Y
When the main unit is in operation				
When an error occurs/ when a part is replaced	Fan Monitoring	3.1.6.2 Fan Monitoring	-	Y
	Disk Monitoring	3.1.6.3 Disk Monitoring	-	Y
	CPU Monitoring	3.1.6.5 CPU Monitoring	-	Y
	Memory Monitoring	3.1.6.6 Memory Monitoring	-	Y
When an error occurs	Tape Unit Monitoring	3.1.6.4 Tape Unit Monitoring	-	Y
	Power Supply Unit Monitoring	3.1.6.7 Power Supply Unit Monitoring	-	Y
	UPS Monitoring	3.1.6.8 UPS Monitoring	-	Y
	Degradation Monitoring (*2)	3.1.6.9 Degradation Monitoring	-	Y
As required	Setting Management Server Logging	3.1.15 Setting Management Server Logging	-	Y
	Hardware Information Display Settings	3.1.16 Hardware Information Display Settings	-	Y
	Matching of Cluster Information	3.1.9.5 Matching of Cluster Information	-	Y
When the main unit is in operation				
As required	Reconfiguring The RCI Network	3.1.10.3 Reconfiguring The RCI Network	-	Y
	Setting the RCI host address	3.1.10.4 Setting The RCI Host Address	-	Y
	Setting Up and Testing the AP-Net	3.1.11 Setting Up and Testing the AP-Net	-	Y

\*1 Make this setting not only when installing the main unit but also when performing preventive swapping.

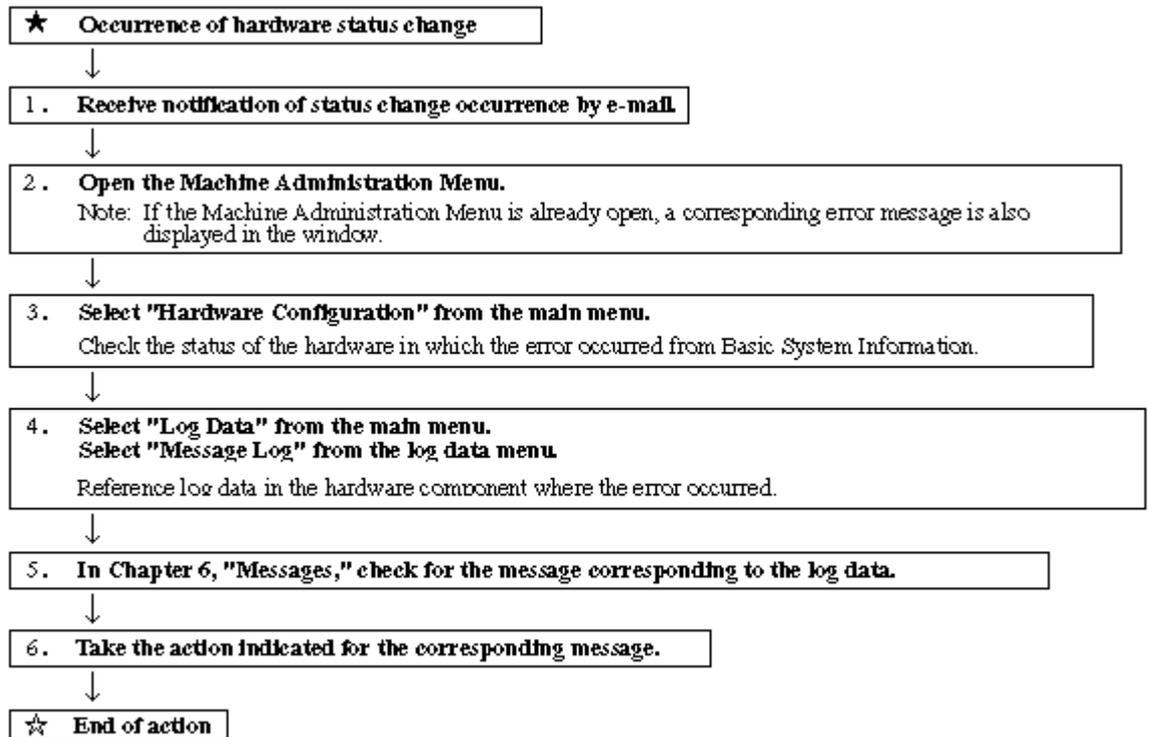
\*2 Degradation Monitoring must be set up if an error is detected during initialization.

### 3.1.4 Example of Action Taken for Status Changes

When the e-mail notification setting is set to "notification" beforehand, Machine Administration sends out an e-mail notification whenever a change in the status occurs. Machine Administration also displays an error message in the console and GUI menu.

For information about how to set the e-mail notification function, see Section 3.1.6.10, "Setting Monitoring Notification Information."

The following shows an example of the actions taken in response to changes of the hardware status.



### 3.1.5 Hardware Configuration

This section describes how to operate the hardware configuration menus.

#### Displaying the Hardware Configuration menu

##### **CUI** Operation

1. Select [Hardware Configuration] from the CUI menu.  
The Hardware Configuration menu opens.

```

Hardware Configuration

  1. Hardware Configuration Display
  2. Hardware Detailed Configuration Display

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t,h):
  
```

#### Displaying hardware configuration information

The following describes how to operate the Hardware Configuration Display:

**CUI** Operation

1. From the Hardware Configuration menu, select [Hardware Configuration Display].

The hardware configuration information appears.

<Example>

```

PRIMEPOWER100
CPU
  CPU#0
Memory
  SLOTO
CPU(PBM)#0
  pci0
    ebus0
      SUNW,p11
      PFU,watchdog-log0
      eeprom
      PFU,flashprom
      SYSMON
      FAN
        FAN#1
        FAN#2
        FAN#3
        FAN#4
        FEPFAN#0
      FEP
        FEP#0
      PFU,watchdog0

```

<Explanation of the display>

The status of the following hardware components is displayed: CPU, memory, disk, battery, channels, adapter, and devices. If a hardware fault is detected, a symbol indicating the status appears for the corresponding hardware component.



See

For information about the symbols indicating statuses, see Section 2.1.1, "Hardware configuration display function."



Note

- For the PRIMEPOWER series and GP7000F model 200R/400A/400R, the following information appears:
  - x in "0x-" coded before the hardware name indicates the number of the motherboard.
- A disk managed by SynfinityDISK or PRIMECLUSTER GDS is displayed as "sfdsk" after sdn or hddvn.
- A device detected as faulty at main unit initialization and which is degraded is displayed under "Failed Units."

### Displaying detailed hardware configuration information

The following describes how to operate the Hardware Detailed Configuration Display:

**CUI** Operation

1. From the Hardware Configuration menu, select [Hardware Detailed Configuration Display].

The detailed hardware configuration information appears.

<Example>

```
PRIMEPOWER100 Node Name:xvl;Ethernet address:0:80:17:84:2c:f1;Host ID:80f22cf1
CPU
  CPU#0 Status:normal;Freq:500;Cache:0.2;Impl.:13;Mask:1.4
Memory
  SLOTO 256MB used;Status:normal
CPU(PBM)#0
  pci0 Component-name:APB;Compatible:pci108e,5000;Model:SUNW,simba
  ebus0 Component-name:APB
    SUNW,p11
    PFU,watchdog-log0
    eepram Component-name:TOD/NVRAM
    PFU,flashprom OBP Version:3.11.5 2001/10/10 09:03;POST Version:3
    .1.25 2001/09/27 11:06
    SYSMON System monitor
      FAN
        FAN#1 Status:normal
        FAN#2 Status:normal
        FAN#3 Status:normal
        FAN#4 Status:normal
        FEPFAN#0 Status:normal
      FEP
        FEP#0 Status:normal
```

<Explanation of the display>

Detailed status information of the following hardware components appears: CPU, memory, disk, battery, channels, adapter, and devices. If a hardware fault is detected, a symbol indicating the status is displayed for the corresponding hardware component.



See

For information about the symbols indicating statuses, see Section 2.1.1, "Hardware configuration display function."

### 3.1.6 Hardware Monitoring Information

This section describes how to operate the hardware monitoring information menus.

#### Displaying the Hardware Monitoring Information menu

##### **CUI** Operation

1. From the CUI menu, select [Hardware Monitoring Information].  
The Hardware Monitoring Information menu opens.

```

Hardware Monitoring Information

1. Battery Life Monitoring
2. UPS Monitoring
3. Fan Monitoring
4. Power Supply Unit Monitoring
5. Disk Monitoring
6. Memory Monitoring
7. CPU Monitoring
8. Tape Unit Monitoring
9. Degradation Monitoring
10. Setting Monitoring Notification Information
11. Saving/Restoring Hardware Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-11,q,b,t,h):

```



Note

The menu items to be displayed depend on the main unit model.  
However, displayed menu items may not be available for use in some cases.



See

See Section 3.1.2, "Main Unit Models and Available Menus."

### 3.1.6.1 Monitoring battery life

This section describes how to operate the Battery Life Monitoring function.

#### Displaying the Battery Life Monitoring menu

##### **CUI** Operation

- From the Hardware Monitoring Information menu, select [Battery Life Monitoring].  
The Battery Life Monitoring menu opens.

```

Battery Life Monitoring

1. Adding Battery Life Information
2. Displaying and Setting Battery Life Information
3. Deleting Battery Life Information
4. Setting Battery Life Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-4,q,b,t):

```

### Adding Battery Life Information

The following describes how to operate the Adding Battery Life Information function:

#### **CUI** Operation

1. From the Battery Life Information menu, select [Adding Battery Life Information].  
The Adding Battery Life Information menu opens.
2. Specify the following information in the menu:
  - Battery  
Enter the battery identifier.  
For the UPS battery: UPS-B#n (n is the battery identification number.)  
For the disk array device battery: DARY-B#n (n is the battery identification number.)
  - Status  
Select a battery status from the following:  
Normal: Normal status  
Prepare: The expiration date of the battery life is approaching. A new battery needs to be prepared for future replacement.  
Replace: The expiration date of the battery life is approaching. The battery needs to be replaced.  
Expire: The expiration date of the battery life has passed. The battery needs to be replaced immediately.
  - Life  
Enter the expiration date of the battery life.
  - Prepare Notification  
Selects whether a notification is issued to prompt for preparation of the replacement part when the expiration date of the battery life is approaching.  
Valid: Notification.  
Invalid: No notification.
  - Replace Notification  
Selects whether a notification is to be issued to prompt for replacement of the part when the expiration date of the battery life is approaching.  
Valid: Notification  
Invalid: No notification
  - Expire Notification  
Selects whether a notification is to be issued to prompt for replacement of the part when the expiration date of the battery life is approaching.  
Valid: Notification (every day)  
Invalid: No notification
  - Battery Identification Number  
Enter the battery identification number as a number in the range of 0 to 999.  
The battery identification number is used to manage battery life.
  - Life  
Enter the expiration date of battery life indicated on the label attached to the battery.  
However, for the F6403XX disk array device, enter a date two years after the manufacturing date recorded on the label attached to the battery.
  - Setting Valid/Invalid Notification  
Select for each battery whether a notification is to be issued. The default is "Valid."  
Valid: Notification

Invalid: No notification

Make this selection for each of the following notifications:

Prepare Notification: Used to prompt for the preparation of a new battery when the expiration date of battery life is approaching.

Replace Notification: Used to prompt for battery replacement when the expiration date of battery life is approaching.

Expire Notification: Used to prompt for battery replacement when the expiration date of battery life has passed. (Every day)

## Displaying Battery Life Information

The following describes how to operate the Displaying Battery Life Information function:

### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Displaying and Setting Battery Life Information].  
The Displaying and Setting Battery Life Information menu opens.
2. Select [Displaying Battery Life Information].

The battery life information appears.

This information includes:

- Battery

The identifier of the battery

The battery identifier is displayed in the following formats:

For the UPS battery: UPS-B#n (n is the battery identification number.)

For the disk array device battery: DARY-B#n (n is the battery identification number.)

- Status

The battery status

Normal: Normal status

Error: A battery error was detected. The battery needs to be replaced.

Prepare: The expiration date of the battery life is approaching. A new battery for replacement needs to be prepared.

Replace: The expiration date of the battery life is approaching. The battery needs to be replaced.

Expire: The expiration date of the battery life has passed. The battery needs to be replaced immediately.

None: Not mounted.

- Life

Expiration date of the battery life

- Prepare Notification

Used to prompt for the preparation of a new battery for replacement when the expiration date of the battery life is approaching.

Valid: Notification

Invalid: No notification

- Replace Notification

Used to prompt for battery replacement when the expiration date of battery life is approaching.

Valid: Notification

Invalid: No notification

- Expire Notification

Used to prompt for battery replacement when the expiration date of the battery life has passed.

Valid: Notification (every day).

Invalid: No notification

### Setting Battery Life Information

The following describes how to perform the Setting Battery Life Information operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Displaying and Setting Battery Life Information].  
The Displaying and Setting Battery Life Information menu opens.
2. Select [Setting Battery Life Information].  
The Setting Battery Life Information menu opens.
3. Specify the following information in the menu:
  - Life  
Enter the expiration date of the battery life recorded on the label attached to the battery.  
However, for the F6403XX disk array device, enter a date two years after the manufacturing date recorded on the label attached to the battery.
  - Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each battery. The default is "Valid."  
Valid: Notification  
Invalid: No notification  
Make this setting for each of the following notifications:  
Prepare Notification: Used to prompt for the preparation of a new battery for replacement when the expiration date the battery life is approaching.  
Replace Notification: Used to prompt for battery replacement when the expiration date the battery life is approaching.  
Expire Notification: Used to prompt for battery replacement when the expiration month and year of the battery life has passed. (Every day)

### Deleting Battery Life Information

The following describes how to perform the Deleting Battery Life Information operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Deleting Battery Life Information].  
The battery life information list appears.
2. Select the battery to be deleted.
3. Perform operations in accordance with the menu.

### Setting Battery Life Notification

The following describes how to perform the Setting Battery Life Notification operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Setting Battery Life Notification].  
The Setting Battery Notification menu opens.
2. Specify the following information in the menu:
  - Setting Time Period of Notification  
Specify the time period during which an automatic notification is to be issued.  
Time period of prepare notification:  
During this time period, a notification prompting for the preparation of a new

battery for replacement is issued because the expiration date of the battery life is approaching.

A time period of 24 to 2 months before the expiration date of the battery life can be specified. The default is "6 months prior to the expiration of battery life."

Time period of replace notification:

During this time period, a notification prompting for part replacement is issued when the expiration date of the battery life is approaching. A time period of 23 months to 1 month prior to the expiration date of the battery life can be specified. The default is "4 months prior to the expiration of the product life."

– Life Notification Destination

Specify the destination to which an automatic notification is to be issued by Battery Life Monitoring.

Life Notification Destination: Select whether the notification is to be issued, for each notification destination, depending on whether a notification by Battery Life Monitoring is required.

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE

Select whether a notification is to be issued.

Valid: Notification

Invalid: No notification



Note

Set the mail address in the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.2 Fan Monitoring

The following describes how to operate the Fan Monitoring function:

#### Displaying the Fan Monitoring menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Fan Monitoring].

The Fan Monitoring menu opens.

```

Fan Monitoring

  1. Displaying and Setting Fan Monitoring Information
  2. Setting Fan Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

#### Displaying Fan Monitoring Information

The following describes how to operate the Displaying Fan Monitoring Information function:

**CUI** Operation

1. From the Fan Monitoring menu, select [Displaying and Setting Fan Monitoring Information].

The fan monitoring information appears.

This information includes:

- Fan

The identifier of the fan

The fan name is displayed in the following formats:

Fan Unit of Main : FAN#n (n is the fan identification number.)  
Cabinet

FEP Fan Unit of Main : FEPFAN#n (n is the fan identification number.)  
Cabinet

Fan Unit of Expansion : rci-address-FAN#n (n is the fan identification number.)  
Cabinet

cabinet-name#m-FAN#n (m is the cabinet identification number and n is the fan identification number.)

FEP Fan Unit of : rci-address-FEPFAN#n (n is the fan identification number.)  
Expansion Cabinet

- Status

The status of the fan

Normal: Normal status

Error: A fan error was detected. The part needs to be replaced.

Prepare: The expiration date of the service life for the fan is approaching. A new part for replacement needs to be prepared.

Replace: The expiration date of the service life for the fan is approaching. The part needs to be replaced.

Expire: The fan life has expired. The part needs to be replaced immediately.

None: Not mounted.

- Power-on

Time during which the power to the fan is on

- Error

Indicates whether an error is to be reported if it is detected.

Valid: Notification.

Invalid: No notification.

- Prepare

Indicates whether a notification is to be issued by Life Monitoring to prompt for the preparation of a new part for replacement if the expiration date of the service life of the fan is approaching.

Valid: Notification.

Invalid: No notification.

- Replace

Indicates whether a notification is to be issued from Life Monitoring to prompt for part replacement if the expiration date of the fan life is approaching.

Valid: Notification.

Invalid: No notification.

- Expire

Indicates whether a notification is to be issued by Life Monitoring to prompt for part replacement if the month and year of the fan life is approaching.

Valid: Notification. (Every day)

Invalid: No notification.

### Setting Fan Monitoring Information

The following describes how to perform the Setting Fan Monitoring Information operation:

#### **CUI** Operation

1. From the Fan Monitoring menu, select [Displaying and Setting Fan Monitoring Information].

The fan monitoring information list appears.

2. Select the fan whose settings need to be made.
3. Specify the following information in the menu:

- Power-on

If the fan was replaced, change the fan's power-on time.

The default is "0."

If the main unit was installed again, the power-on time of all fans in the main unit is "0."

The setting value of the fan power-on time can be retained by saving the hardware monitoring information before reinstalling the main unit and by restoring the monitoring information after reinstalling the main unit.



See

See Section 3.1.6.11, "Saving/Restoring Hardware Monitoring Information."

- Setting Valid/Invalid Notification

Specify whether a notification is to be issued, for each notification.

The default is "Valid." The default for the expire notification is "Invalid."

Valid: Notification

Invalid: No notification

The following notifications can be specified:

Error Notification: Used to prompt for device replacement if an error is detected.

Prepare Notification: Used to prompt for the preparation of a new device for replacement if the fan unit power-on time has reached 90% of the lifetime.

Replace Notification: Used to prompt for device replacement if the fan unit power-on time has reached 100% of the lifetime.

Expire Notification: Used to prompt for device replacement if the fan unit power-on time has exceeded the lifetime. (Every day)

- Resetting Monitoring Information

Reset monitoring information if the fan unit has been replaced.

### Setting Fan Monitoring Notification

The following describes how to perform the Setting Fan Monitoring Notification operation:

#### **CUI** Operation

1. From the Fan Monitoring menu, select [Setting Fan Monitoring Notification].

The Setting Fan Monitoring Notification menu opens.

2. Specify the following information in the menu:

- Error Notification Destination

Depending on whether an error notification is required, select whether the notification is to be issued, for each notification destination.

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE

Specify whether the notification is to be issued as follows:

Valid: Notification

Invalid: No notification

- Life Notification Destination

Depending on whether a life notification is required, select whether the notification is to be issued, for each notification destination.

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE

Specify whether a notification is to be issued as follows:

Valid: Notification

Invalid: No notification



Note

Specify the mail address in the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.3 Disk Monitoring



Note

The Disk Monitoring function automatically monitors all connected devices.

For this reason, an application or driver error may occur if an operational conflict with other applications occurs or the disk array device is used.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSMadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.



See

See Section 4.12, "nocheckdev (1M)."

### Displaying the Disk Monitoring menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Disk Monitoring].  
The Disk Monitoring menu opens.

```

Disk Monitoring

1. Displaying and Setting Disk Monitoring Information
2. Setting Disk Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):

```



#### Note

The menu items to be displayed depend on the main unit model. Moreover, there are cases where displayed menu items may not be available for use.



#### See

See Section 3.1.2, "Main Unit Models and Available Menus."

## Displaying Disk Monitoring Information

The following describes how to operate the Displaying Disk Monitoring Information function:

### **CUI** Operation

- From the Disk Monitoring menu, select [Displaying and Setting Disk Monitoring Information].

The disk monitoring information appears.

This information includes:

- Unit  
The instance name of the disk device
- Status  
The disk status  
Normal: Normal status  
Error: A disk error was detected. The part needs to be replaced immediately.  
Replace: A disk error was detected. Preventive replacement of the part is required.
- Immediate Replacement Notification Destination  
Indicates whether a notification is to be issued to prompt for immediate replacement when an error was detected.  
Valid: Notification  
Invalid: No notification
- Preventive Replacement Notification Destination  
Indicates whether a notification is to be issued to prompt for preventive replacement when replacement is required.  
Valid: Notification  
Invalid: No notification

### Setting Disk Monitoring Information

The following describes how to perform the Setting Disk Monitoring Information operation.

The main units of PRIMEPOWER800/1000/2000 and GP7000F model 1000/2000 do not support the setting of [Setting Valid/Invalid Notification].

#### **CUI** Operation

1. From the Disk Monitoring menu, select [Displaying and Setting Disk Monitoring Information].

The disk monitoring information list appears.

2. Select the disk to be set.
3. Enter the following information in the menu:

- Setting Valid/Invalid Notification

Specify whether a notification to be issued, for each device. The default is "Valid."

Valid: Notification

Invalid: No notification

The above setting can be made for the following types of notifications:

- Immediate Replacement Notification Destination  
Used to prompt for the immediate replacement of a disk when a hardware error was detected.
- Preventive Replacement Notification Destination  
Used to monitor the threshold managed by the SMART function and to prompt for preventive replacement of a disk before a hardware error is detected.
- Resetting Monitoring Information  
Reset the monitoring information when a disk was replaced.

### Setting Disk Monitoring Notification

The following describes how to perform the Setting Disk Monitoring Notification operation:

#### **CUI** Operation

1. From the Disk Monitoring menu, select [Setting Disk Monitoring Notification].

The Setting Disk Monitoring Notification menu opens.

2. Enter the following information in the menu:

- Immediate Replacement Notification Destination

If immediate replacement notification is required, specify the destination to which that notification is automatically sent.

Specify the notification destination from the following:

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE
- Preventive Replacement Notification Destination

If preventive replacement notification is required, specify the destination to which that notification is automatically sent.

Specify the notification destination from the following:

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE

**Note**

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.4 Tape Unit Monitoring

**Note**

The monitoring function automatically operates for all connected devices. For this reason, an application or driver error to the effect that the device is indicated as busy may occur if a device-open operation from another application conflicts with this function.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSMadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.

**See**

See Section 4.12, "nocheckdev (1M)."

## Displaying the Tape Unit Monitoring menu

### **CUI** Operation

- From the Hardware Monitoring Information menu, select [Tape Unit Monitoring].  
The Tape Unit Monitoring menu opens.

```
Tape Unit Monitoring

 1. Displaying and Setting Tape Unit Monitoring Information
 2. Setting Tape Unit Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

**Note**

Menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.

**See**

See Section 3.1.2, "Main Unit Models and Available Menus."

### Displaying Tape Unit Monitoring Information

The following describes how to operate the Displaying Tape Unit Monitoring Information function:

#### **CUI** Operation

1. From the Tape Unit Monitoring menu, select [Displaying and Setting Tape Unit Monitoring Information].

The tape unit monitoring information appears.

This information includes:

- Unit  
The instance name of the tape unit
- Status  
The tape unit status  
Normal: Normal status  
Error: An error was detected. The part needs to be replaced immediately.  
Cleaning Required: The part needs to be cleaned.
- Immediate Replacement Notification Destination  
Specify whether a notification is to be issued to prompt for immediate replacement of the tape unit if a hardware error was detected.  
Valid: Notification.  
Invalid: No notification.
- Cleaning Request Notification Destination  
Specify whether a notification is to be issued to prompt for cleaning when the part needs to be cleaned.  
Valid: Notification.  
Invalid: No notification.

### Setting Tape Unit Monitoring Information

The following describes how to perform the Setting Tape Unit Monitoring Information operation:

#### **CUI** Operation

1. From the Tape Unit Monitoring menu, select [Displaying and Setting Tape Unit Monitoring Information].

The tape unit monitoring information list appears.

2. Select the tape unit to be set.
3. Enter the following information in the menu:
  - Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each device. The default is "Valid."  
Valid: Notification.  
Invalid: No notification.  
The above setting can be made for the following types of notifications:  
Immediate Replacement Notification Destination: Used to prompt for the immediate replacement of the tape unit if a hardware error was detected.  
Cleaning Request Notification Destination: Used to prompt for cleaning if the part needs to be cleaned.

The main units of PRIMEPOWER800/1000/2000 and GP7000F model 1000/2000 do not support this function.

- Resetting Monitoring Information  
Reset the monitoring information when the tape unit was replaced.

### Setting Tape Unit Monitoring Notification

The following explains how to perform the Setting Tape Unit Monitoring Notification operation:

#### **CUI** Operation

1. From the Tape Unit Monitoring menu, select [Setting Tape Unit Monitoring Notification].  
The Setting Tape Unit Monitoring Notification menu opens.
2. Enter the following information in the menu:
  - Immediate Replacement Notification Destination  
If immediate replacement notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE
  - Cleaning Request Notification Destination  
If cleaning notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.5 CPU Monitoring

This section describes how to operate the CPU Monitoring function.

#### Displaying the CPU Monitoring menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [CPU Monitoring].  
The CPU Monitoring menu opens.

```
CPU Monitoring

  1. Displaying and Setting CPU Monitoring Information
  2. Setting CPU Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

### Displaying CPU Monitoring Information

The following describes how to operate the Displaying CPU Monitoring Information function:

#### **CUI** Operation

1. From the CPU Monitoring menu, select [Displaying and Setting CPU Monitoring Information].

The CPU monitoring information appears.

This information includes:

- Unit  
The CPU slot (example: CPU#0)
- Status  
The CPU status  
Normal: Normal status  
Error: A CPU error was detected. The part needs to be replaced immediately.  
Replace: A CPU error was detected. Preventive replacement of the part is required.
- Immediate Replacement Notification Destination  
Specify whether a notification is to be issued to prompt for the immediate replacement of the CPU if a hardware error was detected.  
Valid: Notification.  
Invalid: No notification.
- Preventive Replacement Notification Destination  
Specify whether a notification is to be issued to prompt for preventive replacement if replacement is needed.  
Valid: Notification.  
Invalid: No notification.

### Setting CPU Monitoring Information

The following describes how to perform the Setting CPU Monitoring Information operation:

#### **CUI** Operation

1. From the CPU Monitoring menu, select [Displaying and Setting CPU Monitoring Information].  
The Setting CPU Monitoring Information list appears.
2. Select the CPU whose settings need to be made.
3. Enter the following information in the menu:
  - Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each device. The default is "Valid."  
Valid: Notification.

Invalid: No notification.

The above setting can be made for the following types of notifications:

Immediate Replacement Notification Destination: Used to prompt for the immediate replacement of the CPU.

Preventive Replacement Notification Destination: Used to monitor for 1-bit errors in the CPU cache memory and to prompt for preventive replacement of the CPU before a hardware error is detected.

- Resetting Monitoring Information  
Reset the monitoring information when the CPU was replaced.

### Setting CPU Monitoring Notification

The following describes how to perform the Setting CPU Monitoring Notification operation:

#### **CUI** Operation

1. From the CPU Monitoring menu, select [Setting CPU Monitoring Notification].  
The Setting CPU Monitoring Notification menu opens.
2. Enter the following information in the menu:
  - Immediate Replacement Notification Destination  
If immediate replacement notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE
  - Preventive Replacement Notification Destination  
If preventive replacement notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.6 Memory Monitoring

This section describes how to operate the Memory Monitoring function.

#### Displaying the Memory Monitoring menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Memory Monitoring].  
The Memory Monitoring menu opens.

```
Memory Monitoring

1. Displaying and Setting Memory Monitoring Information
2. Setting Memory Monitoring Notification

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t):
```

### Displaying Memory Monitoring Information

The following describes how to operate the Displaying Memory Monitoring Information function:

#### **CUI** Operation

1. From the Memory Monitoring menu, select [Displaying and Setting Memory Monitoring Information].

The memory monitoring information appears.

The memory monitoring information includes:

- Unit  
Unit name. (Example: SLOT0)
- Status  
Memory status  
Normal: Normal status  
Error: A memory error was detected. The part needs to be replaced immediately.  
Replace: A memory error was detected. Preventive replacement of the part is required.
- Immediate Replacement Notification Destination  
Indicates whether a notification is to be issued to prompt for immediate replacement if an error was detected.  
Valid: Notification.  
Invalid: No notification.
- Preventive Replacement Notification Destination  
Indicates whether a notification is to be issued to prompt for preventive replacement if replacement is required.  
Valid: Notification.  
Invalid: No notification.

### Setting Memory Monitoring Information

The following describes how to perform the Setting Memory Monitoring Information operation:

#### **CUI** Operation

1. From the CPU Monitoring menu, select [Displaying and Setting CPU Monitoring Information].

The CPU monitoring information list appears.

2. Select the CPU whose settings need to be made.

3. Enter the following information in the menu:

- Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each unit. The default is "Valid."

Valid: Notification.

Invalid: No notification.

The above setting can be made for the following types of notifications:

Immediate Replacement Notification Destination:	Used to prompt for the immediate replacement of the memory if a hardware error was detected.
Preventive Replacement Notification Destination:	Used to monitor for 1-bit errors and comparable errors and to prompt for preventive replacement of the memory before a hardware error is detected.

- Resetting Monitoring Information  
Reset the monitoring information when the memory is replaced.

### Setting Memory Monitoring Notification

The following describes how to perform the Setting Memory Monitoring Notification operation:

#### **CUI** Operation

1. From the Memory Monitoring menu, select [Setting Memory Monitoring Notification].  
The Setting Memory Monitoring Notification menu opens.
2. Enter the following information in the menu:
  - Immediate Replacement Notification Destination  
If immediate replacement notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE
  - Preventive Replacement Notification Destination  
If preventive replacement notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.7 Power Supply Unit Monitoring

This section describes how to operate the Power Supply Unit Monitoring function.

#### Displaying the Power Supply Unit Monitoring menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Power Supply Unit Monitoring].  
The Power Supply Unit Monitoring menu opens.

```
Power Supply Unit Monitoring

  1. Displaying and Setting Power Supply Unit Monitoring Information
  2. Setting Power Supply Unit Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

### Displaying Power Supply Unit Monitoring Information

The following describes how to operate the Displaying Power Supply Unit Monitoring Information function:

#### **CUI** Operation

1. From the Power Supply Unit Monitoring menu, select [Displaying and Setting Power Supply Unit Monitoring Information].

The power supply unit monitoring information appears.

This information includes:

- Unit

The identifier of the power supply unit

The unit name is displayed in the following formats:

Power Supply Unit of Basic Cabinet: FEP#n (n is the power supply unit identification number.)

Power Supply Unit of Expansion Cabinet: cabinet-name#m-PSU#n (m is the cabinet identification number and n is the power supply unit identification number.)

- Status

The power supply unit status

Normal: Normal status

Error: A power supply unit error was detected. The part needs to be replaced immediately.

None: Not mounted.

- Error Notification

Indicates whether a notification is to be issued to prompt for error reporting if an error is detected.

Valid: Notification.

Invalid: No notification.

### Setting Power Supply Unit Monitoring Information

The following describes how to perform the Setting Power Supply Unit Monitoring Information operation:

#### **CUI** Operation

1. From the Power Supply Unit Monitoring menu, select [Displaying and Setting Power Supply Unit Monitoring Information].

The power supply unit information list appears.

2. Select the power supply unit whose settings are to be made.

3. Enter the following information in the menu:
  - Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each power supply unit. The default is "Valid."  
Valid: Notification.  
Invalid: No notification.  
The above setting can be made for the following types of notifications:  
Error Notification: Used to prompt for the replacement of the power supply unit if an error was detected.
  - Resetting monitoring information  
Reset the monitoring information if the power supply unit was replaced.

### Setting Power Supply Unit Monitoring Notification

The following describes how to perform the Setting Power Supply Unit Monitoring Notification operation:

#### **CUI** Operation

1. From the Power Supply Unit Monitoring menu, select [Setting Power Supply Unit Monitoring Notification].  
The Setting Power Supply Unit Monitoring Notification menu opens.
2. Enter the following information in the menu:
  - Error Notification Destination  
If error notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address on the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.8 UPS Monitoring

This section describes how to operate the UPS Monitoring function.

#### Displaying the UPS Monitoring menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [UPS Monitoring].  
The UPS Monitoring menu opens.

```
UPS Monitoring

1. Displaying and Setting UPS Monitoring Information
2. Setting UPS Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

### Displaying UPS Monitoring Information

The following describes how to operate the Displaying UPS Monitoring Information function:

#### **CUI** Operation

1. From the UPS Monitoring menu, select [Displaying and Setting UPS Monitoring Information].

The UPS monitoring information appears.

This information includes:

- Unit  
The identifier of the UPS unit
- Status  
The UPS unit status  
Normal: Normal status  
Error: A UPS unit error was detected. The part needs to be replaced immediately.
- Error Notification  
Indicates whether a notification is to be issued to prompt error reporting if an error was detected.  
Valid: Notification.  
Invalid: No notification.

### Setting UPS Monitoring Information

The following describes how to perform the Setting UPS Monitoring Information operation:

#### **CUI** Operation

1. From the UPS Monitoring menu, select [Displaying and Setting UPS Monitoring Information].

The UPS monitoring information list appears:

2. Select the UPS unit whose settings are to be made.
3. Enter the following information in the menu:
  - Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each UPS unit. The default is "Valid."  
Valid: Notification.  
Invalid: No notification.  
The above setting can be made for the following type of notification:  
Error Notification: Used to prompt for unit replacement if an error was detected.
  - Resetting Monitoring Information  
Reset the monitoring information when the UPS unit was replaced.

## Setting UPS Monitoring Notification

The following describes how to perform the Setting UPS Monitoring Notification operation:

### **CUI** Operation

1. From the UPS Monitoring menu, select [Setting UPS Monitoring Notification].  
The Setting UPS Monitoring Notification menu opens.
2. Enter the following information in the menu:
  - Error Notification Destination  
If error notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.9 Degradation Monitoring

This section describes how to operate the Degradation Monitoring function.

#### Displaying Degradation Monitoring menu

### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Degradation Monitoring].  
The Degradation Monitoring menu opens.

```
Degradation Monitoring

1. Displaying Degradation Monitoring Information
2. Setting Degradation Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

#### Displaying Degradation Monitoring Information

The following describes how to operate the Displaying Degradation Monitoring Information function:

### **CUI** Operation

1. From the Degradation Monitoring menu, select [Displaying Degradation Monitoring Information].  
The degradation monitoring information appears.  
The degradation monitoring information includes:
  - Unit

- Name of the unit being operated in degradation mode
- Location (FRU)
- Location of the unit being operated in degradation mode

### Setting Degradation Monitoring Notification

The following describes how to perform the Setting Degradation Monitoring Notification operation:

#### **CUI** Operation

1. From the Degradation Monitoring menu, select [Setting Degradation Monitoring Notification].  
The degradation monitoring information appears.
2. Enter the following information in the menu:
  - Error Notification Destination  
If notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.1.6.10 Setting Monitoring Notification Information

This section describes how to perform the Setting Monitoring Notification Information operation.

#### Displaying the Setting Monitoring Notification Information menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Setting Monitoring Notification Information].  
The Setting Monitoring Notification Information menu opens.

```
Setting Monitoring Notification Information

1. Output to the console : root
2. Mail address of the system administrator:
   Memo
3. Mail address of the CE : nobody
   Memo

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-3,q,b,t,h):
```

## Output to the Console

The following describes how to operate the Output to the Console function:

### **CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Output to the console].  
The Output to the Console menu opens.
2. Enter the following information in the menu:
  - Notification Item  
In the CUI menu, no notification item can be selected. Specify whether a notification is to be issued for all items individually.  
To change each notification item individually, use the notification settings in the corresponding menus of the hardware monitoring information.  
In the GUI menu, the notification setting in the corresponding menus of the hardware monitoring information indicates whether the console is set as the notification destination.  
To change a notification item, select it and set it to "Valid" or "Invalid".

## Mail Address of the System Administrator

The following describes how to set the mail address of the system administrator:

### **CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Mail address of the system administrator].  
The Mail Address of the System Administrator menu opens.
2. Enter the following information in the menu:
  - Mail address  
Enter the mail address of the system administrator.  
To send a notification to multiple system administrators, separate their mail addresses with a comma ",".
  - Memo  
Enter supplementary information. Use this information when sending memos to the system administrator.  
A colon ":" cannot be entered.
  - Notification Item  
In the CUI menu, no notification item can be selected. Specify whether a notification is to be issued for all items.  
To change each notification item individually, use the notification settings in the corresponding menus of the hardware monitoring information.  
In the GUI menu, the notification setting in the corresponding menu of the hardware monitoring information indicates whether the system administrator is set as the notification destination.  
To change a notification item, select it and set it to "Valid" or "Invalid".

## Mail Address of the CE

The following describes how to specify a mail address of the CE:

### **CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Mail address of the CE].

The Mail Address of the CE menu opens.

2. Enter the following information in the menu:

- Mail address

Enter the mail address of the CE.

To send a notification to multiple CEs, separate their mail addresses with a comma ",".

- Memo

Enter supplementary information. Use this information when sending memos to the CE.

A colon ":" cannot be entered.

- Notification Item

In the CUI menu, no notification item can be selected. Specify whether a notification is to be issued for all items individually.

To change each notification item individually, use the notification settings in the corresponding menus of the hardware monitoring information.

In the GUI menu, the notification setting in the corresponding menus of the hardware monitoring information indicates whether the CE is set as the notification destination.

To change a notification item, select it and set it to "Valid" or "Invalid".

### 3.1.6.11 Saving/Restoring Hardware Monitoring Information

This section describes how to operate the Saving/Restoring Hardware Monitoring Information function.

#### Displaying the Saving/Restoring Hardware Monitoring Information menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Saving/Restoring Hardware Monitoring Information].

The Saving/Restoring Hardware Monitoring Information menu opens.

```
Saving/Restoring Hardware Monitoring Information

 1. Saving Hardware Monitoring Information
 2. Restoring Hardware Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

#### Saving Hardware Monitoring Information

The following describes how to operate the Saving Hardware Monitoring Information function:

##### **CUI** Operation

1. From the Saving/Restoring Hardware Monitoring Information menu, select [Saving Hardware Monitoring Information].
2. Select the log data to be saved.
3. Enter the name of the save destination directory with the full path.
4. Enter the file name (FJSVmadminfo.tar.Z) in the specified directory.

**Information**

If the information was saved in a file used for reinstalling the main unit, it needs to be copied to another main unit or storage medium.

**Restoring Hardware Monitoring Information**

The following describes how to operate the Restoring Hardware Monitoring Information function:

**CUI Operation**

1. From the Saving/Restoring Hardware Monitoring Information menu, select [Restoring Hardware Monitoring Information].
2. Enter the full path of the directory containing the original file to be restored.
3. FJSVmadminfo.tar.Z of the specified directory is restored.

**3.1.7 Log Data**

This section describes how to operate the various log data menus.

**Displaying the Log Data menu****CUI Operation**

1. From the CUI menu, select [Log Data].

The Log Data menu opens

```

Log Data

 1. Disk Error Information
 2. Disk Error Statistics Information
 3. Memory Error Information
 4. Message Log
 5. Thermal Error Log
 6. Fan Error Log
 7. Power Error Log
 8. SCF Error Log
 9. Power-failure/Power-recovery Log
10. Power Log
11. Machine Administration Monitoring Log
12. Saving the Log Data
13. Collecting System Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-13,q,b,t):

```

**Note**

The menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.  
Menu items to be displayed differ between the CUI and GUI menus.



See Section 3.1.2, "Main Unit Models and Available Menus."

### 3.1.7.1 Message logs

This section describes how to display message logs.

#### **CUI** Operation

1. From the Log Data menu, select [Message Log].
2. Specify the following items and retrieve log data in accordance with the menu:

- Specification of range

Displays the message log data in the range of the specified dates.

If Starting date is omitted, the starting day is January 1.

If Completion date is omitted, the ending day is December 31.

If both Starting date and Completion date are omitted, the log in the range from the beginning to the end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If October 1 is specified as Starting date and March 31 is specified as Completion date, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to the end of the log file.

- Specification of Time (only)

Displays the message logs in the specified time range.

If Starting time is omitted, the starting time is 00:00.

If Completion time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Starting time and 08:00 is specified as Completion time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified in Specification of Range and 1700 to 0900 is specified in Specification of Time (Only), the log data from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Retrieval character string

Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are to be retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."

- Display order

Selects whether information is displayed starting from the latest or the oldest information.  
The default is "latest information."

### 3.1.7.2 Disk error information

This section describes how to display disk error information.

#### **CUI** Operation

1. From the Log Data menu, select [Disk Error Information].
2. Specify the following items and retrieve log data in accordance with the menu:

- Display range

Displays the disk error information in the range of the specified date.

If Display start date is omitted, the starting day is January 1.

If Display end date is omitted, the ending day is December 31.

If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If Display start date is specified as October 1 and Display end date is specified as March 31, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to end of the log file.

- Time period

Displays the disk error information in the specified time range.

If Display start time is omitted, the starting time is 00:00.

If Display end time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Retrieval character string

Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are to be retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."

- Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

### 3.1.7.3 Disk Error Statistics Information

This section describes how to display disk error statistics information.

#### **CUI** Operation

1. From the log data menu, select [disk error statistics information].
2. Use either of the following methods to specify in the menu the disk for which disk error statistics information is to be displayed:
  - Entering the name of the disk  
Enter the name of the disk as displayed in the various messages or menu screens. The following types of names can be used:
    - sd driver instance name
    - logical device name (logical device name registered in /dev/rdisk)
    - physical device name (Unit name as registered in a message column)
  - Selecting the disk name from a list  
Enter "L". A list displaying the names of all disks for which information can be displayed appears; select the target disk from this list.

### 3.1.7.4 Memory error information

This section describes how to display memory error information.

#### **CUI** Operation

1. From the Log Data menu, select [Memory Error Information].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range  
Displays the memory error information in the range of the specified date.  
If Display start date is omitted, the starting day is January 1.  
If Display end date is omitted, the ending day is December 31.  
If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.  
<Example>  
If October 1 is specified as Display start date and March 31 is specified as Display end date, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to end of the log file.
  - Time period  
Displays the memory error information in the specified time range.  
If Display start time is omitted, the starting time is 00:00.  
If Display end time is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.  
If 05:01 is specified as Display range and 17:00 to 09:00 is specified as Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
  - Retrieval character string  
Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any one of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."

- Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

### 3.1.7.5 Machine Administration monitoring log

This section describes how to display the Machine Administration monitoring log.

#### **CUI** Operation

1. From the Log Data menu, select [Machine Administration Monitoring Log].
2. Specify the following items and retrieve log data in accordance with the menu:

- Display Range

Displays the Machine Administration monitoring log in the range of the specified date.

If Display start date is omitted, the starting day is January 1.

If Display end date is omitted, the ending day is December 31.

If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If Display start date is specified as October 1 and Display end date is specified as March 31, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to the end of the log file.

- Time period

Displays the Machine Administration monitoring log data in the specified time range.

If Start Time is omitted, the starting time is 00:00.

If End Time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Retrieval character string

Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any one of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units

- of multiple lines."
- Display order  
Selects whether information is displayed starting from the latest or oldest information.  
The default is "latest information."

### 3.1.7.6 SCF error log

This section describes how to display the SCF error log.

#### **CUI** Operation

1. From the Log Data menu, select [SCF Error Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display Range  
Displays the SCF error log data in the range of the specified date.  
If Display start date is omitted, the oldest information in the log file is displayed.  
If Display end date is omitted, the latest information in the log file is displayed.  
If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed.
  - Time period  
Displays the SCF error log data in the specified time range.  
If Display start time is omitted, the starting time is 00:00.  
If Display end time is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.  
If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
  - Display order  
Selects whether information is displayed starting from the latest or oldest information.  
The default is "latest information."
  - Log type  
Selects the type of the error log to be displayed.  
The default is "All."
    - All : All error logs
    - SCF log : Error log for device and environment errors detected by SCF
    - Watchdog : Error log for monitoring log Watchdog monitoring alarm
    - OBP/POS : Error log for errors detected by log OBP/POST
    - T
  - Display format  
Selects ordinary format or one-line-per-event format.  
The default is "Standard display format."  
In one-line-per-event format, the following information appears:
    - No. : Event number
    - Type : Log type
      - E: Device or environment error detected by SCF
      - H: Watchdog monitoring alarm
      - R: Error detected by OBP/POST
    - Date : Log storage time
    - Error code/Component : Error code  
For the OBP/POST log, indicates the error code and component ID.

### 3.1.7.7 Thermal error log

This section describes how to display the thermal error log.

#### **CUI** Operation

1. From the Log Data menu, select [Thermal Error Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range
    - Displays thermal error log data in the range of the specified date.
    - If Display start date is omitted, the oldest information in the log file is displayed.
    - If Display end date is omitted, the latest information in the log file is displayed.
    - If both Display start date and Display end date are omitted, the log data in the range from the beginning to the end of the log file is displayed.
  - Time period
    - Indicates the thermal error log in the specified time range.
    - If Display start time is omitted, the starting time is 00:00.
    - If Display end time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.

If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Retrieval character string
  - Retrieves and displays messages containing the specified character strings.
  - Multiple retrieval character strings can be specified.
  - If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any of the strings are displayed.
  - The default is "Any of the strings match."
  - Retrieval character string selects whether messages are retrieved and displayed line by line or in units of multiple lines logged at the same time of day. The default is "in units of multiple lines."
- Display order
  - Selects whether information is displayed starting from the latest or oldest information.
  - The default is "latest information."
- Display format
  - Selects the ordinary format or one-line-per-event format.
  - The default is "Standard display format."

In one-line-per-event format, the following information appears:

No.	:	Event number
Type	:	Log type
		E: Device or environment error detected by SCF
		H: Watchdog monitoring alarm
		R: Error detected by OBP/POST
Date	:	Log storage time
Error code/Component	:	Error code
		For the OBP/POST log, indicates the error code and component ID.

### 3.1.7.8 Fan error log

This section describes how to display the fan error log.

#### **CUI** Operation

1. From the Log Data menu, select [Fan Error Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range  
Displays the fan error log data in the range of the specified date.  
If Display start date is omitted, the oldest information in the log file is displayed.  
If Display end date is omitted, the latest information in the log file is displayed.  
If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed.
  - Time period  
Displays the fan error log data in the specified time range.  
If Display start time is omitted, the starting time is 00:00.  
If Display end time is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified for Display start time and 08:00 is specified for Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.  
If 0501 to 0831 is specified for Display range and 1700 to 0900 is specified for Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
  - Display order  
Selects whether information is displayed starting from the latest or oldest information.  
The default is "latest information."
  - Display format  
Selects the ordinary format or one-line-per-event format.  
The default is "Standard display format."  
In one-line-per-event format, the following information appears:

No.	:	Event number
Type	:	Log type
		E: Device or environment error detected by SCF
		H: Watchdog monitoring alarm
		R: Error detected by OBP/POST
Date	:	Log storage time
Error code/Component	:	Error code
		For the OBP/POST log, indicates the error code and component ID.

### 3.1.7.9 Power error log

This section describes how to display the power error log.

#### **CUI** Operation

1. From the Log Data menu, select [Power Error Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range  
Displays the power error log data in the range of the specified date.  
If Display start date is omitted, the oldest information in the log file is displayed.  
If Display end date is omitted, the latest information in the log file is displayed.  
If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed.
  - Time period

Displays the power error log data in the specified time range.

If Display start time is omitted, the starting time is 00:00.

If Display end time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.

If 0501 to 0831 is specified in Display range, and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

- Display format

Selects the ordinary format or one-line-per-event format.

The default is "Standard display format."

In the one-line-per-event format, the following information appears:

No.	:	Event number
Type	:	Log type
		E: Device or environment error detected by SCF
		H: Watchdog monitoring alarm
		R: Error detected by OBP/POST
Date	:	Log storage time
Error code/Component	:	Error code
		For the OBP/POST log, indicates the error code and component ID.

### 3.1.7.10 Power failure and power recovery logs

This section describes how to display the power failure and power recovery logs.

#### **CUI** Operation

1. From the Log Data menu, select [Power-failure/Power-recovery log].
2. Specify the following items and retrieve log data in accordance with the menu:

- Display range

Displays the power failure and power recovery log data in the range of the specified date.

If Display start date is omitted, the oldest information in the log file is displayed.

If Display end date is omitted, the latest information in the log file is displayed.

If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed.

- Time period

Displays the power failure and power recovery log data in the specified time range.

If Display start time is omitted, the starting time is 00:00.

If Display end time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified for Display range and 1700 to 0900 is specified for Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

### 3.1.7.11 Power log

This section describes how to display the power log.

#### Operation

1. From the System Log Administration menu, select [Display Power log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range  
Displays the power log data in the range of the specified date.  
If Display start date is omitted, the oldest information in the log file is displayed.  
If Display end date is omitted, the latest information in the log file is displayed.  
If both Display start date and Display end date are omitted, the log in the range from the beginning to end of the log file is displayed.
  - Time period  
Displays the power log data in the specified time range.  
If Display start time is omitted, the starting time is 00:00.  
If Display end time is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.  
If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
  - Display order  
Selects whether information is displayed starting from the latest or oldest information.  
The default is "latest information."



#### Note

If the clock setting of the operating system was changed by time resetting, the display order may differ from the event generation order or some part of the data may not be displayed.

### 3.1.7.12 Saving the log data

This section describes how to operate the Saving the Log Data function.

Saving the Log Data saves log data of various types. The following types of log data can be saved:

- All
- Message Log
- Machine Administration Monitoring Log
- SCF Error Log
- Power Log



#### Information

The CE uses the file in which the log data was saved, when hardware is faulty.

## Displaying the Saving the Log Data menu

### **CUI** Operation

- From the Log Data menu, select [Saving the Log Data].  
The Saving the Log Data menu opens.

```

Saving the Log Data

1. All
2. Message Log
3. Machine Administration Monitoring Log
4. SCF Error Log
5. Power Log

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
To specify more than one, use a comma to delimit the number such as 2,3.
Do you specify information to be saved? (1-5,q,b,t,h):

```



#### Note

The menu items to be displayed depend on the main unit model.  
Moreover, there are cases where displayed menu items may not be available for use.



#### See

See Section 3.1.2, "Main Unit Models and Available Menus."

## Save Log Data to a File

### **CUI** Operation

- From the Save Log Data to a File menu, select the log data to be saved.
- Enter the following information in the menu:
  - Save destination  
Specify the save destination file name with the full path.  
The file is created in tar format and is compressed with the "compress" command.

### 3.1.7.13 Collecting system information

This section describes how to operate the Collecting System Information function.

If a main unit error occurs, Collecting System Information outputs the following information to a file:

- Information relating to the hardware and software configurations, environment setting, logs, and operation statuses
- Information such as command execution results



#### Information

The CE uses the file in which system information was collected.

## Displaying the Collecting System Information menu

### **CUI** Operation

1. From the Log Data menu, select [Collecting System Information].

The Collecting System Information menu opens.

```
Collecting System Information
System Information Menu

1. all
2. basic software
3. high availability
4. lp
5. network
6. storage array
If you want to select more than one, please separate the number by comma (.).

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,h,t):
```

## Collecting System Information

### **CUI** Operation

1. From the Collecting System Information menu, select the system information to be collected.
2. Enter the following information in the menu:
  - Collection Destination  
Specify the name to the collection destination file with the full path.  
The file is created in tar format and is compressed with the “compress” command.

## 3.1.8 Hot Swapping Guide

This section describes how to operate the Hot Swapping Guide menus.



Note

The CE performs the hardware maintenance.

## Displaying the Hot Swapping Guide menu

### **CUI** Operation

1. From the CUI menu, select [Hot Swapping Guide].  
The Hot Swapping Guide menu opens.

## Hot Swapping Guide

1. The Faulty Hard Disk Drive Replacement (Hot Swap)
2. Preventive Maintenance of the Hard Disk Drive (Hot Swap)
3. Include the Hard Disk Drive after the Cold Maintenance
4. Power Supply Unit of Main Cabinet
5. Fan Unit of Main Cabinet
6. Power Supply Unit of Expansion Cabinet
7. Fan Unit of Expansion Cabinet

q:Quit b:Back to previous menu t:Go to top menu h:Help

-----  
Select. (1-6,q,b,t):



## Note

The menu items depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



## See

See Section 3.1.2, "Main Unit Models and Available Menus."



## Note

If Machine Administration ends abnormally during disk hot swapping, perform the hot swapping operation again from the beginning.

### 3.1.8.1 The Faulty Hard Disk Drive Replacement (Hot Swap)/Preventive Maintenance of the Hard Disk Drive (Hot Swap)/Include the Hard Disk Drive after the Cold Maintenance

See Appendix B, "Disk Drive Replacement," for information on how to use the menu for displaying the disk drive swapping guidance information.



## Note

The CE replaces the hard disk.

### 3.1.8.2 Power Supply Unit of Main Cabinet

This section describes how to display the guidance information on hot-swapping the power supply of the main cabinet.



Note

The CE replaces the power supply unit of the main cabinet.

### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Power Supply Unit of Basic Cabinet].
2. From the Basic Cabinet Power Supply Unit list, select the power supply unit to be replaced.  
The list shows the device names and statuses.
3. Replace the power supply unit in accordance with the guidance information.  
If no redundant PSU is built in, set up the power supply unit of the main cabinet for hot expansion.

### 3.1.8.3 Fan Unit of Main Cabinet

This section describes how to display the guidance information on hot-swapping the fan unit of the basic cabinet.



Note

The CE replaces the fan unit of the basic cabinet.

### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Fan Unit of Basic Cabinet].
2. From the Basic Cabinet Fan Unit list, select the fan unit to be replaced.  
The lists shows the device names and statuses.
3. Replace the fan unit in accordance with the guidance information.  
However, if the fan unit is replaced, the power-on time of the replaced fan unit is automatically set to 0.

### 3.1.8.4 Power Supply Unit of Expansion Cabinet

This section describes how to display the guidance information on hot-swapping the power supply unit of the expansion cabinet.



Note

The CE replaces the power supply unit of the expansion cabinet.

### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Power Supply Unit of Expansion Cabinet].
2. From the Expansion Cabinet Power Supply Unit list, select the power supply unit to be replaced.  
The list shows the device names and statuses.
3. Replace the power supply unit in accordance with the guidance information.

### 3.1.8.5 Fan Unit of Expansion Cabinet

This section describes how to display the guidance information on hot-swapping the fan unit of the expansion cabinet.



Note

The CE replaces the fan unit of the expansion cabinet.

#### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Fan Unit of Expansion Cabinet].
2. From the Expansion Cabinet Fan Unit list, select the fan unit to be replaced.  
The list shows the device names and statuses.
3. Replace the fan unit in accordance with the guidance information.  
However, if the fan unit is replaced, the power-on time of the replaced fan unit is automatically set to 0.

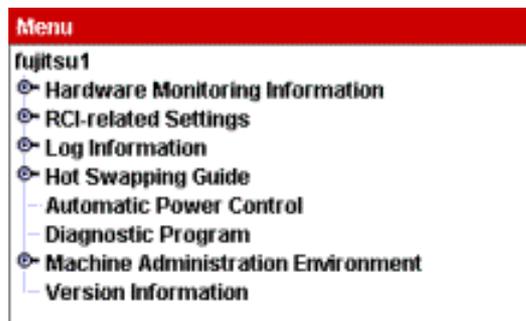
## 3.1.9 Auto Power Control System (APCS) Administration

This section describes how to operate the Auto Power Control System (APCS) Administration menus.

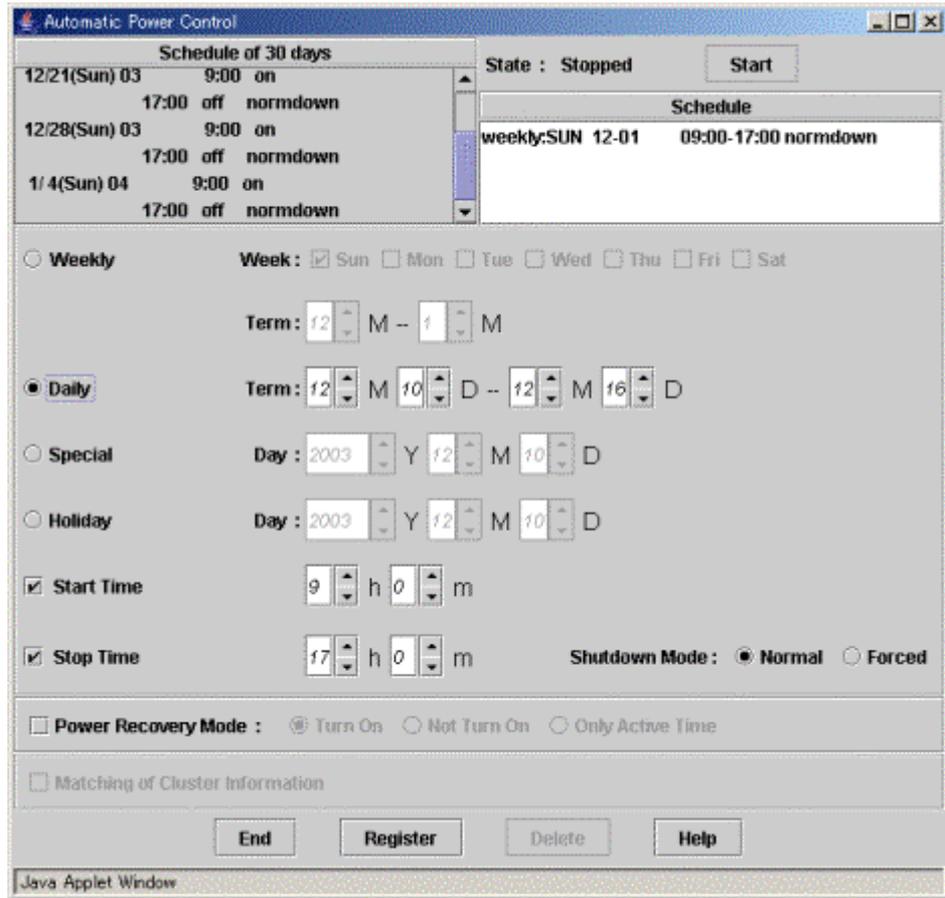
### Displaying the Automatic Power Control screen

#### **GUI** Operation

1. In the GUI menu, click [Automatic Power Control].



2. The Automatic Power Control screen appears.

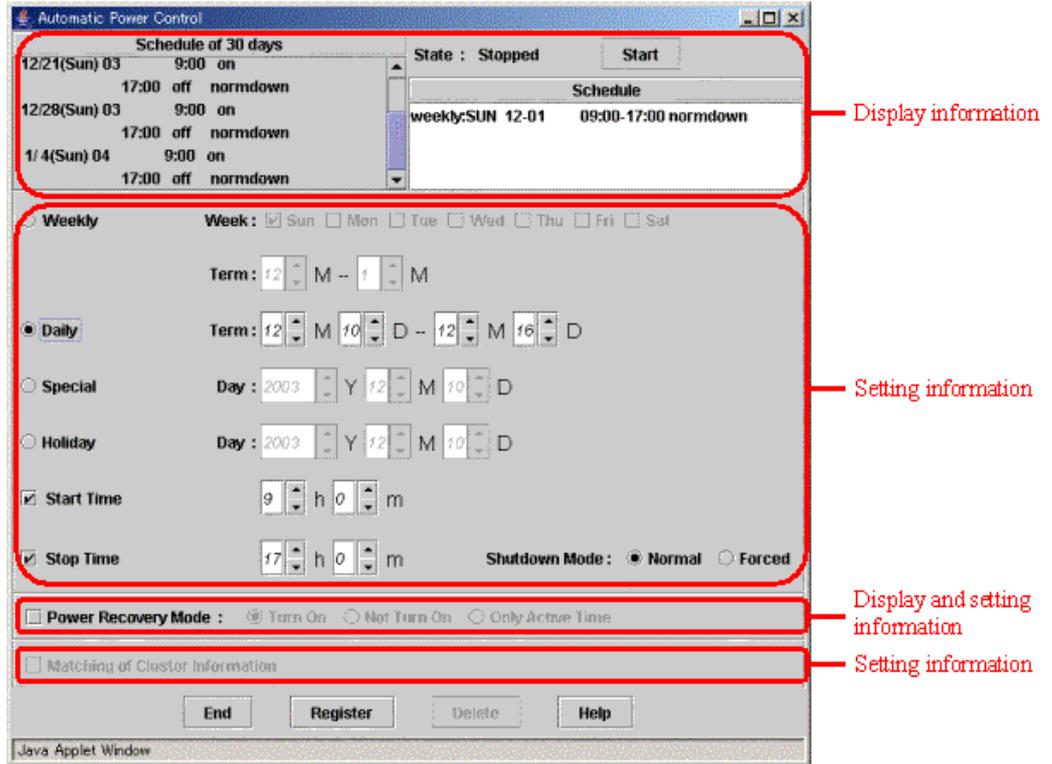


### 3.1.9.1 Displaying power control relationships

This section describes how to display information related to automatic power control.

#### GUI Operation

1. From the GUI menu, select [Automatic Power Control].  
The [Automatic Power Control] screen appears.



The [Automatic Power Control] screen displays the following information:

- State field  
Operation status of automatic power control  
Active: Automatic power control is in progress.  
Stopped: Automatic power control stops.
- Schedule of 30 days field  
Automatic power control schedule for 30 days from the current date and time  
Schedule setting and deletion are reflected.
- Schedule field  
Displays schedule information for automatic power control which was set.  
Schedule setting and deletion are reflected.
- Power Recovery Mode  
A selected host displays the power recovery mode currently set.

Power Recovery Mode	Meaning
Power On	If a power failure occurs during main unit operation and the power is turned off, it is automatically turned on again when the power is subsequently restored.
Do Not Power On	If a power failure occurs during main unit operation and the power is turned off, it is not turned on again when the power is subsequently restored.
Power On When Active	If a power failure occurs during main unit operation and the power is turned off, it is automatically turned on again during an operation period when the power has been subsequently restored.

### 3.1.9.2 Set Schedule

This section describes how to perform the Set Schedule operation.

### GUI Operation

1. In the GUI menu, click [Automatic Power Control].  
The [Automatic Power Control] screen appears.
2. Click the [Stop] button in the [Status] field.  
Schedule operation stops.
3. Select schedule items on the [Automatic Power Control] screen.
  - Weekly  
Sets week-by-week schedules.  
Enter the day of the week, period, start time, stop time, and shutdown mode in which Automatic Power Control is to be executed.
  - Daily  
Sets day-by-day schedule.  
Enter the period in which Automatic Power Control is to be executed, start time, stop time, and shutdown mode.
  - Special  
Sets the specific day's schedule.  
Enter the day when Automatic Power Control is to be executed, start time, stop time, and shutdown mode.
  - Holiday  
Sets a holiday schedule.  
Enter the day when Automatic Power Control is to be temporarily stopped.
  - Start Time  
Sets the time when the power is to be turned on.
  - Stop Time  
Sets the time when the power is to be turned off.
  - Shutdown Mode  
Selects whether shutdown mode is set normally or forcibly.  
Shutdown mode can be set only if the stop time is entered.  
If the stop time is omitted, [Normal] is set.



#### Note

In Set Schedule, the start time or stop time needs to be entered.

4. Click the [Register] button.  
The entered schedule information is registered.
5. Click the [Start] button in the [Status] field.  
Schedule operation starts.

### 3.1.9.3 Delete Schedule

This section describes how to perform the Delete Schedule operation.

### GUI Operation

1. In the GUI menu, click [Auto Power Control System (APCS) Administration].  
The [Automatic Power Control] screen appears.
2. Click the [Stop] button in the [Status] field.  
Schedule operation stops.
3. In the [Schedule] field, click the schedule to be deleted. (Multiple schedules can be selected.)
4. Click the [Delete] button.

The selected schedule is deleted.

- Click the [Start] button in the [Status] field.  
Schedule operation starts.

### 3.1.9.4 Setting Power Recovery Mode

This section describes how to set up Power Recovery Mode.

Use the [Automatic Power Control] screen to set up power recovery mode.

#### GUI Operation

- In the GUI menu, click [Automatic Power Control].  
The [Automatic Power Control] screen appears.
- Select [Power Recovery Mode].

Power Recovery Mode	Meaning
Power On	If a power failure occurs during main unit operation and the power is turned off, it is automatically turned on again when the power is subsequently restored.
Do Not Power On	If a power failure occurs during main unit operation and the power is turned off, it is not turned on again when the power is subsequently restored.
Power On When Active	If a power failure occurs during main unit operation and the power is turned off, it is automatically turned on again during an operation period when the power has been subsequently restored.

- Click the [Register] button.  
Power recovery mode is entered.



Note

Condition for enabling [Only Active Time]:

The automatic power control schedule is already set and is active.

If the automatic power control schedule is not set or is stopped, set it and set the operation status to [Active].

### 3.1.9.5 Matching of Cluster Information

This section describes how to unify the schedules of Auto Power Control System (APCS) Administration of the SynfinityCLUSTER system.

Unification of Cluster Information can make APCS schedules of all nodes consisting of the SynfinityCLUSTER system the same. Perform this operation in the following cases:

- A node from a cluster system was added.
- A node was replaced.

Unification of Cluster Information is available only for a SynfinityCLUSTER system.

#### GUI Operation

- In the GUI menu, click [Automatic Power Control].  
The [Automatic Power Control] screen appears.
- Click the [Stop] button in the [Status] field.  
Schedule operation stops.
- Select [Matching of Cluster Information].
- Click the [Register] button.  
The automatic power control schedule is distributed to another node from the cluster system.

- Click the [Start] button in the [Status] field.  
Schedule operation starts.

### 3.1.10 RCI-related Settings

This section describes how to operate the RCI-related Settings menus.

#### Displaying the RCI-related Settings menu

##### **CUI** Operation

- From the CUI menu, select [RCI-related Settings].  
The RCI-related Settings menu opens.

```

RCI-related Settings

  1. Displaying a List of RCI devices
  2. Confirming the RCI-connected Units
  3. Reconfiguring the RCI Network(RCI Device Addition)
  4. Setting the RCI Host Address
  5. Setting Expiration Time of the No-communication Monitoring Timer
  6. Setting the External Equipment Wait time
  7. RCI Device Replacement

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-7,q,b,t,h):
    
```

#### 3.1.10.1 Display Current RCI Configuration

This section describes how to perform the Display Current RCI Configuration operation.

##### **CUI** Operation

- From the Remote Cabinet Interface (RCI) Administration menu, select [Display Current RCI Configuration].

The RCI statuses of the local host are explained below.

- RCI address  
RCI address of the main unit
- Status  
RCI status
  - Active : RCI active status
  - Mainte : RCI maintenance mode in effect
  - Configuring : RCI network construction in progress
  - ConfigError (reason) : RCI network construction error  
reason indicates the reason for the error.

reason	Reason for error
"Self Host Address Conflict"	Local address duplication error
"Host Address Contradict"	Inconsistency between the host count and host addresses
"RCI Address Contradict"	RCI address inconsistency
"Can't assign new Address"	New registration impossible
"Error in Configuring"	Error during installation

reason	Reason for error
"Self configuration RCI AddressConflict"	Error in self-configuration: RCI address duplicate
"RCI Hardware Error"	RCI hardware error

The following explains the list of the devices connected to RCI:

- address  
RCI address
- pwr  
Power status of the RCI device
  - ON : Power-on status
  - OFF : Power-off status
- alm  
Alarm generation status
  - ALM : Alarm generation
  - : No alarm
- I/F  
I/F status of the RCI device
  - ACT : Active
  - INACT : Inactive
- sys-phase  
OS status
  - power-off : Power-off status
  - panic : Panic status
  - shdwn-start : Shutdown in progress
  - shdwn-cmplt : Shutdown completed
  - dump-cmplt : Dump completed
  - initializing : Initial diagnosis in progress
  - booting : Booting in progress
  - running : In operation
- ctgry  
RCI device category
  - Host : Main unit
  - Rcic : External power control device
  - Disk : Disk unit
  - Linsw : Line switching unit
  - Other : Other devices
- dev-cls  
RCI device class. Displayed as a 4-digit hexadecimal number.
- sub-cls  
Subclass of the RCI device. Displayed as a 2-digit hexadecimal number.

### 3.1.10.2 Confirming the RCI-connected Units

This section describes how to perform the Confirming the RCI-connected Units operation.

#### **CUI** Operation

1. From the RCI-related Settings menu, select [Confirming the RCI-connected Units].
2. From Display Current RCI Configuration, select the device whose connection is to be checked.  
The check lamp of the specified device blinks.
3. Exit [Confirming the RCI-connected Units].  
The check lamp of the specified device goes off.

### 3.1.10.3 Reconfiguring the RCI Network (RCI Device Addition)

This section describes how to perform the Reconfiguring the RCI Network operation.

### **CUI** Operation

From the RCI-related Settings menu, select [Reconfigure the RCI Network (RCI Device Addition)].

The RCI network is reconfigured.



#### Information

The time required for the setting to be completed depends on the number of cabinets connected to the network.

### 3.1.10.4 Setting the RCI Host Address

This section describes how to perform the Setting the RCI Host Address operation.

### **CUI** Operation

1. From the RCI-related Settings menu, select [Setting the RCI Host Address].
2. Enter the RCI host address in the following format:  
0x0001\*\*ff  
"\*\*\*" can be 01 to 20 (hexadecimal).

When the RCI host address is entered, the RCI network is constructed.

### 3.1.10.5 Setting the External Equipment Wait Time

This section describes how to perform the Setting the External Equipment Wait Time operation.

### **CUI** Operation

1. From the RCI-related Settings menu, select [Setting the External Equipment Wait Time].  
The RCI address list for the external power control device appears.
2. Select the device to which the external equipment is connected.
3. Specify the external equipment wait time.  
Specify this item in the range of 0 to 255 (minutes).

### 3.1.10.6 RCI Device Replacement

This section describes how to make the settings for RCI device replacement.

### **CUI** Operation

1. From the RCI-related settings menu, select "RCI Device Replacement."  
The RCI devices that can be replaced are listed.
2. Select the device to be replaced.
3. Make sure that the LED on the selected device is blinking, then replace the device.
4. After finishing replacement, display a listing of RCI devices.

### 3.1.11 Setting Up and Testing the AP-Net

This section describes how to perform the Setting Up and Testing the AP-Net operation.



Note

The CE performs Setting Up and Testing the AP-Net.

## Displaying Option Menu

### **CUI** Operation

1. From the CUI menu, select [Option Menu].  
The Option menu opens.

```
Option Menu

  1. Setting Up and Testing the AP-Net
  2. Disk Firmware Administrator

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```



Note

The menu items displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.

The menu items differ between the CUI and GUI menus.



See

See Section 3.1.2, "Main Unit Models and Available Menus."

## Setting up the AP-Net

### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
3. Select [Initialize and test of AP-Net case] from the menu.
4. From this point, perform operations according to the menu.
5. Check the setting.  
If an error is detected, perform the setting again.

### Testing AP-Net connection

#### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
3. From the menu, select [Connection test of MSC-RTC].
4. From this point, perform operations according to the menu.  
When the AP-Net connection test finishes, [All tests ended (return)] appears.

## 3.1.12 Firmware Administration



Note

The following operation should only be performed by a certified service engineer.

The following describes how to operate the Disk Firmware Administrator menus.

### Displaying the Disk Firmware Administrator menu

#### **CUI** Operation

1. From the CUI menu, select [Option Menu].  
The Option menu opens.
2. From the Option menu, select [Disk Firmware Administrator].  
The Disk Firmware Administrator menu opens.

```
Disk Firmware Administrator

1. The indication of the update applicable disk list
2. The indication of update log
3. The practice of update firmware(use media:CD-ROM)
4. The practice of update firmware(use media:Remote host)

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,d,q,b,t,h):
```

#### 3.1.12.1 Disk Firmware Administrator

This section describes how to operate the Disk Firmware Administrator function.

Disk firmware is distributed as HCP data together with the main unit firmware, and is automatically registered concurrently with registration of the main unit firmware. However, after the registration, the disk firmware and main unit firmware are separately managed. The registered main unit firmware can be deleted from the menu; however, the registered disk firmware cannot be deleted.

**Note**

The following operation should only be performed by a certified service engineer.

### The Indication of the Update Applicable Disk List

#### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The indication of the update applicable disk list].

A list of disks registered as subject to firmware updating by Machine Administration is displayed from among the disks currently connected.

The following items are displayed:

Disk name	:	Disk instance name
Firmware Revision No	:	Disk firmware revision number
Status	:	Current disk status ACT (in use) LOCK (maintenance in progress) STOP (unused, revisable)
Serial No	:	Disk serial number
VendorID	:	Disk vendor ID
ProductID	:	Disk product ID

### The Indication of Update Log

#### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The indication of update log].

The update history of the disk firmware appears.

The following items are displayed:

Time-Stamp	:	Year, month, day, and time
Revision Result	:	Revision result (success or failure)
Disk Name	:	Disk instance name. An item in ( ) is a logical name.
Previous Revision No	:	Previous revision number. If revision fails, the current revision number is used.
Revision Result Mark	:	-> (Displayed for successful revision) -* (Displayed for unsuccessful revision) -? (Displayed for a disk error)
Applicable Revision No	:	Revision number to be applied this time. If revision fails, the current revision number is used.
Serial No	:	Disk serial number
VendorID	:	Disk vendor ID
ProductID	:	Disk product ID
Remarks	:	Error code

### The Practice of Update Firmware (Use Media:CD-ROM)

#### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The practice of update firmware (use media:CD-ROM)].
2. Perform operations according to the menu.  
Disk revision is performed.

### The Practice of Update Firmware (Use Media:Remote host)

#### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The practice of update firmware (use media:Remote host)].
2. Perform the required operations according to the menu.  
Disk revision is performed.

### 3.1.13 Diagnostic Program

This section describes how to operate the Diagnostic Program menu.

#### Displaying the Diagnostic Program menu (for the CUI menu)

#### **CUI** Operation

1. From the CUI menu, select [Diagnostic Program].  
The Diagnostic Program menu opens.

```
Diagnostic Program

1. Executed from this terminal
2. Execution from the X terminal specified by the DISPLAY environment
   variable

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t,h):
```

#### Executed From This Terminal (for the CUI menu)

#### **CUI** Operation

1. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Executed from this terminal].  
FJVTS is started as the diagnostic program.
2. From the FJVTS screen, select [START].  
Diagnosis starts.
3. After diagnosis finishes, select [Quit UI and Kernel] from [quit] of the FJVTS screen.
4. Press the [Return] key.  
The original screen reappears.

#### Execution From the X Terminal Specified by the DISPLAY Environment Variable (for the CUI menu)

#### **CUI** Operation

1. Specify the display name used by the diagnostic program during startup in the environment variable.
2. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Execution from the X terminal specified by the DISPLAY environment variable].  
FJVTS is started as the diagnostic program.

3. From the FJVTS screen, select [START].  
Diagnosis starts.
4. After diagnosis finishes, select [Quit UI and kernel] from [quit] of the FJVTS screen.
5. Press the [Return] key.  
The original screen reappears.



See

For information on the method of using FJVTS, see the following manuals:

*"SunVTS User's Manual"*

*"SunVTS Test Reference Manual"*

*"FJVTS Test Reference Manual"*



Note

The following notes must be observed when Machine Administration executes the diagnostic program (FJVTS):

- For execution with the OpenWindows interface from the GUI menu, select the FJVTS Diagnostic Program menu or Diagnostic Program menu of Machine Administration and then specify the display destination DISPLAY according to the screen.  
At the display destination DISPLAY, set the X-Windows access permissions in advance using the xhost command.
- For execution with the OpenWindows interface from the CUI menu, specify the display destination DISPLAY in the environment variable before starting Machine Administration.  
Example: `setenv DISPLAY HOST_NAME:0`
- When FJVTS is executed from the GUI menu, the user interface may fail to start due to an X environment setting error (for example, because xhost was not specified). (Keep this in mind because, if this happens, no error message may appear in some cases.) However, no problem will occur if the X environment is set up later later and FJVTS is re-executed.

### 3.1.14 Remote Setup menu

This section describes how to operate the Remote Setup menu.

Service for this function is provided free of charge within the warranty period.

A separate contract is required after the warranty has expired. For more information about the warranty period and the contract, contact your Fujitsu sales representative.

#### Starting Remote Setup menu (not registered)

##### **CUI** Operation

1. From the CUI menu, select [Remote Setup].  
The Remote Setup menu opens.

```

Remote Setup Menu
Series Name:PRIMEPOWER#T, Model Name:PP00B1S1####
Check code:HO, Serial No.:000234#####

Setting to Connection Type

1. Internet Connection
2. Internet Connection(Mail Only)
3. Management Server Connection
4. Point-to-Point Connection(ISDN)
5. Point-to-Point Connection(VPN)

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select one. (1-5,q,b,t,h):
    
```



**Note**

The menu items displayed depend on the main unit model.  
 Moreover, there are cases where displayed menu items may not be available for use.



**See**

See Section 3.1.2, "Main Unit Models and Available Menus."

2. Perform operations according to the menu.

Menu name	Function
Internet Connection	Connects to the REMCS Center using mail or HTTP via the Internet.
Internet Connection (Mail only)	Connects to the REMCS Center via the Internet, using only mail.
Management Server Connection	Connects to the REMCS Center via the management server. A separate management server must be set provided.
Point-to-Point Connection (ISDN)	Connects to the REMCS Center through ISDN.
Point-to-Point Connection (VPN)	Connects to the REMCS Center through VPN.



**See**

For information on REMCS Agent, see the following manual:

*REMCS Agent Operator's Guide*

### Starting Remote Setup menu (registered)

#### **CUI** Operation

1. From the CUI menu, select [Remote Setup].  
 The Remote Setup menu opens.

```

Remote Setup Menu
Series Name:PRIMEPOWER#T, Model Name:PP00B1S1####
Check code:HO, Serial No.:000234#####

1. Registration
2. REMCS Environment Setting
3. REMCS Operation
4. Change Connection Type
5. Software Investigation Information Collection

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select one. (1-5,q,b,t,h):
    
```



**Note**

The menu items displayed depend on the main unit model.  
 Moreover, there are cases where displayed menu items may not be available for use.



**See**

See Section 3.1.2, "Main Unit Models and Available Menus."

2. Perform the required operations according to the menu.

Menu name	Function
Registration	Executes registration from REMCS Agent to send or register the customer information and device information.
REMCS Environment Setting	Sets the environment for operating REMCS Agent.
REMCS Operation	Sets registration and the REMCS environment, and starts services after successfully confirming connection to the REMCS Center.
Change Connection Type	Selects the method of connection between customers and the REMCS Center. The supported connection methods include Internet Connection, Management Server Connection, and Point-to-Point connection.
Software Investigation Information Collection	When a problem occurs that cannot be automatically detected (such as a software operation error), collects investigation information using a simple procedure and sends it to the REMCS Center.



**See**

For information on REMCS Agent, see the following manual:

*REMCS Agent Operator's Guide*

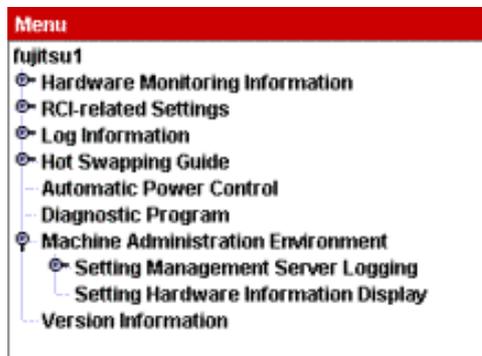
### 3.1.15 Setting Management Server Logging

This section describes how to operate the Setting Management Server Logging menu.

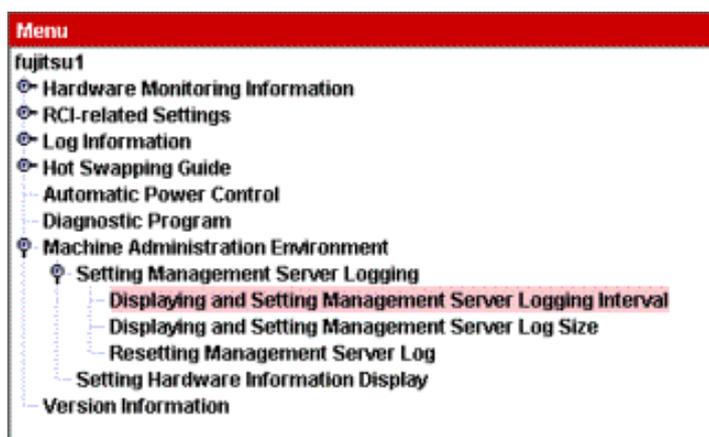
## Displaying the GUI menu

### GUI Operation

1. Click [Machine Administration Environment] on the GUI menu.  
The next level of the menu appears.



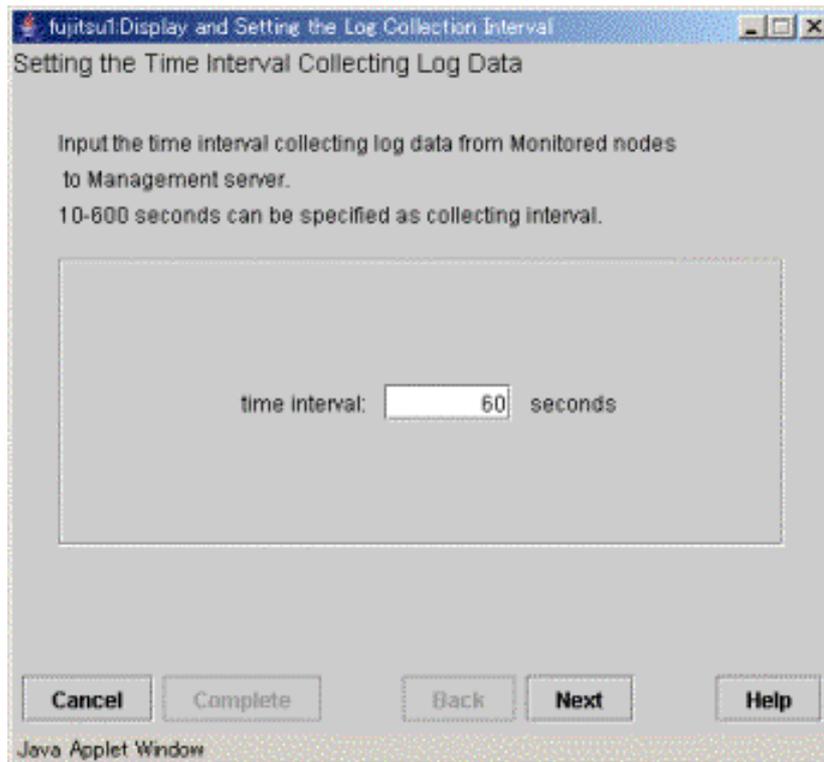
2. Click [Setting Management Server Logging] on the GUI menu.  
The next level of the menu appears.



## Displaying and Setting Management Server Logging Interval

### GUI Operation

1. Click [Displaying and Setting Management Server Logging Interval] on the GUI menu.  
The [Displaying and Setting Management Server Logging Interval] screen appears.

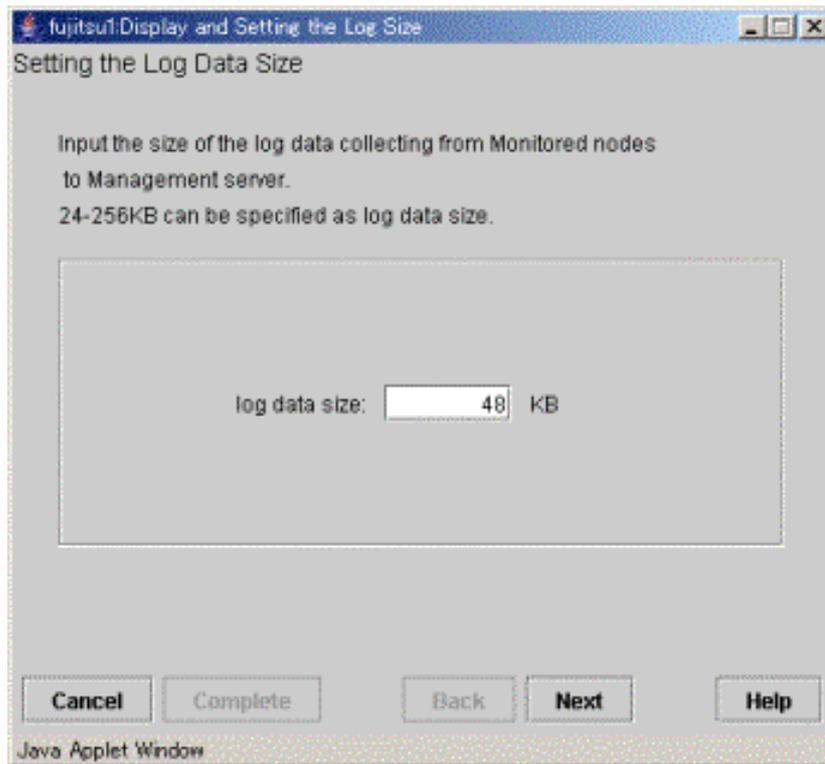


2. To change [time interval], enter a value.  
Specify the time interval for collecting logs in the range of 10 to 600 seconds.  
The default is "60 seconds."
3. Click the [Complete] button.

## Display and Setting the Log Size

### GUI Operation

1. Click [Display and Setting the Log Size] on the GUI menu.  
The [Display and Setting the Log Size] screen appears.

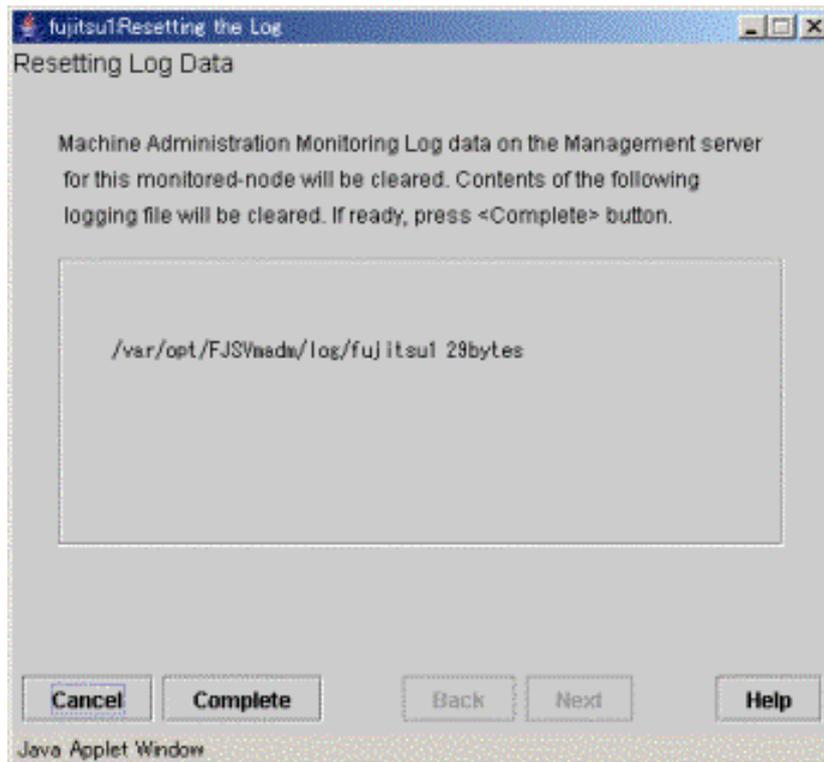


2. To change [log data size], enter a size.  
Specify the size in the range of 24 to 256 KB.  
The default is 48 KB.
3. Click the [Complete] button.

### Resetting the Log

#### **GUI** Operation

1. Click [Resetting the Log] in the GUI menu.  
The [Resetting the Log] screen appears.



2. Click the [Complete] button.  
The machine administration monitoring log on the management server is cleared.



#### Note

To use the same IP host name after replacing the device of the node to be monitored, clear the log. If the log is not cleared, the log information after device replacement is added to the machine administration monitoring log used before device replacement.

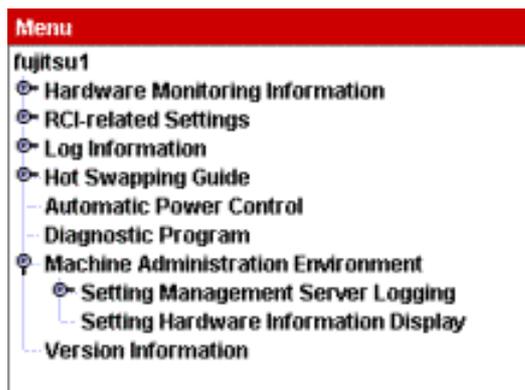
## 3.1.16 Hardware Information Display Settings

This section describes how to make the Hardware Information Display settings.

### Displaying the GUI menu

#### GUI Operation

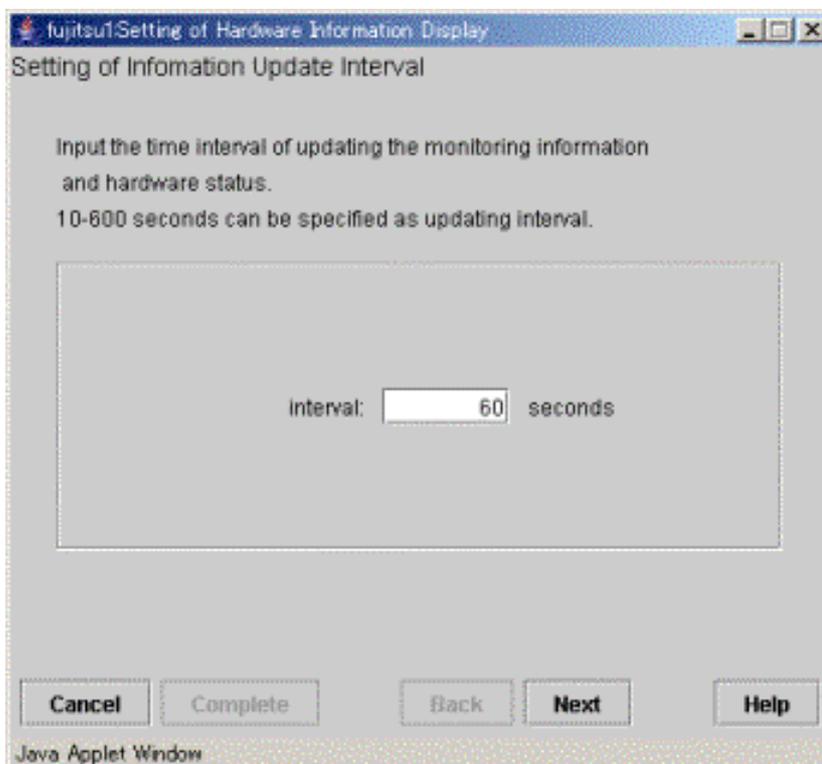
1. Click [Machine Administration Environment] in the GUI menu.  
The next menu level appears.



### Making the Hardware Information Display settings

#### GUI Operation

1. Click [Hardware Information Display Settings] in the GUI menu.  
The Hardware Information Display Settings menu opens.



2. To change the [interval] setting used for updating hardware information, enter a value.  
Specify the interval for updating hardware information in the range of 10 to 600 seconds.  
The default is "60 seconds."
3. Click the [Complete] button.

### 3.1.17 Version Information

This section describes how to perform the Version Information referencing operation.

**CUI** Operation

1. From the CUI menu, select [Version Information].

Version Information appears.

<Example>

```
Version: 2.1.1,REV=2003.11.1800      . . . . . (1)
Patches:
  No patches                          . . . . . (2)
Hit return key
```

- (1) Package version of machine administration
- (2) Information of patches applied to machine administration

## 3.2 PRIMEPOWER250/450

This Section describes how to operate Machine Administration menu.

The operation method for the individual functions is described with the operations used when CUI menus are used.

### 3.2.1 Starting and Exiting Machine Administration Menu

This section describes how to start and exit Machine Administration menu.

- Starting Machine Administration Menu
- Exiting Machine Administration Menu
- How to read the Machine Administration Menu

#### 3.2.1.1 Starting Machine Administration Menu

This section describes how to start the CUI menu and GUI menu.

##### CUI menu

##### **CUI** Operation

1. Make sure that the command prompt is displayed on the UNIX screen.
2. Enter the following start command:

```
# /usr/sbin/FJSVmadm/madmin
```

The top menu of the CUI menu opens.



See

See section 4.11, "madmin (1M)."

#### 3.2.1.2 Exiting Machine Administration Menu

This section describes how to close the CUI menu or GUI menu.

##### CUI menu

##### **CUI** Operation

1. Enter the number of "Exit".  
Machine Administration menu exits.

#### 3.2.1.3 How to read the CUI menu

##### **CUI**

The top menu of the CUI menu is shown below.

The following shows the CUI menus corresponding to the main unit model.

### When the main unit model is PRIMEPOWER250/450

```

Machine Administration Menu

  1. Hardware Configuration
  2. Hardware Monitoring Information
  3. RCI-related Settings
  4. System Control Administration
  5. eXtended System Control Facility (XSCF) Administration
  6. Log Data
  7. Hot Swapping Guide
  8. FJYTS Diagnostic Program
  9. Remote Setup
 10. Hardware Control Program (HCP) Administration
 11. Option Menu
 12. Version Information
 13. Exit

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-13,q,h):

```

<Explanation of the display>

- (1): Enter the desired item at the location of the cursor.
- 1-13: To select a menu, enter the menu number.
- q : If you want to quit the operation, enter "q".
- h : If you want to display help, enter "h".

### 3.2.2 Main Unit Models and Available Menus

In Machine Administration, the menu provided depends on the main unit model to be monitored. The tables below show the relationships between main unit models and available menus.

#### How to read the tables

- The table below shows the meanings of the symbols.

Symbol	Meaning
Y	The appropriate function is available in the CUI menu and GUI menu.
N	The appropriate function is unavailable.
*1	The appropriate function is available only in the CUI menu.
*2	The appropriate function is available only in the GUI menu.
*3	The appropriate function is available in System Management Console.  See For information about System Management Console, see the "System Console Software User's Guide".
*4	The appropriate function is available but the appropriate menu is unavailable. Log data is collected.

**Main unit models and available menus**

Function/Menu name	Main unit	Reference destination of function explanation	Reference destination of operation explanation
	PRIMEPOWER250/450		
<b>Hardware Monitoring Function</b>			
Hardware Configuration Display			
Hardware Configuration Display	*1	2.1.1	3.2.5
Hardware Detailed Configuration Display	*1	2.1.1	3.2.5
Hardware Monitoring Information			
Management of Hardware Error Event	*1	2.1.2	3.2.6.1
Battery Life Monitoring	*1	2.1.2	3.2.6.2
Fan Monitoring	*1	2.1.2	3.2.6.3
Disk Monitoring	*4	2.1.2	3.2.6.4
Tape Unit Monitoring	*4	2.1.2	3.2.6.5
Setting Monitoring Notification Information	*1	2.1.2	3.2.6.6
Notification Test	*1	2.1.2	3.2.6.7
<b>Log Data Function</b>			
Log Data			
Message Log	*1	2.2	3.2.7.1
Hardware Error Log	*1	2.2	3.2.7.2
Power Log	*1	2.2	3.2.7.3
Disk Error Statistics Information	*1	2.2	3.2.7.4
Saving the Log Data	*1	2.2	3.2.7.5
Collecting System Information	*1	2.2	3.2.7.6
<b>Maintenance Guide Function</b>			
Hot Swapping Guide			
The Faulty Hard Disk Drive Replacement (Hot Swap)	*1	2.3	Appendix B
Preventive Maintenance of the Hard Disk Drive (Hot Swap)	*1	2.3	Appendix B
Include the Hard Disk Drive after the Cold Maintenance	*1	2.3	Appendix B
Power Supply Unit of Main Cabinet	*1	2.3	3.2.8.2
Fan Unit of Main Cabinet	*1	2.3	3.2.8.3
Power Supply Unit of Expansion Cabinet	*1	2.3	3.2.8.4
Fan Unit of Expansion Cabinet	*1	2.3	3.2.8.5
<b>Automatic Power Control Function</b>			
(System Control Administration-) Auto Power Control System (APCS) Administration			
Start Schedule	*1	2.4	3.2.9.1
Stop Schedule	*1	2.4	3.2.9.2
Add Schedule Entry	*1	2.4	3.2.9.3
Add Holiday	*1	2.4	3.2.9.4
Select and Delete Schedule Entries	*1	2.4	3.2.9.5
Delete all	*1	2.4	3.2.9.6
List Schedule Entries	*1	2.4	3.2.9.7
Show Status of Schedule Entries	*1	2.4	3.2.9.8

Function/Menu name	Main unit	Reference destination of function explanation	Reference destination of operation explanation
	PRIMEPOWER250/ 450		
<b>Hardware Operation Setting Functions</b>			
eXtended System Control Facility (XSCF) Administration			
Network Configuration	*1	2.5.1	3.2.10.1
User Account Administration	*1	2.5.1	3.2.10.2
Console Administration	*1	2.5.1	3.2.10.3
XSCF Web Administration	*1	2.5.1	3.2.10.4
SNMP Administration	*1	2.5.1	3.2.10.5
Mail Administration	*1	2.5.1	3.2.10.6
RCI-related Settings			
Displaying a List of RCI Devices	*1	2.5.2	3.2.11.1
Confirming the RCI-connected Units	*1	2.5.2	3.2.11.2
Reconfiguring the RCI Network (RCI Device Addition)	*1	2.5.2	3.2.11.3
RCI Device Replacement	*1	2.5.2	3.2.11.4
System Control Administration			
Setting the External Equipment Wait Time	*1	2.5.3	3.2.12.1
Power Failure Recovery Waiting Time Setup (UPS)	*1	2.5.3	3.2.12.2
Server CHECK-LED Operation	*1	2.5.3	3.2.12.3
Option Menu			
Setting Up and Testing the AP-Net	*1	2.5.4	3.2.13
<b>Firmware Management Function</b>			
Hardware Control Program (HCP) Administration			
HCP File Operation	*1	2.6	3.2.14.1
Update Baseboard Firmware	*1	2.6	3.2.14.2
Disk Firmware Administrator	*1	2.6	3.2.14.3
<b>Maintenance Program Startup Function</b>			
FJVTS Diagnostic Program	*1	2.7	3.2.15
Remoto Customer Support System (REMCS) Setup	*1	2.7	3.2.16
<b>Other Functions</b>			
Version Information	*1	2.8	3.2.17

### 3.2.3 When to Make Settings

Machine Administration supports three types of settings. The first type of settings are made when the main unit is installed. The second type of settings are made when the main unit is in operation. The third type of settings are made as required.

The tables below show settings to be made and the persons in charge responsible for making these settings.

The meanings of symbols in the "Person in charge" column are as follows.

Y: The customer engineer or system administrator makes the appropriate setting.

-: Other persons in charge make the appropriate setting.

When to make the setting	Contents of the setting	Reference destination	Person in charge	
			Customer engineer	System administrator
At installation of the main unit				
	Monitoring battery life (*1)	3.2.6.2 Monitoring battery life	Y	-
	Setting Monitoring Notification Information	3.2.6.6 Setting Monitoring Notification Information	-	Y
	Add Schedule Entry	3.2.9.3 Add Schedule Entry	-	Y
	Add Holiday	3.2.9.4 Add Holiday	-	Y
	Network Configuration (*2)	3.2.10.1 Network Configuration	Y	Y
	User Account Administration (*2)	3.2.10.2 User Account Administration	Y	Y
	Console Administration (*2)	3.2.10.3 Console Administration	Y	Y
	XSCF Web Administration (*2)	3.2.10.4 XSCF Web Administration	-	Y
	SNMP ADMINISTRATION (*2)	3.2.10.5 SNMP Administration	-	Y
	Mail Administration (*2)	3.2.10.6 Mail Administration	-	Y
	Setting the External Equipment Wait Time	3.2.12.1 Setting the External Equipment Wait Time	-	Y
	Setting waiting time for shutdown at power failure	3.2.12.2 Setting waiting time for shutdown at power failure	-	Y
	REMOTE CUSTOMER SUPPORT SYSTEM (REMCS) SETUP MENU	3.2.16 Remote Customer Support System (Remcs) Setup Menu	-	Y
When the main unit is in operation				
When an error occurs/when a part is replaced	Fan Monitoring	3.2.6.3 Fan Monitoring	-	Y
	Disk Monitoring	3.2.6.4 Disk Monitoring	-	Y
When an error occurs	Tape Unit Monitoring	3.2.6.5 Tape Unit Monitoring	-	Y
As required	Add Schedule Entry	3.2.9.3 Add Schedule Entry	-	Y
	Add Holiday	3.2.9.4 Add Holiday	-	Y
	Reconfiguring the RCI Network	3.2.11.3 Reconfiguring the RCI Network	-	Y
	Setting Up and Testing the AP-Net	3.2.13 Setting Up and Testing the AP-Net	-	Y
	HCP File Operation	3.2.14.1 HCP File Operation	-	Y

\*1 Make this setting not only when installing the main unit but also when performing preventive swapping.

\*2 Make these settings in the following order:

Network Configuration -> User Account Administration -> Console Administration -> XSCF Web Administration -> SNMP Administration -> Mail Administration

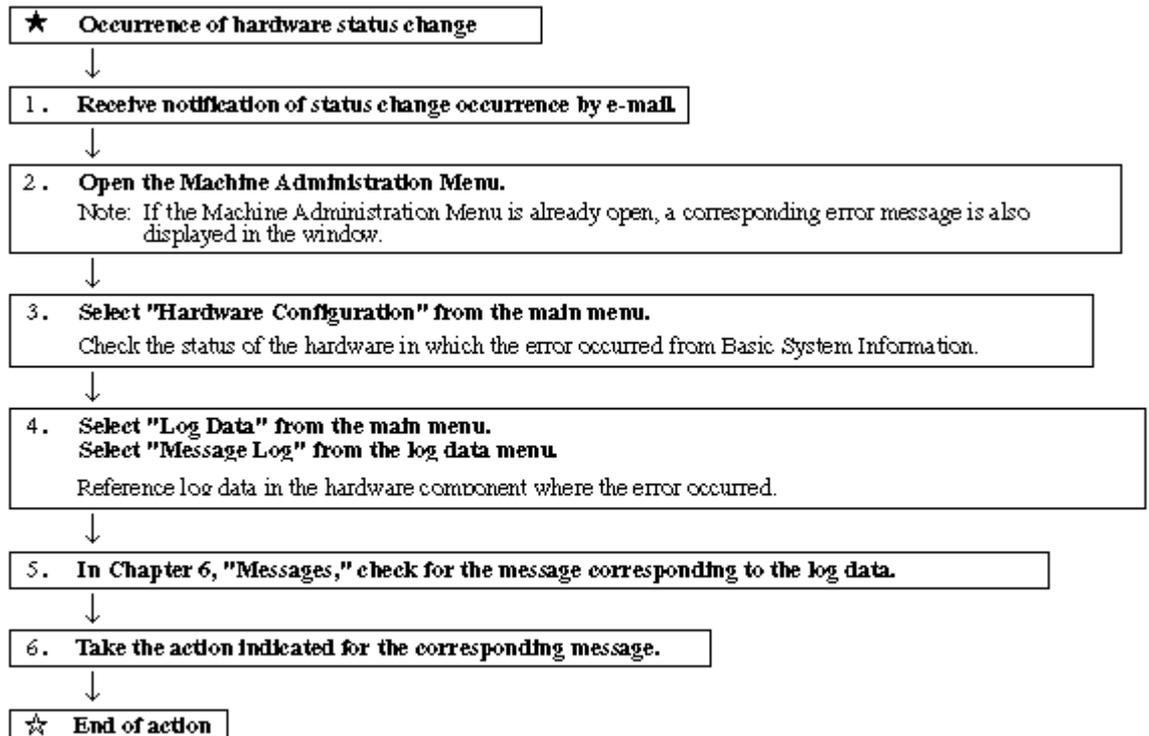
Other settings can be made in any order.

### 3.2.4 Example of Action Taken for Status Changes

When the e-mail notification setting is set to "notification" beforehand, Machine Administration sends out an e-mail notification whenever a change in the status occurs. Machine Administration also displays an error message in the console and GUI menu.

For information about how to set the e-mail notification function, see Section 3.2.6.6, "Setting Monitoring Notification Information."

The following shows an example of the actions taken in response to changes of the hardware status.



### 3.2.5 Hardware Configuration

This section describes how to operate the hardware configuration menus.

#### Displaying the Hardware Configuration menu

##### **CUI** Operation

1. Select [Hardware Configuration] from the CUI menu.  
The Hardware Configuration menu opens.

```

Hardware Configuration

  1. Hardware Configuration Display
  2. Hardware Detailed Configuration Display

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t,h):
  
```

#### Displaying hardware configuration information

The following describes how to operate the Hardware Configuration Display:

**CUI** Operation

1. From the Hardware Configuration menu, select [Hardware Configuration Display].  
The hardware configuration information appears.

<Example>

```

PRIMEPOWER250
  SB
  CPU
    CPU#0
    CPU#1
    CPUDDC#0
    CPUDDC#1
  Memory
    SLOT#00
    SLOT#01
    SLOT#02
    SLOT#03
    SLOT#04
    SLOT#05
    SLOT#06
    SLOT#07
  SCSI-BP#0
  SCSI-BP#1
  DDC-A#0
  DDC-B#0
  U2P#3B
    ebus0
      SCF
    RCI
  
```

<Explanation of the display>

The status of the following hardware components is displayed: CPU, memory, disk, battery, channels, adapter, and devices. If a hardware fault is detected, a symbol indicating the status appears for the corresponding hardware component.



See

For information about the symbols indicating statuses, see Section 2.1.1, "Hardware configuration display function."



Note

- A disk managed by SynfinityDISK or PRIMECLUSTER GDS is displayed as "sfdsk" after sdn or hddvn.
- A device detected as faulty at main unit initialization and which is degraded is displayed under "Failed Units."

**Displaying detailed hardware configuration information**

The following describes how to operate the Hardware Detailed Configuration Display:

**CUI** Operation

1. From the Hardware Configuration menu, select [Hardware Detailed Configuration Display].  
The detailed hardware configuration information appears.

&lt;Example&gt;

```

PRIMEPOWER250 Node Name:plato03;Host ID:80f38002
SB Status:normal
CPU
CPU#0 Status:normal;Freq:1100;Cache:1.0;Impl.:5;Mask:0.6;OPTLB-way 2/2;IFTLB-way 2/2;OPLBS-way 2/2;IFLBS-way 2/2;SX-way 2/2
CPU#1 Status:normal;Freq:1100;Cache:1.0;Impl.:5;Mask:0.6;OPTLB-way 2/2;IFTLB-way 2/2;OPLBS-way 2/2;IFLBS-way 2/2;SX-way 2/2
CPUDDC#0 Status:normal
CPUDDC#1 Status:normal
Memory
SLOT#00 512MB used;Status:normal
SLOT#01 512MB used;Status:normal
SLOT#02 512MB used;Status:normal
SLOT#03 512MB used;Status:normal
SLOT#04 512MB used;Status:normal
SLOT#05 512MB used;Status:normal
SLOT#06 512MB used;Status:normal
SLOT#07 512MB used;Status:normal
SCSI-BP#0 Status:normal
SCSI-BP#1 Status:normal
DDC-A#0 Status:normal
DDC-B#0 Status:normal
U2P#3B Status:normal
  ebus0 Component-name:PCIO(Ebus)#0;Status:normal
  SCF Version:03.14.99

```

&lt;Explanation of the display&gt;

Detailed status information of the following hardware components appears: CPU, memory, disk, battery, channels, adapter, and devices. If a hardware fault is detected, a symbol indicating the status is displayed for the corresponding hardware component.



See

For information about the symbols indicating statuses, see Section 2.1.1, "Hardware configuration display function."

## 3.2.6 Hardware Monitoring Information

This section describes how to operate the hardware monitoring information menus.

### Displaying the Hardware Monitoring Information menu

#### **CUI** Operation

1. From the CUI menu, select [Hardware Monitoring Information].  
The Hardware Monitoring Information menu opens.

```

Hardware Monitoring Information

1. Management of Hardware Error Event
2. Battery Life Monitoring
3. Fan Monitoring
4. Setting Monitoring Notification Information
5. Notification Test

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-5,q,b,t,h):

```

### 3.2.6.1 Management of Hardware Error Event

This section describes how to operate the Management of Hardware Error Event function.

#### Displaying the Current abnormalities menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Management of Hardware Error Event]. The Current abnormalities menu opens.

```
Current abnormalities

Filtering/Sorting conditions

1. Date
   From:
   To :

2. Time
   From:
   To :

3. Type of unit: All
4. Order: Present -> Past
d. Display

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,d,q,b,t,h):
```

#### Retrieving hardware error events

Management of Hardware Error Event retrieves information indicating the part in the main unit where the error occurred and the error details.

##### **CUI** Operation

1. Specify the following items according to the menu to retrieve hardware error information:
  - Specify the display start date and display end date in Date.  
Error information generated in the specified range appears.  
If From is omitted, error information is displayed starting from the oldest information.  
If To is omitted, error information is displayed up to the latest information.  
If both From and To are omitted, all of the error information is displayed.
  - Enter the display start time and display end time in Time.  
The SCF error log in the specified time range appears.  
If From is omitted, the starting time is 00:00.  
If To is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified in From and 08:00 is specified in To, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.  
If 0501 to 0831 is specified for Date and 1700 to 0900 is specified for Time, the information logged from 17:00 of a day to 09:00 of the next day appears in the range of May 1 to August 31.

- Specify the component type in Type of unit.  
The error information for the specified component type appears.



#### Information

To see the list of the faulty parts, select "Faulty Parts."

- Specify the display order.  
Select whether information is displayed in reverse chronological order or chronological order.  
The default is "Present -> Past."

#### 2. Enter "d (display)".

Error information matching the search conditions appears.

The following information appears as error information:

- Date  
Displays a date (year, month, and day) and time when the error occurred in the part.
- Unit  
Displays the part name and identification number.

#### 3. Enter the number of the detailed information from the error information list.

The detailed faulty part information appears.

The detailed faulty part information includes:

- Location  
Displays the location of the part in which the error occurred.
- Status  
Displays the part status.
- Date  
Displays the date and time when the error occurred in the part.
- Reason  
Displays the cause of the error that occurred in the part.

The following operations are also possible:

- Hot swap  
Performs hot swapping of the part in which the error occurred.
- Reset the status  
Resets the status of the faulty part and deletes the status symbol displayed in "Hardware Configuration Display."  
The following message appears when the status is reset for a part in which the error status remains in effect.  
FJSVmadm:X:XXXX:Firm:Notification (Parts Status Reset Failure) occurred at MMM DD hh:mm:ss TZ

### 3.2.6.2 Monitoring battery life

This section describes how to operate the Battery Life Monitoring function.

If battery replacement is required, this is automatically reported to the specified system administrator and CE.

#### Displaying the Battery Life Monitoring menu

##### **CUI** Operation

1. From the Battery Life Monitoring Information menu, select [Battery Life Monitoring].  
The Battery Life Monitoring menu opens.

```
Battery Life Monitoring

1. Adding Battery Life Information
2. Displaying and Setting Battery Life Information
3. Deleting Battery Life Information
4. Setting Battery Life Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-4,q,b,t):
```

### Adding Battery Life Information

The following describes how to operate the Adding Battery Life Information function:

#### **CUI** Operation

1. From the Battery Life Monitoring Information menu, select [Adding Battery Life Information].  
The Adding Battery Life Information menu opens.
2. Specify the following information in the menu:
  - Battery  
Enter the battery identifier.  
For an UPS battery: UPS-B#n (n is the battery identification number.)  
For a disk array device battery: DARY-B#n (n is the battery identification number.)
  - Status  
Specify the battery status.  
Normal: Normal status  
Prepare: The expiration date of the battery life is approaching. A new battery for replacement needs to be prepared.  
Replace: The expiration date of the battery life is approaching. The battery needs to be replaced.  
Expire: The expiration date of the battery life has passed. The battery needs to be replaced immediately.
  - Life  
Enter the expiration date of the battery life.
  - Battery No.  
Enter the battery identification number as a number in the range of 0 to 999.  
The identification number is used to manage battery life.
  - Life  
Enter the expiration date of the battery life recorded on the label attached to the battery.  
However, for the F6403XX disk array device, enter a date two years after the manufacturing date recorded on the label attached to the battery.

### Displaying Battery Life Information

The following describes how to operate the Displaying Battery Life Information function:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Displaying and Setting Battery Life Information].  
The Displaying and Setting Battery Life Information menu opens.
2. Select [Displaying Battery Life Information].  
The battery life information appears.  
This information includes:

- Battery
  - The identifier of the battery
  - The battery name is displayed in the following formats:
  - For an UPS battery: UPS-B#n (n is the battery identification number.)
  - For a disk array device battery: DARY-B#n (n is the battery identification number.)
- Status
  - The battery status
  - Normal: Normal status
  - Error: A battery error was detected. The battery needs to be replaced.
  - Prepare: The expiration date of the battery life is approaching. A new battery for replacement needs to be prepared.
  - Replace: The expiration date of the battery life is approaching. The battery needs to be replaced.
  - Expire: The expiration month and year of the battery life has passed. The battery needs to be replaced immediately.
  - None: Not mounted.
- Life
  - Expiration date of the battery life

### Setting Battery Life Information

The following describes how to perform the Setting Battery Life Information operation.

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Displaying and Setting Battery Life Information].  
The Displaying and Setting Battery Life Information menu opens.
2. Select [Setting Battery Life Information].  
The Setting Battery Life Information menu opens.
3. Specify the following information in the menu:
  - Life  
Enter the expiration date of the battery life recorded on the label attached to the battery.  
However, for the F6403XX disk array device, enter a date two years after the manufacturing date recorded on the label attached to the battery.

### Deleting Battery Life Information

The following describes how to perform the Deleting Battery Life Information operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Deleting Battery Life Information].  
The battery life information list appears.
2. Select the battery to be deleted.
3. Perform the operation in accordance with the menu.

### Setting Battery Life Notification

The following describes how to perform the Setting Battery Life Notification operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Setting Battery Life Notification].  
The Setting Battery Life Notification menu opens.
2. Specify the following information in the menu:
  - Setting Time Period of Notification  
Specify the time period during which a notification is to be issued automatically.

Time period of prepare notification: During this time period, a notification is issued to prompt for preparation of a new battery for replacement when the expiration date of the battery life is approaching.

A time period of 24 to 2 months prior to the expiration date of the life can be specified. The default is "6 months prior to the expiration of the product life."

Time period of replace notification: During this time period, a notification is issued to prompt for replacement of the battery when the expiration date of the battery life is approaching.

A time period of 23 to 1 month prior to the expiration date of the battery life can be specified. The default is "4 months prior to the expiration of the product life."

### 3.2.6.3 Fan Monitoring

The following describes how to operate the Fan Monitoring function:

#### Displaying the Fan Monitoring menu

##### **CUI** Operation

- From the Hardware Monitoring Information menu, select [Fan Monitoring].  
The Fan Monitoring menu opens.

```
Fan Monitoring

  1. Displaying and Setting Fan Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1,q,b,t):
```

#### Displaying Fan Monitoring Information

The following describes how to operate the Displaying Fan Monitoring Information function:

##### **CUI** Operation

- From the Fan Monitoring menu, select [Displaying and Setting Fan Monitoring Information].  
The fan monitoring information appears.

This information includes:

- Fan

The identifier of the fan

The fan name is displayed in the following formats:

Fan Unit of Main : FAN#n (n is the fan identification number.)  
Cabinet

FEP Fan Unit of Main : FEPFAN#n (n is the fan identification number.)  
Cabinet

Fan Unit of Expansion : rci-address-FAN#n (n is the fan identification number.)  
Cabinet

cabinet-name#m-FAN#n (m is the cabinet identification number  
and n is the fan identification number.)

FEP Fan Unit of : rci-address-FEPFAN#n (n is the fan identification number.)  
Expansion Cabinet

- Status

Fan status

Normal: Normal status

Error: A fan error was detected. The part needs to be replaced.

Prepare: The expiration date of the service life of the fan is approaching. A new part for replacement needs to be prepared.

Replace: The expiration date of the service life of the fan. The part needs to be replaced.

Expire: The fan life has been exceeded. The part needs to be replaced immediately.

None: Not mounted.

- Power-on  
Power-on time of the fan unit

### Setting Fan Monitoring Information

The following describes how to perform the Setting Fan Monitoring Information operation:

#### **CUI** Operation

1. From the Fan Monitoring menu, select [Displaying and Setting Fan Monitoring Information].  
The Setting Fan Monitoring Notification list appears.
2. Select the fan whose setting is to be changed.
3. Enter the following information in the menu:
  - Power-on  
Fan Life Monitoring monitors the fan life according to the fan power-on time.  
If the fan was replaced, change its power-on time.  
The default is "0."  
If the main unit was installed again, the fan power-on time of all main units is "0." The setting value of the fan power-on time can be retained by saving the hardware monitoring information before reinstalling the main unit and by restoring the monitoring information after reinstalling the main unit.
  - Resetting Monitoring Information  
Reset the monitoring information if the fan has been replaced.

### 3.2.6.4 Disk Monitoring

Disk Monitoring is not a Machine Administration Menu item.

The Disk Monitoring function is automatically enabled at main unit startup.



#### Note

The Disk Monitoring function automatically monitors all connected devices.

For this reason, an application or driver error may occur if an operational conflict with other applications occurs or the disk array device is used.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSVmadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.



#### See

See Section 4.12, "nocheckdev (1M)."

### 3.2.6.5 Tape Unit Monitoring

Tape unit monitoring is not a Machine Administration Menu item.

The tape unit monitoring function is automatically enabled at main unit startup.



Note

The monitoring function automatically operates for all connected devices. For this reason, an application or driver error to the effect that the device is indicated as busy may occur if a device-open operation from another application conflicts with this function.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSVmadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.



See

See Section 4.12, "nocheckdev (1M)."

### 3.2.6.6 Setting Monitoring Notification Information

This section describes how to perform the Setting Monitoring Notification Information operation.

#### Displaying the Setting Monitoring Notification Information menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Setting Monitoring Notification Information].

The Setting Monitoring Notification Information menu opens.

```
Setting Monitoring Notification Information

 1. Mail address of the system administrator:root
    Memo
 2. Mail address of the CE : nobody
    Memo

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t,h):
```

#### Mail Address of the System Administrator

The following describes how to operate the set the mail address of the system administrator:

##### **CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Mail address of the system administrator].

The Mail Address of the System Administrator menu opens.

2. Enter the following information in the menu:
  - Mail address

Enter the mail address of the system administrator.

To send a notification to multiple system administrators, separate their mail addresses with a comma ",".

- Memo

Enter supplementary information. Use this information when sending memos to the system administrator.

A colon ":" cannot be entered.

### Mail Address of the CE

The following describes how to set the mail address of the CE:

#### **CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Mail address of the CE].  
The Mail Address of the CE menu opens.
2. Enter the following information in the menu:
  - Mail address  
Enter the mail address of the CE.  
To send a notification to multiple system administrators, separate their mail addresses with a comma ",".
  - Memo  
Enter supplementary information. Use this information when sending memos to the CE.  
A colon ":" cannot be entered.

### 3.2.6.7 Notification Test

This section describes how to operate Notification Test.

Executing Notification Test does not affect any of the monitoring operations.

#### Displaying the Notification Test menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Notification Test].  
The Notification Test menu opens.

```
Notification Test

Select the report-level of the pseudo hardware error.

1. ALARM
2. WARNING
3. NOTICE

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-3,q,b,t,h):
```

#### Notification Test

The following describes how to operate the Notification Test function:

#### **CUI** Operation

1. Select the test log level from the following three types:

- ALARM
  - WARNING
  - NOTICE
2. Set up the test log in accordance with the menu.



### Note

If the ALARM or WARNING level is selected, the associated error item is deleted from the Management of Hardware Error Event menu.



### Information

After setting up the test log, check for the following events:

- Verify that the following error message was recorded in the hardware error log and syslog:  
[Message:"FJSVmadm:X:TEST:SCF:Notification (This is a TEST log) occurred at MM DD hh:mm:ssTZ" (X=I,W,A)]
- Verify that the XSCF's mail notification and Machine Administration's mail notification have been issued.

## 3.2.7 Log Data

This section describes how to operate the various log data menus.

### Displaying the Log Data menu

#### **CUI** Operation

1. From the CUI menu, select [Log Data].  
The Log Data menu opens.

```
Log Data

 1. Hardware Error Log
 2. Message Log
 3. Power Log
 4. Disk Error Statistics Information
 5. Saving the Log Data
 6. Collecting System Information

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-6,q,b,t):
```

### 3.2.7.1 Message logs

This section describes how to display message logs.

**CUI** Operation

1. From the Log Data menu, select [Message Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Specification of range
    - Displays the message log data in the range of the specified dates.
    - If Starting date is omitted, the starting day is January 1.
    - If Completion date is omitted, the ending day is December 31.
    - If both Starting date and Completion date are omitted, the log in the range from the beginning to the end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.
    - <Example>
    - If October 1 is specified as Starting date and March 31 is specified as Completion date, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to the end of the log file.
  - Specification of Time (only)
    - Displays the message logs in the specified time range.
    - If Starting time is omitted, the starting time is 00:00.
    - If Completion time is omitted, the ending time is 23:59.
    - <Example>
    - If 20:00 is specified as Starting time and 08:00 is specified as Completion time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.
    - If 0501 to 0831 is specified in Specification of Range and 1700 to 0900 is specified in Specification of Time (Only), the log data from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
  - Retrieval character string
    - Retrieves and displays messages containing the specified character strings.
    - Multiple retrieval character strings can be specified.
    - If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any of the strings are to be displayed.
    - The default is "Any of the strings match."
    - Retrieval character string selects whether messages are to be retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."
  - Display order
    - Selects whether information is displayed starting from the latest or the oldest information.
    - The default is "latest information."

**3.2.7.2 Hardware error log**

This section describes how to display the hardware error log.

**CUI** Operation

1. From the System Log Administration menu, select [Display Hardware Error Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Date
    - Displays the hardware error log data in the range of the specified date.
    - If From is omitted, the oldest information in the log file is displayed.
    - If To is omitted, the latest information in the log file is displayed.

If both From and To are omitted, the log data in the range from the beginning to the end of the log file is displayed.

– Time

Displays the hardware error log data in the specified time range.

If From is omitted, the starting time is 00:00.

If To is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as From and 08:00 is specified as To, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.

If 0501 to 0831 is specified in Date and 1700 to 0900 is specified in Time, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

– Unit selection

Selects hardware whose error log is to be displayed.

The default is "All units."

All units	: All error logs
SB	: SB error log
CPU	: CPU error log
MEMORY	: Memory module error log
PCI	: Error log of the PCI slot and PCI card
FAN	: Error log of the fan built in the main units
PSU	: Error log of the power supply unit built in the main unit
RCI	: Error log of the equipment connected to the RCI network
DISK	: Error log of the disk built in the main unit
TAPE	: Error log of DAT built in the main unit
UPS	: Error log of the uninterruptible power supply
PANEL	: Panel error log
SCSI-BP	: SCSI-BP error log
DDC	: DDC error log
SDU	: Error log of SDU file unit
BATTERY	: Error log of the battery built in the UPS and disk array unit
OTHER	: All error logs other than above

– Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

– Display format

Displays the following information in the format of 2 lines per event:

No.	: Event number
Date	: Log storage time
Code	: Error code
Unit	: Replacement unit classification
Error details	: Details of an error



**Note**

If the clock setting of the operating system was changed by time resetting, the display order may differ from the event generation order.

### 3.2.7.3 Power log

This section describes how to display the power log.

**CUI** Operation

1. From the System Log Administration menu, select [Display Power log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range
 

Displays the power log data in the range of the specified date.  
If Display start date is omitted, the oldest information in the log file is displayed.  
If Display end date is omitted, the latest information in the log file is displayed.  
If both Display start date and Display end date are omitted, the log in the range from the beginning to end of the log file is displayed.
  - Time period
 

Displays the power log data in the specified time range.  
If Display start time is omitted, the starting time is 00:00.  
If Display end time is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.  
If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
  - Display order
 

Selects whether information is displayed starting from the latest or oldest information.  
The default is "latest information."

**Note**

If the clock setting of the operating system was changed by time resetting, the display order may differ from the event generation order or some part of the data may not be displayed.

**3.2.7.4 Disk Error Statistics Information**

This section describes how to display disk error statistics information.

**CUI** Operation

1. From the log data menu, select [disk error statistics information].
2. Use either of the following methods to specify in the menu the disk for which disk error statistics information is to be displayed:
  - Entering the name of the disk
 

Enter the name of the disk as displayed in the various messages or menu screens. The following types of names can be used:

    - sd driver instance name
    - logical device name (logical device name registered in /dev/rdisk)
    - physical device name (Unit name as registered in a message column)
  - Selecting the disk name from a list
 

Enter "L". A list displaying the names of all disks for which information can be displayed appears; select the target disk from this list.

### 3.2.7.5 Saving the log data

This section describes how to operate the Saving the Log Data function.

Saving the Log Data saves log data of various types. The following types of log data can be saved:

- All
- Message Log
- Machine Administration Monitoring Log
- SCF Error Log
- Power Log



Information

The CE uses the file in which the log data was saved, when hardware is faulty.

### Displaying the Saving the Log Data menu

#### **CUI** Operation

1. From the Log Data menu, select [Saving the Log Data].

The Saving the Log Data menu opens.

```
Saving the Log Data

1. All
2. Message Log
3. Machine Administration Monitoring Log
4. SCF Error Log
5. Power Log

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
To specify more than one, use a comma to delimit the number such as 2,3.
Do you specify information to be saved? (1-5,q,b,t,h):
```



Note

The menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



See

See Section 3.2.2, "Main Unit Models and Available Menus."

### Save Log Data to a File

#### **CUI** Operation

1. From the Save Log Data to a File menu, select the log data to be saved.
2. Enter the following information in the menu:
  - Save destination

Specify the save destination file name with the full path.

The file is created in tar format and is compressed with the “compress” command.

### 3.2.7.6 Collecting system information

This section describes how to operate the Collecting System Information function.

If a main unit error occurs, Collecting System Information outputs the following information to a file:

- Information relating to the hardware and software configurations, environment setting, logs, and operation statuses
- Information such as command execution results



Information

The CE uses the file in which system information was collected.

### Displaying the Collecting System Information menu

#### **CUI** Operation

1. From the Log Data menu, select [Collecting System Information].

The Collecting System Information menu opens.

```
Collecting System Information
System Information Menu

1. all
2. basic software
3. high availability
4. lp
5. network
6. storage array
If you want to select more than one, please separate the number by comma (,).

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,h,t):
```

### Collecting System Information

#### **CUI** Operation

1. From the Collecting System Information menu, select the system information to be collected.
2. Enter the following information in the menu:

- Collection Destination

Specify the name to the collection destination file with the full path.

The file is created in tar format and is compressed with the “compress” command.

## 3.2.8 Hot Swapping Guide

This section describes how to operate the Hot Swapping Guide menus.



Note

The CE performs the hardware maintenance.

### Displaying the Hot Swapping Guide menu

#### **CUI** Operation

1. From the CUI menu, select [Hot Swapping Guide].  
The Hot Swapping Guide menu opens.

```
Hot Swapping Guide

  1.The Faulty Hard Disk Drive Replacement (Hot Swap)
  2.Preventive Maintenance of the Hard Disk Drive (Hot Swap)
  3.Include the Hard Disk Drive after the Cold Maintenance
  4. Power Supply Unit of Main Cabinet
  5. Fan Unit of Main Cabinet
  6. Power Supply Unit of Expansion Cabinet
  7. Fan Unit of Expansion Cabinet

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,b,t):
```



Note

The menu items depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



See

See Section 3.2.2, "Main Unit Models and Available Menus."



Note

If Machine Administration ends abnormally during disk hot swapping, perform the hot swapping operation again from the beginning.

### 3.2.8.1 The Faulty Hard Disk Drive Replacement (Hot Swap)/Preventive Maintenance of the Hard Disk Drive (Hot Swap)/Include the Hard Disk Drive after the Cold Maintenance

See Appendix B, "Disk Drive Replacement," for information on how to use the menu for displaying the disk drive swapping guidance information.



Note

The CE replaces the hard disk.

### 3.2.8.2 Power Supply Unit of Main Cabinet

This section describes how to display the guidance information on hot-swapping the power supply of the main cabinet.



Note

The CE replaces the power supply unit of the main cabinet.

#### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Power Supply Unit of Main Cabinet].
2. From the Main Cabinet Power Supply Unit list, select the power supply unit to be replaced.  
The list shows the device names and statuses.
3. Replace the power supply unit in accordance with the guidance information.  
If no redundant power supply unit is mounted, the power supply unit of the basic cabinet is hot expanded.  
Add the device in accordance with the guidance information.

### 3.2.8.3 Fan Unit of Main Cabinet

This section describes how to display the guidance information on hot-swapping the fan unit of the basic cabinet.



Note

The CE replaces the fan unit of the basic cabinet.

#### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Fan Unit of Basic Cabinet].
2. From the Basic Cabinet Fan Unit list, select the fan unit to be replaced.  
The list shows the device names and statuses.
3. Replace the fan unit in accordance with the guidance information.  
When the fan unit is replaced, the power-on time of the new fan unit is automatically set to 0.

### 3.2.8.4 Power Supply Unit of Expansion Cabinet

This section describes how to display the guidance information on hot-swapping the power supply unit of the expansion cabinet.



Note

The CE replaces the power supply unit of the expansion cabinet.

#### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Power Supply Unit of Expansion Cabinet].
2. From the Expansion Cabinet Power Supply Unit list, select the power supply unit to be replaced.  
The list shows the device names and statuses.
3. Replace the power supply unit in accordance with the guidance information.

### 3.2.8.5 Fan Unit of Expansion Cabinet

This section describes how to display the guidance information on hot-swapping the fan unit of the expansion cabinet.



Note

The CE replaces the fan unit of the expansion cabinet.

#### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Fan Unit of Expansion Cabinet].
2. From the Expansion Cabinet Fan Unit list, select the fan unit to be replaced.  
The list shows the device names and statuses.
3. Replace the fan unit in accordance with the guidance information.  
When the fan unit is replaced, the power-on time of the new fan unit is automatically set to 0.

## 3.2.9 Auto Power Control System (APCS) Administration

This section describes how to operate the Auto Power Control System (APCS) Administration menus.

### Displaying the APCS Setup Menu

#### **CUI** Operation

1. From the CUI menu, select [System Control Administration].  
The System Control Administration menu opens.

```

System Control Administration

  1. Setting the External Equipment Wait Time
  2. Power Failure Recovery Waiting Time Setup (UPS)
  3. Auto Power Control System (APCS) Administration
  4. Server CHECK-LED Operation

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,q,b,t,h):

```

- From the System Control Administration menu, select [Auto Power Control System (APCS) Administration].

The APCS Setup menu opens.

```

APCS Setup Menu

  1. Start Schedule
  2. Stop Schedule
  3. Add Schedule Entry
  4. Add Holiday
  5. Select and Delete Schedule Entries
  6. Delete all
  7. List Schedule Entries
  8. Show Status of Schedule Entries

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-8,q,b,t,h):

```



#### Information

Use the `apcsset` command to set up forcible power-off mode and power recovery mode.



#### See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

### 3.2.9.1 Start Schedule

This section describes how to perform the Start Schedule operation.

#### **CUI** Operation

- From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.2.9.2 Stop Schedule

This section describes how to perform the Stop Schedule operation.

### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.

### 3.2.9.3 Add Schedule Entry

This section describes how to perform the Add Schedule Entry operation.

### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.
2. From the APCS Setup Menu, select [Add Schedule Entry].
3. Specify the following information in the menu:
  - Power On Time
  - Power Off Time
  - Specific Day
  - Specific days in this month
  - From a specific day through another specific day
  - Specific day of the week
4. From APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



#### Information

After adding schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time.

To check all schedules, use the `apcsset` command (-L option).

```
#!/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



#### See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.2.9.4 Add Holiday

This section describes how to execute the Add Holiday operation.

### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation starts.
2. From the APCS Setup Menu, select [Add Holiday].
3. Specify the following information according to the menu:
  - Holiday schedule (days when operation is not performed)
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries]

in that order.



#### Information

After adding holiday schedule entries, verify that the results were correctly reflected. Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the apcsset command (-L option).  
`#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>`



#### See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

- From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.2.9.5 Select and Delete Schedule Entries

This section describes how to perform the Select and Delete Schedule Entries operation.

#### **CUI** Operation

- From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.
- From the APCS Setup Menu, select [Select and Delete Schedule Entries].  
The schedule list appears.
- Perform operations according to the menu.  
The selected schedule or holiday schedule is deleted.
- From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



#### Information

After deleting schedule or holiday schedule entries, verify that the results were correctly reflected. Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the apcsset command (-L option).  
`#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>`



#### See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

- To continue operation according to the new schedule after completing selection and deletion, select [Start Schedule] from the APCS Setup Menu.  
Schedule operation starts.

### 3.2.9.6 Delete all

This section describes how to perform the Delete All operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.
2. From the APCS Setup Menu, select [Delete all].  
A message appears.
3. Perform operations according to the menu.  
All schedules and holiday schedules are deleted.
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



#### Information

After deleting all schedule and holiday schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time.

To check all schedules, use the apcsset command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



#### See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.2.9.7 List Schedule Entries

This section describes how to perform the List Schedule Entries operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [List Schedule Entries].  
The current schedule settings are displayed.  
These settings include:
  - STATUS  
Operation status of Auto Power Control System (APCS) Administration
  - daily  
Schedule that is repeated day by day
  - weekly  
Schedule that is repeated week by week
  - monthly  
Schedule that is repeated month by month
  - holiday  
Holiday schedule
  - special  
Specific-day's schedule

- forcedown  
Indicates the immediate start of shutdown processing when the shutdown time has arrived.
- normdown  
Displays a warning message on the display indicating that shutdown processing will start after three minutes.  
Power-off processing can be stopped by executing the apcscancel command during this three-minute period.
- exception  
Schedule not related to node stop

### 3.2.9.8 Show Status of Schedule Entries

This section describes how to perform the Show Status of Schedule Entries operation.

#### **CUI** Operation

1. From the APSC Setup Menu, select [Show Status of Schedule Entries].

The schedule status is displayed.

The schedule status information includes:

- STATUS  
Operation status of Auto Power Control System (APCS) Administration
- PRESENT  
Current date and time
- POWER-OFF  
First power-off time
- POWER-ON  
First power-on time
- OVER  
Last schedule time
- SCHEDULE OF 7 days NEXT  
Schedule for one week



#### Information

Show Status of Schedule Entries displays schedules for seven days after the current day and time.

To check all schedules, use the apcsset command (-L option).

```
#!/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



#### See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

### 3.2.10 eXtended System Control Facility (XSCF) Administration

This section describes how to operate the eXtended System Control Facility (XSCF) Administration menus.

## Displaying the eXtended System Control Facility (XSCF) Administration menu

### **CUI** Operation

1. From the CUI menu, select [eXtended System Control Facility (XSCF) Administration].  
The eXtended System Control Facility (XSCF) Administration menu opens.

```
eXtended System Control Facility (XSCF) Administration

  1. Network Configuration
  2. User Account Administration
  3. Console Administration
  4. XSCF Web Administration
  5. SNMP Administration
  6. Mail Administration

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,b,t,h):
```

### 3.2.10.1 Network Configuration

This section describes how to perform the Network Configuration operation.

### **CUI** Operation

1. From the eXtended System Control Facility (XSCF) Administration menu, select [Network Configuration].
2. Specify the following information in the menu:
  - IP Address  
Enter the IP address.
  - Subnet Mask  
Enter the subnet mask.
  - Gateway Address  
Enter the gateway.
  - XSCF Host Name  
Enter the host name.  
Specify the host name with a full domain.  
The usable characters are alphanumeric characters (a-z, A-Z, and 0-9), - (hyphen), and . (period).  
Up to 63 characters can be used.  
To send mail from XSCF, be sure to specify this item.
  - Name Server 1  
Enter name server 1.
  - Name Server 2  
Enter name server 2.
3. Select [Save Configuration].  
The network setting information is reflected to XSCF.

### 3.2.10.2 User Account Administration

This section describes how to perform the User Account Administration operation.

#### **CUI** Operation

1. From the eXtended System Control Facility (XSCF) Administration menu, select [User Account Administration].
2. Specify the following information in the menu:
  - Show User List  
Lists the XSCF shell users and their subordinate groups.  
The maximum number of user accounts is 8. The local group is either root or other.
  - Add User  
Lists the registered users and their local groups.  
Moreover, displays the following submenu:
    - Add User  
If the number of registered user accounts is less than eight, select a user from the submenu.  
Select this menu and enter a user name according to the guidance information.  
Specify the user name as a string of up to eight alphanumeric characters.  
Next, when the local group is selected, the user is added.  
To enable the user to use the XSCF shell, set a password.
  - Delete User  
Deletes the user selected from the list of the registered users.
  - Update Password  
Sets or changes the password of the user selected from the list of registered users.  
Characters that can be used for the password are alphanumeric characters and symbols excluding space.  
A password consists of 8 to 16 characters.

### 3.2.10.3 Console Administration

This section describes how to perform Console Administration.

#### **CUI** Operation

1. From the eXtended System Control Facility (XSCF) Administration menu, select [Console Administration].
2. Specify the following information in the menu:
  - Show User List  
Lists the Console Administration information.
 

console	:	Input and output destinations of the standard console of the main unit
RW-port	:	Current status of port 23 (standard console)
RO-port	:	Current status of port 8011 (read-only console)
SCF-port	:	Current status of port 8010 (remote XSCF connection and XSCF shell)
timeout	:	<enable or disable> Status of the automatic no-communication disconnection function of an XSCF shell
time	:	<time> Status of the automatic no-communication disconnection function of an XSCF shell However, time is displayed only when timeout is set to "enable."
  - Select Standard Console  
Change the setting for the standard console.

- Serial Port  
Switches the input-output channels of the standard console to the ordinary serial port.
- LAN Port  
Switches the input-output channels of the standard console to the XSCF LAN.



### Information

XSCF controls the standard console (/dev/console) of the main unit using a network via TCP port 23 of XSCF. The serial port can also be used as usual.

- Access Control of Read-only Console  
Switches enabling and disabling of access to XSCF port 8011 (read only port used to reference /dev/console output of the main unit).
- Access Control of XSCF remote control  
Switches enabling and disabling of access to the XSCF port 8010 (XSCF shell port used to remotely control XSCF itself).
- Auto-disconnect Administration of XSCF remote control  
For the case that no communication occurs during a given time after login to the XSCF shell, sets the disconnection time as 1 to 255 minutes. The default is "10 minutes." If 0 is specified, using the automatic disconnection function with a timeout is disabled.

### 3.2.10.4 XSCF Web Administration

This section describes how to perform XSCF Web Administration.

#### **CUI** Operation

1. From the eXtended System Console Facility (XSCF) Administration menu, select [XSCF Web Administration].
2. Specify the following information in the menu:
  - XSCF displays or makes various settings using the http protocol. Related to this operation, specify the following:
    - Show Current Configuration  
Lists various settings for the http protocol.
    - Enable/Disable XSCF Web  
Selects the access mode through the http protocol from the following:
      - Enable with Read/Write Mode  
Enables change of settings using the http protocol.
      - Enable with Read/Only Mode  
Enables referencing information using the http protocol.
      - Disable  
Disables the use of the http protocol.
    - Select Locale  
Selects the locale of the displayed web page from the following:
      - C (english)
      - ja (japanese)
    - Appearance of Web Page  
Selects the Web page screen configuration from the following items:

- Text Only
- Text and Images
- Access Control
 

Registers or changes the hosts that are allowed to access through the http protocol.  
XSCF cannot be accessed from an IP address other than the allowed IP addresses through the http protocol.

  - IP Address
 

Up to 16 IP addresses can be registered. A range of IP addresses cannot be specified.
  - Host X
 

If a registered host is selected, changes the current setting.  
If the Return key is pressed with no input, the current setting is deleted.
  - Add an Access-allowed Host
 

Adds a new host that is allowed to make accesses.  
If the number of hosts that are already set is 16 or less, select items from the submenu.
  - Save Configuration
 

Registers the access-allowed host information in XSCF.

### 3.2.10.5 SNMP Administration

This section describes how to perform the SNMP Administration operation.

#### **CUI** Operation

1. From the eXtended System Control Facility (XSCF) Administration menu, select [SNMP Administration].
2. Specify the following information:
 

XSCF manages networks using the SNMP protocol. Related to this operation, specify the following:

  - Show Current Configuration
 

Lists settings for the SNMP.
  - Enable/Disable SNMP
 

Select the SNMP protocol from the following items:

    - Enable SNMP Agent
    - Disable SNMP Agent
  - Management Information
 

Sets SNMP management information.  
Any one of the items that can be specified in the menu can be omitted.

    - SysContact
 

Enter the administrator name in ASCII (up to 15 characters).  
If the Return key is pressed with no input, the setting is deleted.
    - SysName
 

Enter the equipment name in ASCII (up to 15 characters).  
If the Return key is pressed with no input, the setting is deleted.
    - SysLocation
 

Enter the equipment location in ASCII (up to 15 characters).

- If the Return key is pressed with no input, the setting is deleted.
  - Save Configuration
    - Management information is reflected to XSCF.
  - Register Community
    - Displays the SNMP community registration and setting submenu opens.
    - Up to two communities can be registered.
    - When a new community is registered:
      - Community Name
        - Enter the community name in ASCII (up to 11 characters).
      - SNMP Manager Address
        - Specify the IP address of the SNMP manager.
        - When 0.0.0.0 is specified for manager's IP address, the access from all the managers is permitted.
        - The trap is not issued regardless of the setting of the trap issue mode in this case.
      - Access Mode
        - Select the access method of the manager from the following:
          - Read Only
          - Read Write
      - SNMP Trap Notification
        - Select whether to send an SNMP trap notification to the manager.
          - Valid
          - Invalid
      - Save Configuration
        - The community-related information is reflected to XSCF.
    - When a registered community is changed:
      - Select a community name.
      - After selecting the community name, perform the same operation as when a new community is registered.
  - Delete Community
    - Deletes the selected item from the list of the registered communities.

### 3.2.10.6 Mail Administration

This section describes how to perform the Mail Administration.

#### **CUI** Operation

1. From the eXtended System Control Facility (XSCF) Administration menu, select [Mail Administration].
2. Specify the following information in the menu:
  - XSCF sends out an E-mail about generated errors. Related to this operation, specify the following:
    - Show Current Configuration
      - Lists settings for the mail report.
    - Details Setup of the Mail
      - Enable Mail Report (and Setup)
        - To:

Specify the address of the mail destination (system administrator).

If multiple mail destinations are specified, separate them with a comma (,).

Up to 255 characters (ASCII) can be entered.

This item is required. However, if the mail report function is disabled, this item is cleared at that time.

- From:

Specify the contents to be coded in the From header of mail.

Up to 47 characters (ASCII) can be entered.

This item is required. If the mail report function is disabled, this item is cleared at that time.

- SMTP Server 1 and 2

Sets the SMTP server.

Up to two servers can be specified.

If the Return key is pressed with no input, the setting is deleted.

- Save Configuration

The mail report setting is reflected to XSCF.

- Disable Mail Report

Disables the mail report of XSCF.

If the mail report is disabled, the destination mail address, source mail address, and SMTP server are cleared.

- Send Test Mail

Sends the test mail from XSCF.

## 3.2.11 RCI-related Settings

This section describes how to operate the RCI-related Settings menus.

### Displaying the RCI-related Settings menu

#### **CUI** Operation

1. From the CUI menu, select [RCI-related Settings].  
The RCI-related Settings menu opens.

```

RCI-related Settings

  1. Displaying a List of RCI Devices
  2. Confirming the RCI-connected Units
  3. Reconfiguring the RCI Network(RCI Device Addition)
  4. RCI Device Replacement

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-4,q,b,t,h):4
  
```

#### 3.2.11.1 Display Current RCI Configuration

This section describes how to perform the Display Current RCI Configuration operation.

**CUI** Operation

1. From the Remote Cabinet Interface (RCI) Administration menu, select [Display Current RCI Configuration].

The RCI statuses of the local host are explained below.

- RCI address  
RCI address of the main unit
- Status  
RCI status
  - Active : RCI active status
  - Mainte : RCI maintenance mode in effect
  - Configuring : RCI network construction in progress
  - ConfigError (reason) : RCI network construction error  
reason indicates the reason for the error.

reason	Reason for error
"Self Host Address Conflict"	Local address duplication error
"Host Address Contradict"	Inconsistency between the host count and host addresses
"RCI Address Contradict"	RCI address inconsistency
"Can't assign new Address"	New registration impossible
"Error in Configuring"	Error during installation
"Self configuration RCI AddressConflict"	Error in self-configuration: RCI address duplicate
"RCI Hardware Error"	RCI hardware error

The following explains the list of the devices connected to RCI:

- address  
RCI address
- pwr  
Power status of the RCI device
  - ON : Power-on status
  - OFF : Power-off status
- alm  
Alarm generation status
  - ALM : Alarm generation
  - : No alarm
- I/F  
I/F status of the RCI device
  - ACT : Active
  - INACT : Inactive
- sys-phase  
OS status
  - power-off : Power-off status
  - panic : Panic status
  - shdwn-start : Shutdown in progress
  - shdwn-cmplt : Shutdown completed
  - dump-cmplt : Dump completed
  - initializing : Initial diagnosis in progress
  - booting : Booting in progress
  - running : In operation

- ctgry  
RCI device category
  - Host : Main unit
  - Rcic : External power control device
  - Disk : Disk unit
  - Linsw : Line switching unit
  - Other : Other devices
- dev-cls  
RCI device class. Displayed as a 4-digit hexadecimal number.
- sub-cls  
Subclass of the RCI device. Displayed as a 2-digit hexadecimal number.

### 3.2.11.2 Confirming the RCI-connected Units

This section describes how to perform the Confirming the RCI-connected Units operation.

#### **CUI** Operation

1. From the RCI-related Settings menu, select [Confirming the RCI-connected Units].
2. From Display Current RCI Configuration, select the device whose connection is to be checked.  
The check lamp of the specified device blinks.
3. Exit [Confirming the RCI-connected Units].  
The check lamp of the specified device goes off.

### 3.2.11.3 Reconfiguring the RCI Network (RCI Device Addition)

This section describes how to perform the Reconfiguring the RCI Network operation.

#### **CUI** Operation

From the RCI-related Settings menu, select [Reconfigure the RCI Network (RCI Device Addition)].  
The RCI network is reconfigured.



#### Information

The time required for the setting to be completed depends on the number of cabinets connected to the network.

### 3.2.11.4 RCI Device Replacement

This section describes how to make the settings for RCI device replacement.

#### **CUI** Operation

1. From the RCI-related settings menu, select "RCI Device Replacement."  
The RCI devices that can be replaced are listed.
2. Select the device to be replaced.
3. Make sure that the LED on the selected device is blinking, then replace the device.
4. After finishing replacement, display a listing of RCI devices.

## 3.2.12 System-Specific Administration

This section describes how to operate the System-Specific Administration menus.

### Displaying the Power System Administration menu

#### **CUI** Operation

1. From the CUI menu, select [System Control Administration].  
The Power System Administration menu opens.

```
Power System Administration

1. Setting the External Equipment Wait Time
2. Power Failure Recovery Waiting Time Setup (UPS)
3. Auto Power Control System (APCS) Administration
4. Server CHECK-LED Operation

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,q,b,t,h):
```

### 3.2.12.1 Setting the External Equipment Wait Time

This section describes how to perform the Setting the External Equipment Wait Time operation.

#### **CUI** Operation

1. From the System Control Administration menu, select [Setting the External Equipment Wait Time].  
The RCI address list for the external power control device appears.
2. Select the device to which the external equipment is connected.
3. Set the external equipment wait time.  
Specify the value in the range of 0 to 85 (minutes).



#### Note

If the external power control device is selected, the external equipment wait time is set for the main unit at the same time.

If the main unit is selected, only the external equipment wait time of the main unit is valid.

All external equipment wait times of unselected external power control devices are invalid.

### 3.2.12.2 Setting waiting time for shutdown at power failure

This section describes how to perform the Setting Waiting Time for Shutdown at Power Failure operation.

#### **CUI** Operation

1. From the System Control Administration menu, select [Setting waiting time for shutdown at power failure]. The current wait time appears.

2. Specify the waiting time for shutdown at power failure.  
Specify this value in the range of 0 to 9999 (seconds).  
The default is "10 seconds."

### 3.2.12.3 Server CHECK-LED Operation

This section describes how to perform the Server CHECK-LED Operation operation.

#### **CUI** Operation

1. From the System Control Administration menu, select [Server CHECK-LED Operation].  
The CHECK-LED of the main unit comes on.
2. Close the System Control Administration menu.  
CHECK-LED of the main unit goes off.

### 3.2.13 Setting Up and Testing the AP-Net

This section describes how to perform the Setting Up and Testing the AP-Net operation.



The CE performs Setting Up and Testing the AP-Net.

#### Displaying Option Menu

#### **CUI** Operation

1. From the CUI menu, select [Option Menu].  
The Option menu opens.

```
Option Menu

  1. Setting Up and Testing the AP-Net

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1,q,b,t,h):
```

#### Setting up the AP-Net

#### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:

Select [Initial setup].

3. Select [Initialize and test of AP-Net case] from the menu.
4. From this point, perform operations according to the menu.
5. Check the setting.

If an error is detected, perform the setting again.

### Testing AP-Net connection

#### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
3. From the menu, select [Connection test of MSC-RTC].
4. From this point, perform operations according to the menu.  
When the AP-Net connection test finishes, [All tests ended (return)] appears.

## 3.2.14 Firmware Administration



#### Note

The following operation should only be performed by a certified service engineer.

This section describes how to operate the Hardware Control Program (HCP) Administration menus.

### Displaying the Hardware Control Program (HCP) Administration menu

#### **CUI** Operation

1. From the CUI menu, select [Hardware Control Program (HCP) Administration].  
The Hardware Control Program (HCP) Administration menu opens.

```
Hardware Control Program (HCP) Administration
```

- ```
1. HCP File Operation
2. Update Baseboard Firmware
3. Disk Firmware Administrator
```

```
q:Quit b:Back to previous menu t:Go to top menu h:Help
```

```
-----
Select. (1-3,d,q,b,t,h):
```

### 3.2.14.1 HCP File Operation

This section describes how to use HCP File Operation.



Note

The following operation should only be performed by a certified service engineer.

#### Show/Delete the Registered HCP

##### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [HCP File Operation].
2. From the HCP File Operation menu, select [Show/Delete the Registered HCP].  
A list of the registered firmware appears.
3. To delete firmware, select the firmware to be deleted from the list and perform operations according to the menu.  
The selected firmware is deleted.

#### Show/Register the Supply HCP

##### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [HCP File Operation].
2. From the HCP File Operation menu, select [Show/Register the Supply HCP].  
Information about firmware stored on the HCP CD-ROM or in the working directory appears.
3. Select the firmware to be registered from the list and perform operations according to the menu.  
The selected firmware is registered.

### 3.2.14.2 Update Firmware of Main Unit

This section describes how to perform the Update Baseboard Firmware operation.



Note

The following operation should only be performed by a certified service engineer.

#### Show/Update Current Baseboard Firmware

##### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Update Baseboard Firmware].
2. From the Update Baseboard Firmware menu, select [Show/Update Current Baseboard Firmware].  
Information about which firmware has been applied to the main unit is displayed.
3. Select the firmware to be applied to the current environment from among the registered firmware, and perform the required operations according to the menu.  
The selected firmware is applied to the main unit.

## Update History

### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Update History].
2. From the Update Baseboard Firmware menu, select [Update History].

The update history of the main unit firmware is displayed.

### 3.2.14.3 Disk Firmware Administrator

This section describes how to operate the Disk Firmware Administrator function.

Disk firmware is distributed as HCP data together with the main unit firmware, and is automatically registered concurrently with registration of the main unit firmware. However, after the registration, the disk firmware and main unit firmware are separately managed. The registered main unit firmware can be deleted from the menu; however, the registered disk firmware cannot be deleted.



Note

The following operation should only be performed by a certified service engineer.

### The Indication of the Update Applicable Disk List

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Disk Firmware Administrator].
2. From the Disk Firmware Administrator menu, select [The indication of the update applicable disk list].

A list of the disks registered as subject to firmware updating by Machine Administration is displayed from among the disks currently connected.

### The Indication of Update Log

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Disk Firmware Administrator].
2. From the Disk Firmware Administration menu, select [The indication of update log].

The update history of the disk firmware is displayed.

### The Practice of Update Firmware

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Disk Firmware Administrator].
2. From the Disk Firmware Administrator menu, select [The practice of update firmware].

A list of the registered disk firmware appears.

3. Select the disk firmware to be applied.

A list of the disks to which the selected firmware can be applied appears.

4. Select the disk to which the firmware is to be applied. (Multiple disks can be selected.)

Firmware update is performed.

### 3.2.15 Diagnostic Program

This section describes how to operate the FJVTS Diagnostic Program menu.

#### Displaying the FJVTS Diagnostic Program menu (for the CUI menu)

##### **CUI** Operation

1. From the CUI menu, select [FJVTS Diagnostic Program].

The FJVTS Diagnostic Program menu opens.

```
FJVTS Diagnostic Program

  1. Executed from this terminal
  2. Execution from the X terminal specified by the DISPLAY environment
     variable

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t,h):
```

#### Executed From This Terminal (for the CUI menu)

##### **CUI** Operation

1. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Executed from this terminal].  
FJVTS is started as the diagnostic program.
2. From the FJVTS screen, select [START].  
Diagnosis starts.
3. After diagnosis finishes, select [Quit UI and Kernel] from [quit] of the FJVTS screen.
4. Press the [Return] key.  
The original screen reappears.

#### Execution From the X Terminal Specified by the DISPLAY Environment Variable (for the CUI menu)

##### **CUI** Operation

1. Specify the display name used by the diagnostic program during startup in the environment variable.
2. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Execution from the X terminal specified by the DISPLAY environment variable].  
FJVTS is started as the diagnostic program.
3. From the FJVTS screen, select [START].  
Diagnosis starts.
4. After diagnosis finishes, select [Quit UI and kernel] from [quit] of the FJVTS screen.

5. Press the [Return] key.  
The original screen reappears.



See

For information on the method of using FJVTS, see the following manuals:

*"SunVTS User's Manual"*

*"SunVTS Test Reference Manual"*

*"FJVTS Test Reference Manual"*



Note

The following notes must be observed when Machine Administration executes the diagnostic program (FJVTS):

- For execution with the OpenWindows interface from the GUI menu, select the FJVTS Diagnostic Program menu or Diagnostic Program menu of Machine Administration and then specify the display destination DISPLAY according to the screen.

At the display destination DISPLAY, set the X-Windows access permissions in advance using the xhost command.

- For execution with the OpenWindows interface from the CUI menu, specify the display destination DISPLAY in the environment variable before starting Machine Administration.

Example: `setenv DISPLAY HOST_NAME:0`

- When FJVTS is executed from the GUI menu, the user interface may fail to start due to an X environment setting error (for example, because xhost was not specified). (Keep this in mind because, if this happens, no error message may appear in some cases.) However, no problem will occur if the X environment is set up later and FJVTS is re-executed.

### 3.2.16 Remote Customer Support System (REMCS) Setup menu

This section describes how to operate the Remote Customer Support System (REMCS) Setup menu.

Service for this function is provided free of charge within the warranty period.

A separate contract is required after the warranty has expired. For more information about the warranty period and the contract, contact your Fujitsu sales representative.

#### Starting Remote Customer Support System (REMCS) Setup menu (not registered)

##### **CUI** Operation

1. From the CUI menu, select [Remote Customer Support System (REMCS) Setup].  
The Remote Customer Support System (REMCS) Setup menu opens.

```

Remote Customer Support System(REMCS) Setup menu
Series name : PRIMEPOWER#P##
Model name : PWOLBS111###
Check code : MB
Serial No : 234567#####

Setting of Connection Type
 1. Internet Connection
 2. Internet Connection (Mail only)
 3. Management Server Connection
 4. Point-to-Point connection (ISDN)
 5. Point-to-Point connection (VPN)

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-5,q,b,t,h):

```



2. Perform operations according to the menu.

| Menu name                        | Function                                                                                                   |
|----------------------------------|------------------------------------------------------------------------------------------------------------|
| Internet Connection              | Connects to the REMCS Center using mail or HTTP via the Internet.                                          |
| Internet Connection (Mail only)  | Connects to the REMCS Center via the Internet, using only mail.                                            |
| Management Server Connection     | Connects to the REMCS Center via the management server. A separate management server must be set provided. |
| Point-to-Point Connection (ISDN) | Connects to the REMCS Center through ISDN.                                                                 |
| Point-to-Point Connection (VPN)  | Connects to the REMCS Center through VPN.                                                                  |



For information on REMCS Agent, see the following manual:  
*REMCS Agent Operator's Guide*

## Starting Remote Customer Support System (REMCS) Setup menu (registered)

### **CUI** Operation

1. From the CUI menu, select [Remote Customer Support System (REMCS) Setup].  
The Remote Customer Support System (REMCS) Setup menu opens.

```

Remote Customer Support System(REMCS) Setup menu
Series name : PRIMEPOWER#P##
Model name : PWOLBS111###
Check code : MB
Serial No : 234567#####

1. Registration
2. REMCS Environment Setting
3. REMCS Operation
4. Change Connection Type
5. Software Investigation Information Collection
6. REMCS Environment Setting via XSCF

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,b,t,h):
    
```



2. Perform the required operations according to the menu.

| Menu name                                     | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Registration                                  | Executes registration from REMCS Agent to send or register the customer information and device information.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| REMCS Environment Setting                     | Sets the environment for operating REMCS Agent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| REMCS Operation                               | Sets registration and the REMCS environment, and starts services after successfully confirming connection to the REMCS Center.                                                                                                                                                                                                                                                                                                                                                                                                 |
| Change Connection Type                        | Selects the method of connection between customers and the REMCS Center.<br>The supported connection methods include Internet Connection, Management Server Connection, and Point-to-Point connection.                                                                                                                                                                                                                                                                                                                         |
| Software Investigation Information Collection | When a problem occurs that cannot be automatically detected (such as a software operation error), collects investigation information using a simple procedure and sends it to the REMCS Center.                                                                                                                                                                                                                                                                                                                                |
| REMCS Environment Setting via XSCF            | REMCS Agent always monitors the device status. If a hardware failure occurs, the REMCS automatically detects it, reports the error immediately to the REMCS Center, and also sends information required for fault analysis (log, memory dump, etc.) to the center. The agent continuously monitors device cabinet temperatures and regularly sends the respective statistical information to the center. The center analyzes the received information to identify the cause of failures and for preventive failure monitoring. |



For information on REMCS Agent, see the following manual:

*REMCS Agent Operator's Guide*

## 3.2.17 Version Information

This section describes how to perform the Version Information referencing operation.

### **CUI** Operation

1. From the CUI menu, select [Version Information].

Version information is displayed.

<Example>

```

Version Information

Enhanced Support Facility  Software Revision: 2.4.1      ----(1)
  FJSYpmd                 Version: 1.1           Revision: 2003.12.0900  --
  FJSYmadm                Version: 1.1.2         Revision: 2004.05.1100  }
  FJSYmasv                Version: 2.2.1         Revision: 2003.11.1100  }----(2)
  FJSYmaom                Version: 1.8.1         Revision: 2004.05.1800  }
  FJSYpirm                Version: 1.1           Revision: 2003.12.0200  --

Information about patches:
  FJSYpmd                 Patch: 913358-03         ----(3)
  FJSYmadm                Patch: 913602-01
Hit return key

```

- (1) ESF version
- (2) Package version of machine administration
- (3) Information of patches applied to machine administration

## 3.3 PRIMEPOWER650/850/900/1500/2500/HPC2500

This Section describes how to operate Machine Administration menu.

The operation method for the individual functions is described with the operations used when CUI menus are used.

### 3.3.1 Starting and Exiting Machine Administration Menu

This section describes how to start and exit Machine Administration menu.

- Starting Machine Administration Menu
- Exiting Machine Administration Menu
- How to read the Machine Administration Menu

#### 3.3.1.1 Starting Machine Administration Menu

This section describes how to start the CUI menu and GUI menu.

##### CUI menu

##### **CUI** Operation

1. Make sure that the command prompt is displayed on the UNIX screen.
2. Enter the following start command:

```
# /usr/sbin/FJSVmadm/madmin
```

The top menu of the CUI menu opens.



See [See section 4.11, "madmin \(1M\)."](#)

#### 3.3.1.2 Exiting Machine Administration Menu

This section describes how to close the CUI menu or GUI menu.

##### CUI menu

##### **CUI** Operation

1. Enter the number of "Exit".

Machine Administration menu exits.

#### 3.3.1.3 How to read the CUI menu

**CUI** The top menu of the CUI menu is shown below.

The following shows the CUI menus corresponding to the main unit model.

### When the main unit model is PRIMEPOWER650/850/900/1500/2500/HPC2500

```

Machine Administration Menu

1. Hardware Configuration Displays
2. Hardware Monitoring Information
3. Remote Cabinet Interface (RCI) Administration
4. UPS Administration
5. System Log Administration
6. Maintenance/Swapping Administration
7. System-Specific Administration
8. FJYTS Diagnostic Program
9. Remote Setup
10. Auto Power Control System (APCS) Administration
11. Option Menu
12. Machine Administration Version/Patch Information
13. Exit

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-13,q,h):

```

<Explanation of the display>

- (1): Enter the desired item at the location of the cursor.
- 1-13: To select a menu, enter the menu number.
- q : If you want to quit the operation, enter "q".
- h : If you want to display help, enter "h".



Note

Some menu items may be unusable even if they are displayed.



See

See Section 3.3.2, "Main Unit Models and Available Menus."

## 3.3.2 Main Unit Models and Available Menus

In Machine Administration, the menu provided depends on the main unit model to be monitored.

The tables below show the relationships between main unit models and available menus.

### How to read the tables

- The table below shows the meanings of the symbols.

| Symbol | Meaning                                                                                                                                                                                                                                                                                   |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y      | The appropriate function is available in the CUI menu and GUI menu.                                                                                                                                                                                                                       |
| N      | The appropriate function is unavailable.                                                                                                                                                                                                                                                  |
| *1     | The appropriate function is available only in the CUI menu.                                                                                                                                                                                                                               |
| *2     | The appropriate function is available only in the GUI menu.                                                                                                                                                                                                                               |
| *3     | The appropriate function is available in System Management Console.<br><br><a href="#">See</a> For information about System Management Console, see the " <i>System Console Software User's Guide</i> ". |
| *4     | The appropriate function is available but the appropriate menu is unavailable.<br>Log data is collected.                                                                                                                                                                                  |

## Main unit models and available menus

| Menu name                                                | Main unit         |                                 | Reference destination of function explanation | Reference destination of operation explanation |
|----------------------------------------------------------|-------------------|---------------------------------|-----------------------------------------------|------------------------------------------------|
|                                                          | PRIMEPOWER650/850 | PRIMEPOWER900/1500/2500/HPC2500 |                                               |                                                |
| <b>Hardware Monitoring Function</b>                      |                   |                                 |                                               |                                                |
| Hardware Configuration Display                           |                   |                                 |                                               |                                                |
| Display Basic System Information                         | *1                | *1                              | 2.1.1                                         | 3.3.5                                          |
| Display Detailed Hardware and Partition Information      | *1                | *1                              | 2.1.1                                         | 3.3.5                                          |
| Hardware Monitoring Information                          |                   |                                 |                                               |                                                |
| Battery Life Monitoring                                  | *1                | *3                              | 2.1.2                                         | 3.3.6.1                                        |
| Disk Monitoring                                          | *4                | *4                              | 2.1.2                                         | 3.3.6.2                                        |
| Tape Unit Monitoring                                     | *4                | *4                              | 2.1.2                                         | 3.3.6.3                                        |
| Setting Monitoring Notification Information              | *1                | *3                              | 2.1.2                                         | 3.3.6.4                                        |
| Saving/Restoring Hardware Monitoring Information         | *1                | *1                              | 2.1.2                                         | 3.3.6.5                                        |
| Management of Hardware Error Event                       | *1                | *1                              | 2.1.2                                         | 3.3.6.6                                        |
| Displaying and Setting Memory Monitoring Information     | *1                | *1                              | 2.1.2                                         | 3.3.6.7                                        |
| Displaying and Setting CPU Monitoring Information        | *1                | *1                              | 2.1.2                                         | 3.3.6.8                                        |
| <b>Log Data Function</b>                                 |                   |                                 |                                               |                                                |
| System Log Administration                                |                   |                                 |                                               |                                                |
| Memory Error Information                                 | N                 | *3                              | 2.2                                           | -                                              |
| Display Operation System Message Log                     | *1                | *1                              | 2.2                                           | 3.3.7.1                                        |
| Display Hardware Error Log                               | *1                | *1                              | 2.2                                           | 3.3.7.2                                        |
| SCF Error Log                                            | N                 | *3                              | 2.2                                           | -                                              |
| Thermal Error Log                                        | N                 | *3                              | 2.2                                           | -                                              |
| Fan Error Log                                            | N                 | *3                              | 2.2                                           | -                                              |
| Power Error Log                                          | N                 | *3                              | 2.2                                           | -                                              |
| Power-failure/Power-recovery log                         | N                 | *3                              | 2.2                                           | -                                              |
| Display Power Log                                        | *1                | *3                              | 2.2                                           | 3.3.7.3                                        |
| Display Report Log                                       | *1                | *1                              | 2.2                                           | 3.3.7.4                                        |
| Disk Error Statistics Information                        | *1                | *1                              | 2.2                                           | 3.3.7.5                                        |
| Save Log Data to a File                                  | *1                | *1                              | 2.2                                           | 3.3.7.6                                        |
| Collecting System Information with fjsnap                | *1                | *1                              | 2.2                                           | 3.3.7.7                                        |
| <b>Maintenance Guide Function</b>                        |                   |                                 |                                               |                                                |
| Maintenance/Swapping Administration                      |                   |                                 |                                               |                                                |
| The Faulty Hard Disk Drive Replacement (Hot Swap)        | Y                 | Y                               | 2.3                                           | Appendix B                                     |
| Preventive Maintenance of the Hard Disk Drive (Hot Swap) | *1                | *1                              | 2.3                                           | Appendix B                                     |
| Include the Hard Disk Drive after the Cold Maintenance   | *1                | *1                              | 2.3                                           | Appendix B                                     |
| Power Supply Unit of RCI Device                          | *1                | N                               | 2.3                                           | 3.3.8.2                                        |
| Fan Unit of RCI Device                                   | *1                | N                               | 2.3                                           | 3.3.8.3                                        |

| Menu name                                           | Main unit         |                                 | Reference destination of function explanation | Reference destination of operation explanation |
|-----------------------------------------------------|-------------------|---------------------------------|-----------------------------------------------|------------------------------------------------|
|                                                     | PRIMEPOWER650/850 | PRIMEPOWER900/1500/2500/HPC2500 |                                               |                                                |
| <b>Automatic Power Control Function</b>             |                   |                                 |                                               |                                                |
| Auto Power Control System (APCS) Administration     |                   |                                 |                                               |                                                |
| Start Schedule                                      | *1                | *3                              | 2.4                                           | 3.3.9.1                                        |
| Stop Schedule                                       | *1                | *3                              | 2.4                                           | 3.3.9.2                                        |
| Add Schedule Entry                                  | *1                | *3                              | 2.4                                           | 3.3.9.3                                        |
| Add Holiday                                         | *1                | *3                              | 2.4                                           | 3.3.9.4                                        |
| Select and Delete Schedule Entries                  | *1                | *3                              | 2.4                                           | 3.3.9.5                                        |
| Delete all                                          | *1                | *3                              | 2.4                                           | 3.3.9.6                                        |
| List Schedule Entries                               | *1                | *3                              | 2.4                                           | 3.3.9.7                                        |
| Show Status of Schedule Entries                     | *1                | *3                              | 2.4                                           | 3.3.9.8                                        |
| <b>Hardware Operation Setting Function</b>          |                   |                                 |                                               |                                                |
| RCI-related Setting                                 |                   |                                 |                                               |                                                |
| Display Current RCI Configuration                   | *1                | *3                              | 2.5.2                                         | 3.3.10.1                                       |
| Confirming the RCI-connected Units                  | *1                | *3                              | 2.5.2                                         | 3.3.10.2                                       |
| Reconfiguring the RCI Network (RCI Device Addition) | *1                | *3                              | 2.5.2                                         | 3.3.10.3                                       |
| Initial RCI Network Setup                           | *1                | *3                              | 2.5.2                                         | 3.3.10.4                                       |
| Setting the External Equipment Wait Time            | *1                | *3                              | 2.5.2                                         | 3.3.10.5                                       |
| RCI Device Replacement                              | *1                | *3                              | 2.5.2                                         | 3.3.10.6                                       |
| System-Specific Administration                      |                   |                                 |                                               |                                                |
| Warm-up Time Administration                         | *1                | *3                              | 2.5.3                                         | 3.3.12.1                                       |
| Extended Interleave Facility Set up                 | *1                | *3                              | 2.5.3                                         | 3.3.12.2                                       |
| UPS Administration                                  |                   |                                 |                                               |                                                |
| Setting waiting time for shutdown at power failure  | *1                | *1                              | 2.5.3                                         | 3.3.11.1                                       |
| Option Menu                                         |                   |                                 |                                               |                                                |
| Setting Up and Testing the AP-Net                   | *1                | *1                              | 2.5.4                                         | 3.3.13                                         |
| <b>Firmware Management Function</b>                 |                   |                                 |                                               |                                                |
| Option Menu                                         |                   |                                 |                                               |                                                |
| Hardware Control Program (HCP) Administration       | *1                | *3                              | 2.6                                           | 3.3.14.2                                       |
| Disk Drive Firmware Administration                  | *1                | *1                              | 2.6                                           | 3.3.14.3                                       |
| <b>Maintenance Program Startup Function</b>         |                   |                                 |                                               |                                                |
| FJVTS Diagnostic Program                            | *1                | *1                              | 2.7                                           | 3.3.15                                         |
| Remote Setup                                        | *1                | *1                              | 2.7                                           | 3.3.16                                         |
| <b>Other Functions</b>                              |                   |                                 |                                               |                                                |
| FST file Transfer                                   | *1                | N                               | 2.8                                           | 3.3.17                                         |
| Version Information                                 | *1                | *1                              | 2.8                                           | 3.3.18                                         |

### 3.3.3 When to Make Settings

Machine Administration supports three types of settings. The first type of settings are made when the main unit is installed. The second type of settings are made when the main unit is in operation. The third type of settings are made as required.

The tables below show settings to be made and the persons in charge responsible for making these settings.

The meanings of symbols in the "Person in charge" column are as follows.

Y: The customer engineer or system administrator makes the appropriate setting.

-: Other persons in charge make the appropriate setting.

| When to make the setting                     | Contents of the setting                            | Reference destination                                       | Person in charge  |                      |
|----------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|-------------------|----------------------|
|                                              |                                                    |                                                             | Customer engineer | System administrator |
| At installation of the main unit             |                                                    |                                                             |                   |                      |
|                                              | Monitoring battery life (*1)                       | 3.3.6.1 Monitoring battery life                             | Y                 | -                    |
|                                              | Setting Monitoring Notification Information        | 3.3.6.4 Setting Monitoring Notification Information         | -                 | Y                    |
|                                              | Add Schedule Entry                                 | 3.3.9.3 Add Schedule Entry                                  | -                 | Y                    |
|                                              | Add Holiday                                        | 3.3.9.4 Add Holiday                                         | -                 | Y                    |
|                                              | Warm-up Time Administration                        | 3.3.12.2 Warm-up Time Administration                        | -                 | Y                    |
|                                              | Setting the External Equipment Wait Time           | 3.3.10.5 Setting the External Equipment Wait Time           | -                 | Y                    |
|                                              | Setting waiting time for shutdown at power failure | 3.3.11.1 Setting waiting time for shutdown at power failure | -                 | Y                    |
|                                              | Remote Customer Support System (REMCS) Setup Menu  | 3.3.15 Remote Customer Support System (REMCS) Setup Menu    | -                 | Y                    |
| When the main unit is in operation           |                                                    |                                                             |                   |                      |
| When an error occurs/when a part is replaced | Disk Monitoring                                    | 3.3.6.2 Disk Monitoring                                     | -                 | Y                    |
| When an error is occurred                    | Tape Unit Monitoring                               | 3.3.6.3 Tape Unit Monitoring                                | -                 | Y                    |
| As required                                  | Add Schedule Entry                                 | 3.3.9.3 Add Schedule Entry                                  | -                 | Y                    |
|                                              | Add Holiday                                        | 3.3.9.4 Add Holiday                                         | -                 | Y                    |
|                                              | Reconfiguring The RCI Network                      | 3.3.10.3 Reconfiguring The RCI Network                      | -                 | Y                    |
|                                              | Initial RCI Network Setup                          | 3.3.10.4 Initial RCI Network Setup                          | -                 | Y                    |
|                                              | Setting Up and Testing the AP-Net                  | 3.3.12 Setting Up and Testing the AP-Net                    | -                 | Y                    |
|                                              | HCP File Operation                                 | 3.3.13.1 HCP File Operation                                 | -                 | Y                    |

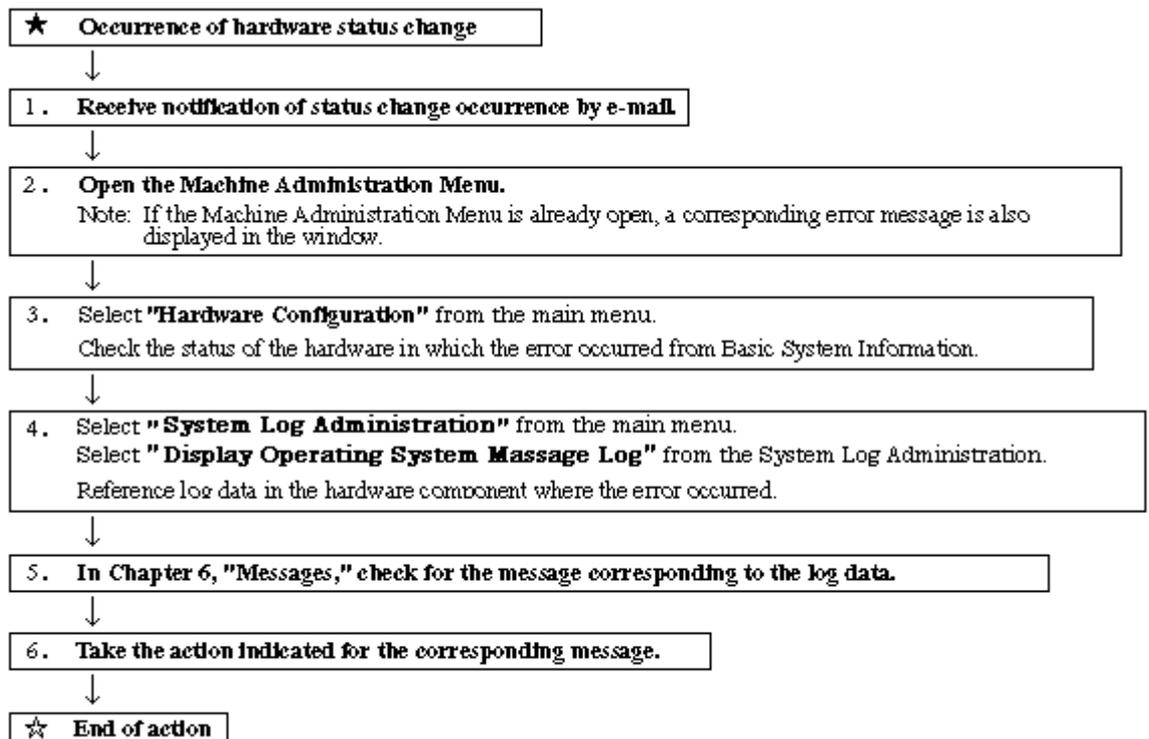
\*1 Make this setting not only when installing the main unit but also when performing preventive swapping.

### 3.3.4 Example of Action Taken for Status Changes

When the e-mail notification setting is set to "notification" beforehand, Machine Administration sends out an e-mail notification whenever a change in the status occurs. Machine Administration also displays an error message in the console and GUI menu.

For information about how to set the e-mail notification function, see Section 3.3.6.4, "Setting Monitoring Notification Information."

The following shows an example of the actions taken in response to changes of the hardware status.



### 3.3.5 Hardware Configuration

This section describes how to operate the hardware configuration menus.

#### Displaying the Hardware Configuration Displays menu

##### **CUI** Operation

- From the CUI menu, select [Hardware Configuration Displays].  
The Hardware Configuration Displays menu opens.

```

Hardware Configuration Displays

  1. Display Basic System Information
  2. Display Detailed Hardware and Partition Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select(1-2,b,t,h):
  
```

#### Displaying the basic system information

The following describes how to operate the Basic System Information Display:

##### **CUI** Operation

- From the Hardware Configuration Displays menu, select [Display Basic System Information].

The basic system information appears.

<Example>

```

Basic System Information
PRIMEPOWER900 ; Serial No:99999
SB[4units]
  CPU(1080MHz)[3units]
  CPU(1350MHz)[1unit]
  CPU-DDC[8units]
  DIMM[16units]: 16384 MB ; 1024 MB DIMM[16units]
  SB-DDC[20units]
SCFA[2units]
  SCFA-DDC[8units]
PCI_DISKBOX[1unit]

```

<Explanation of the display>

The status of the following hardware components is displayed: CPU, memory, system board, adapter, devices, panel board, and RCI unit. If a hardware fault is detected, a symbol indicating the status appears for the corresponding hardware.



See

For information about the status symbols, see Section 2.1.1, "Hardware configuration display function."



Note

- For the PRIMEPOWER series and GP7000F model 200R/400A/400R, the following information appears:  
x in "0x-" coded before the hardware name indicates the number of the motherboard.
- A disk managed by SynfinityDISK or PRIMECLUSTER GDS is displayed as "sfdisk" after sdn or hddvn.
- A device detected as faulty at main unit initialization and which is degraded is displayed in "Failed Units."

### Displaying detailed basic system information (partition information)

The following describes how to operate Partition and I/O Information (partition information):

#### **CUI** Operation

1. From the Hardware Configuration Displays menu, select [Detailed Hardware and Partition Information].

The Display menu opens.

```
Display Detailed Hardware and Partition Information

1. Display Partition and I/O Information
2. Display Hardware-Specific Information

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-2,b,t):
```

- From Display menu, select [Display Partition and I/O Information].  
The detailed basic system information appears.

<Example>

```
Partition and I/O Information

[PRIMEPOWER900 4-slot 4x SPARC64 V ]
SB Count      : 4
SB List       : 00-0,00-1,00-2,00-3
DTU Count     : 0
DTU List      : none
Host ID       : 80f30b80
Host Name     : m2e-em5-p0
CPU Count     : 4
Memory Size   : 16384 MB
Extended Interleave : Disable

[I/O Device Information:/Cabinet#0/SB#00/sd0]
Status        : Normal
Vendor        : FUJITSU
Product       : MAN3367MC
Serial        : UFF4P2600ACS
[I/O Device Information:/Rack#0/PCI_DISKBOX#00/sd436]
Status        : Normal
Vendor        : FUJITSU
Product       : MAG3091LC
```

<Explanation of the display>

Detailed status information (partition information) of the following hardware components appears:  
CPU, memory, system board, adapter, devices, panel board, and RCI unit.

### Displaying detailed basic system information (hardware information)

The following describes how to operate Partition and I/O Information (hardware information):

#### **CUI** Operation

- From the Hardware Configuration Displays menu, select [Display Detailed Hardware and Partition Information].  
The Display Detailed Hardware and Partition Information menu opens.

```

Display Detailed Hardware and Partition Information

  1. Display Partition and I/O Information
  2. Display Hardware-Specific Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select(1-2,b,t):

```

- From the Display Detailed Hardware and Partition Information menu, select [Display Hardware-Specific Information].

The Display Hardware-Specific Information menu opens.

```

Display Hardware-Specific Information

  1. System Board-Specific Information
  2. SCFA-Specific Information
  3. PCI_DISKBOX-Specific Information
  4. FEP Information
  5. FANTRAY Information
  6. SCF Information
  7. RCI Information
  8. Battery Information
  9. Display Detailed Hardware and Partition Information
 10. DISK Cabinet Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-10,q,b,t,h):

```



#### Note

The menu items to be displayed depend on the main unit model.

Moreover, there are cases when some of the displayed menu items may not be available for use.



#### See

See Section 3.3.2, "Main Unit Models and Available Menus."

- From the Display Hardware-Specific Information menu, select the hardware information to be displayed.

The selected hardware information appears.

<Example>

```
System Board-Specific Information
  1 SB#00-0
  2 SB#00-1
  3 SB#00-2
  4 SB#00-3
```

<Explanation of the display>

The detailed information on the hardware components selected from the Display Hardware-Specific Information menu opens.

### 3.3.6 Hardware Monitoring Information

This section describes how to operate the hardware monitoring information menus.

See Section 3.3.2, "Main Unit Models and Available Menus."

#### Displaying the Hardware Monitoring Information menu

##### **CUI** Operation

1. From the CUI menu, select [Hardware Monitoring Information].  
The Hardware Monitoring Information menu opens.

```
Hardware Monitoring Information

  1. Battery Life Monitoring
  2. Setting Monitoring Notification Information
  3. Saving/Restoring Hardware Monitoring Information
  4. Management of Hardware Error Event
  5. Displaying and Setting Memory Monitoring Information
  6. Displaying and Setting CPU Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-6,b,t):
```



Note

The menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



See

See Section 3.3.2, "Main Unit Models and Available Menus."

### 3.3.6.1 Monitoring battery life

This section describes how to operate the Battery Life Monitoring function.



Note

For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

#### Displaying the Battery Life Monitoring menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Battery Life Monitoring].

The Battery Life Monitoring menu opens.

```
Battery Life Monitoring

1. Adding Battery Life Information
2. Displaying and Setting Battery Life Information
3. Deleting Battery Life Information
4. Setting Battery Life Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-4,q,b,t):
```

#### Adding Battery Life Information

The following describes how to operate the Adding Battery Life Information function:

##### **CUI** Operation

1. From the Battery Life Information menu, select [Adding Battery Life Information].

The Adding Battery Life Information menu opens.

2. Specify the following information in the menu:

- Battery

Enter the battery identifier.

For the UPS battery: UPS-B#n (n is the battery identification number.)

For the disk array device battery: DARY-B#n (n is the battery identification number.)

- Status

Select a battery status from the following:

Normal: Normal status

Prepare: The expiration date of the battery life is approaching. A new battery needs to be prepared for future replacement.

Replace: The expiration date of the battery life is approaching. The battery needs to be replaced.

Expire: The expiration date of the battery life has passed. The battery needs to be replaced immediately.

- Life

Enter the expiration date of the battery life.

- Prepare Notification  
Selects whether a notification is issued to prompt for preparation of the replacement part when the expiration date of the battery life is approaching.  
Valid: Notification.  
Invalid: No notification.
- Replace Notification  
Selects whether a notification is to be issued to prompt for replacement of the part when the expiration date of the battery life is approaching.  
Valid: Notification  
Invalid: No notification
- Expire Notification  
Selects whether a notification is to be issued to prompt for replacement of the part when the expiration date of the battery life is approaching.  
Valid: Notification (every day)  
Invalid: No notification
- Battery Identification Number  
Enter the battery identification number as a number in the range of 0 to 999.  
The battery identification number is used to manage battery life.
- Life  
Enter the expiration date of battery life indicated on the label attached to the battery.  
However, for the F6403XX disk array device, enter a date two years after the manufacturing date recorded on the label attached to the battery.
- Setting Valid/Invalid Notification  
Select for each battery whether a notification is to be issued. The default is "Valid."  
Valid: Notification  
Invalid: No notification  
Make this selection for each of the following notifications:  
Prepare Notification: Used to prompt for the preparation of a new battery when the expiration date of battery life is approaching.  
Replace Notification: Used to prompt for battery replacement when the expiration date of battery life is approaching.  
Expire Notification: Used to prompt for battery replacement when the expiration date of battery life has passed. (Every day)

### Displaying Battery Life Information

The following describes how to operate the Displaying Battery Life Information function:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Displaying and Setting Battery Life Information].  
The Displaying and Setting Battery Life Information menu opens.
2. Select [Displaying Battery Life Information].  
The battery life information appears.  
This information includes:
  - Battery  
The identifier of the battery  
The battery identifier is displayed in the following formats:

For the UPS battery: UPS-B#n (n is the battery identification number.)

For the disk array device battery: DARY-B#n (n is the battery identification number.)

- Status
  - The battery status
  - Normal: Normal status
  - Error: A battery error was detected. The battery needs to be replaced.
  - Prepare: The expiration date of the battery life is approaching. A new battery for replacement needs to be prepared.
  - Replace: The expiration date of the battery life is approaching. The battery needs to be replaced.
  - Expire: The expiration date of the battery life has passed. The battery needs to be replaced immediately.
  - None: Not mounted.
- Life
  - Expiration date of the battery life
- Prepare Notification
  - Used to prompt for the preparation of a new battery for replacement when the expiration date of the battery life is approaching.
  - Valid: Notification
  - Invalid: No notification
- Replace Notification
  - Used to prompt for battery replacement when the expiration date of battery life is approaching.
  - Valid: Notification
  - Invalid: No notification
- Expire Notification
  - Used to prompt for battery replacement when the expiration date of the battery life has passed.
  - Valid: Notification (every day).
  - Invalid: No notification

### Setting Battery Life Information

The following describes how to perform the Setting Battery Life Information operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Displaying and Setting Battery Life Information].  
The Displaying and Setting Battery Life Information menu opens.
2. Select [Setting Battery Life Information].  
The Setting Battery Life Information menu opens.
3. Specify the following information in the menu:
  - Life
    - Enter the expiration date of the battery life recorded on the label attached to the battery.  
However, for the F6403XX disk array device, enter a date two years after the manufacturing date recorded on the label attached to the battery.
  - Setting Valid/Invalid Notification
    - Specify whether a notification is to be issued, for each battery. The default is "Valid."

Valid: Notification

Invalid: No notification

Make this setting for each of the following notifications:

Prepare Notification: Used to prompt for the preparation of a new battery for replacement when the expiration date the battery life is approaching.

Replace Notification: Used to prompt for battery replacement when the expiration date the battery life is approaching.

Expire Notification: Used to prompt for battery replacement when the expiration month and year of the battery life has passed. (Every day)

### Deleting Battery Life Information

The following describes how to perform the Deleting Battery Life Information operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Deleting Battery Life Information].  
The battery life information list appears.
2. Select the battery to be deleted.
3. Perform operations in accordance with the menu.

### Setting Battery Life Notification

The following describes how to perform the Setting Battery Life Notification operation:

#### **CUI** Operation

1. From the Battery Life Monitoring menu, select [Setting Battery Life Notification].  
The Setting Battery Notification menu opens.
2. Specify the following information in the menu:
  - Setting Time Period of Notification  
Specify the time period during which an automatic notification is to be issued.  
Time period of prepare notification:  
During this time period, a notification prompting for the preparation of a new battery for replacement is issued because the expiration date of the battery life is approaching.  
A time period of 24 to 2 months before the expiration date of the battery life can be specified. The default is "6 months prior to the expiration of battery life."  
Time period of replace notification:  
During this time period, a notification prompting for part replacement is issued when the expiration date of the battery life is approaching. A time period of 23 months to 1 month prior to the expiration date of the battery life can be specified. The default is "4 months prior to the expiration of the product life."
  - Life Notification Destination  
Specify the destination to which an automatic notification is to be issued by Battery Life Monitoring.  
Life Notification Destination: Select whether the notification is to be issued, for each notification destination, depending on whether a notification by Battery Life Monitoring is required.
    - Output to the console
    - Sending mail to the system administrator

- Sending mail to the CE

Select whether a notification is to be issued.

Valid: Notification

Invalid: No notification



Note

Set the mail address in the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.3.6.2 Disk Monitoring

Disk Monitoring is not a Machine Administration Menu item.

The Disk Monitoring function is automatically enabled at main unit startup.



Note

The Disk Monitoring function automatically monitors all connected devices.

For this reason, an application or driver error may occur if an operational conflict with other applications occurs or the disk array device is used.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSVmadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.



See

See Section 4.12, "**nocheckdev (1M)**."

### 3.3.6.3 Tape Unit Monitoring

Tape unit monitoring is not a Machine Administration Menu item.

The tape unit monitoring function is automatically enabled at main unit startup.



Note

The monitoring function automatically operates for all connected devices. For this reason, an application or driver error to the effect that the device is indicated as busy may occur if a device-open operation from another application conflicts with this function.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSVmadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.



See

See Section 4.12, "**nocheckdev (1M)**."

### 3.3.6.4 Setting Monitoring Notification Information

This section describes how to perform the Setting Monitoring Notification Information operation.



Note

For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

#### Displaying the Setting Monitoring Notification Information menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Setting Monitoring Notification Information].

The Setting Monitoring Notification Information menu opens.

```
Setting Monitoring Notification Information

1. Output to the console :
2. Sending mail to the system administrator:
   Mail address of the system administrator:
   Memo:system-administrator
3. Sending mail to the CE :
   Mail address of the CE :
   Memo:CE

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-3,q,b,t,h):
```

#### Output to the Console

The following describes how to operate the Output to the Console function:

##### **CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Output to the console].

The Output to the Console menu opens.

2. Enter the following information in the menu:

- Notification Item

In the CUI menu, no notification item can be selected. Specify whether a notification is to be issued for all items.

To change each notification item individually, use the notification settings in the corresponding menus of the hardware monitoring information.

In the GUI menu, the notification setting in the corresponding menu of the hardware monitoring information indicates whether the console is set as the notification destination.

To change a notification item, select it and set it to "Valid" or "Invalid".

#### Sending Mail to the System Administrator

The following describes how to operate the Sending Mail to the System Administrator function:

**CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Sending mail to the system administrator].  
The Sending Mail to the System Administrator menu opens.
2. Enter the following information in the menu:
  - Mail address  
Enter the mail address of the system administrator.  
To send a notification to multiple system administrators, separate their mail addresses with a comma ",".
  - Memo  
Enter supplementary information. Use this information when sending memos to the system administrator.  
A colon ":" cannot be entered.
  - Notification Item  
In the CUI menu, no notification item can be selected. Specify whether a notification is to be issued for all items.  
To change each notification item individually, use the notification settings in the corresponding menus of the hardware monitoring information.  
In the GUI menu, the notification setting in each menu of the hardware monitoring information indicates whether the system administrator is set as the notification destination.  
To change a notification item, select it and set it to "Valid " or "Invalid".

**Sending Mail to the CE**

The following describes how to operate the Sending Mail to the CE function:

**CUI** Operation

1. From the Setting Monitoring Notification Information menu, select [Sending mail to the CE].  
The Sending Mail to the CE menu opens.
2. Enter the following information in the menu:
  - Mail address  
Enter the mail address of the CE.  
To send a notification to multiple CEs, separate their mail addresses with a comma ",".
  - Memo  
Enter supplementary information. Use this information when sending memos to the CE.  
A colon ":" cannot be entered.
  - Notification Item  
In the CUI menu, no notification item can be selected. Specify whether a notification is to be issued for all items.  
To change each notification item individually, use the notification settings in the corresponding menus of the hardware monitoring information.  
In the GUI menu, the notification setting in the corresponding menu of the hardware monitoring information indicates whether the CE is set as the notification destination.  
To change a notification item, select it and set it to "Valid" or "Invalid".

### 3.3.6.5 Saving/Restoring Hardware Monitoring Information

This section describes how to operate the Saving/Restoring Hardware Monitoring Information function.

#### Displaying the Saving/Restoring Hardware Monitoring Information menu

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Saving/Restoring Hardware Monitoring Information].

The Saving/Restoring Hardware Monitoring Information menu opens.

```
Saving/Restoring Hardware Monitoring Information

  1. Saving Hardware Monitoring Information
  2. Restoring Hardware Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

#### Saving Hardware Monitoring Information

The following describes how to operate the Saving Hardware Monitoring Information function:

##### **CUI** Operation

1. From the Saving/Restoring Hardware Monitoring Information menu, select [Saving Hardware Monitoring Information].
2. Select the log data to be saved.
3. Enter the name of the save destination directory with the full path.
4. Enter the file name (FJSVmadminfo.tar.Z) in the specified directory.



##### Information

If the information was saved in a file used for reinstalling the main unit, it needs to be copied to another main unit or storage medium.

#### Restoring Hardware Monitoring Information

The following describes how to operate the Restoring Hardware Monitoring Information function:

##### **CUI** Operation

1. From the Saving/Restoring Hardware Monitoring Information menu, select [Restoring Hardware Monitoring Information].
2. Enter the full path of the directory containing the original file to be restored.
3. FJSVmadminfo.tar.Z of the specified directory is restored.

### 3.3.6.6 Management of Hardware Error Event

This section describes how to operate the Management of Hardware Error Event function.

## Displaying the Current abnormalities menu

### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Management of Hardware Error Event].  
The Current abnormalities menu opens.

```

Current abnormalities

Filtering/Sorting conditions
1. Date
   From:
   To :
2. Time
   From:
   To :
3. Order: Present -> Past
d. Display

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-3,d,q,b,t,h):

```

## Retrieving hardware error events

Management of Hardware Error Event retrieves information indicating the part in the main unit where the error occurred and the error details.

### **CUI** Operation

1. Specify the following items according to the menu to retrieve hardware error information:
  - Specify the display start date and display end date in Date.  
Error information generated in the specified range appears.  
If From is omitted, error information is displayed starting from the oldest information.  
If To is omitted, error information is displayed up to the latest information.  
If both From and To are omitted, all of the error information is displayed.
  - Enter the display start time and display end time in Time.  
The error log in the specified time range appears.  
If From is omitted, the starting time is 00:00.  
If To is omitted, the ending time is 23:59.  
<Example>  
If 20:00 is specified in From and 08:00 is specified in To, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.  
If 0501 to 0831 is specified for Date and 1700 to 0900 is specified for Time, the information logged from 17:00 of a day to 09:00 of the next day appears in the range of May 1 to August 31.
  - Specify the display order.  
Select whether information is displayed in reverse chronological order or chronological order.  
The default is "Present -> Past."
2. Enter "d (display)".

Error information matching the search conditions appears.

The following information appears as error information:

- Date  
Displays a date (year, month, and day) and time when the error occurred in the part.
- Unit  
Displays the part name and identification number.

3. Enter the number of the detailed information from the error information list.

The detailed faulty part information appears.

The detailed faulty part information includes:

- Location  
Displays the location of the part in which the error occurred.
- Status  
Displays the part status.
- Date  
Displays the date and time when the error occurred in the part.
- Reason  
Displays the cause of the error that occurred in the part.

The following operations are also possible:

- Reset the status  
Resets the status of the faulty part.

### 3.3.6.7 Displaying and Setting Memory Monitoring Information

This section describes how to operate the Memory Monitoring function.

#### Displaying Memory Monitoring Information

The following describes how to operate the Displaying Memory Monitoring Information function:

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Displaying and Setting Memory Monitoring Information].

The memory monitoring information appears.

The memory monitoring information includes:

- Unit  
Unit name. (Example: /Cabinet#0/SB#00/DIMM#A00)
- Status  
Memory status  
Normal: Normal status  
Error: A memory error was detected. The part needs to be replaced immediately.  
Replace: A memory error was detected. Preventive replacement of the part is required.

#### Setting Memory Monitoring Information

The following describes how to perform the Setting Memory Monitoring Information operation:

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Displaying and Setting Memory Monitoring Information].

The Memory monitoring information list appears.

2. Select the Memory whose settings need to be made.
3. Enter the following information in the menu:
  - Resetting Monitoring Information
 Reset the monitoring information when the memory is replaced.

### 3.3.6.8 Displaying and Setting CPU Monitoring Information

This section describes how to operate the CPU Monitoring function.

#### Displaying CPU Monitoring Information

The following describes how to operate the Displaying CPU Monitoring Information function:

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Displaying and Setting CPU Monitoring Information].

The CPU monitoring information appears.

This information includes:

- Unit  
The CPU slot (example: /Cabinet#0/SB#00/CPU#0)
- Status  
The CPU status  
Normal: Normal status  
Error: A CPU error was detected. The part needs to be replaced immediately.  
Replace: A CPU error was detected. Preventive replacement of the part is required.

#### Setting CPU Monitoring Information

The following describes how to perform the Setting CPU Monitoring Information operation:

##### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Displaying and Setting CPU Monitoring Information].

The Setting CPU Monitoring Information list appears.

2. Select the CPU whose settings need to be made.
3. Enter the following information in the menu:
  - Resetting Monitoring Information
 Reset the monitoring information when the CPU was replaced.

### 3.3.7 Log Data

This section describes how to operate the various log data menus.

#### Displaying the Log Data menu

##### **CUI** Operation

1. From the CUI menu, select [System Log Administration].  
The System Log Administration menu opens.

```
System Log Administration

1. Display Hardware Error Log
2. Display Power Log
3. Display Report Log
4. Display Operating System Message Log
5. Disk Error Statistics Information
6. Save Log Data to a File
7. Collect System Information with fjsnap

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-7,b,t):
```



### Note

The menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



### See

See Section 3.3.2, "Main Unit Models and Available Menus."

### 3.3.7.1 Operating system message log

This section describes how to display the operating system message log.

#### **CUI** Operation

1. From the System Log Administration menu, select [Display Operating System Message Log].
2. Specify the following items and retrieve log data in accordance with the menu:

- Date Range

Displays the operating system message log data in the range of the specified date.

If Start Date is omitted, the starting day is January 1.

If End Date is omitted, the ending day is December 31.

If both Start Date and End Date are omitted, the log data in the range from the beginning to end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If October 1 is specified as Start Date and March 31 is specified as End Date, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to the end of the log file.

- Time Range

Displays the operating system message log data in the specified time range.

If Start Time is omitted, the starting time is 00:00.

If End Time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Start Time and 08:00 is specified as End Time, the information

logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.

If 0501 to 0831 is specified in Date Range and 1700 to 0900 is specified in Time Range, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Retrieval character string

Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any one of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are retrieved and displayed line by line or in units of multiple lines logged at the same time. The default is "in units of multiple lines."

- Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

### 3.3.7.2 Hardware error log

This section describes how to display the hardware error log.

#### **CUI** Operation

1. From the Log Data menu, select [Hardware Error Log].
2. Specify the following items and retrieve log data in accordance with the menu:

- Date Range

Displays the hardware error log data in the range of the specified date.

If Start Date is omitted, the oldest information in the log file is displayed.

If End Date is omitted, the latest information in the log file is displayed.

If both Start Date and End Date are omitted, the log data in the range from the beginning to end of the log file is displayed.

- Time Range

Displays the hardware error log data in the specified time range.

If Start Time is omitted, the starting time is 00:00.

If End Time is omitted, the ending time is 23:59:59.

<Example>

If 0501 to 0831 is specified in Date Range and 900 to 1700 in Time Range, the information

If 20:00 is specified as From and 08:00 is specified as To, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to end of the log file.

If 0501 to 0831 is specified in Date and 1700 to 0900 is specified in Time, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Unit selection

Selects hardware whose error log is to be displayed.

The default is "All units."

All units : All error logs

SB : SB error log

|         |                                                                 |
|---------|-----------------------------------------------------------------|
| CPU     | : CPU error log                                                 |
| MEMORY  | : Memory module error log                                       |
| PCI     | : Error log of the PCI slot and PCI card                        |
| FAN     | : Error log of the fan built in the main units                  |
| PSU     | : Error log of the power supply unit built in the main unit     |
| RCI     | : Error log of the equipment connected to the RCI network       |
| DISK    | : Error log of the disk built in the main unit                  |
| TAPE    | : Error log of DAT built in the main unit                       |
| UPS     | : Error log of the uninterruptible power supply                 |
| PANEL   | : Panel error log                                               |
| SCSI-BP | : SCSI-BP error log                                             |
| DDC     | : DDC error log                                                 |
| SDU     | : Error log of SDU file unit                                    |
| BATTERY | : Error log of the battery built in the UPS and disk array unit |
| OTHER   | : All error logs other than above                               |

– Display format

Displays the following information in the format of 2 lines per event:

|               |                                   |
|---------------|-----------------------------------|
| No.           | : Event number                    |
| Date          | : Log storage time                |
| Code          | : Error code                      |
| Unit          | : Replacement unit classification |
| Error details | : Details of an error             |



**Note**

If the clock setting of the operating system was changed by time resetting, the display order may differ from the event generation order.

### 3.3.7.3 Power log

This section describes how to display the power log.

#### **CUI** Operation

1. From the Log Data menu, select [Power log].
2. Specify the following items and retrieve log data in accordance with the menu:

– Date Range

Displays the power log data in the range of the specified date.

If Start Date is omitted, the oldest information in the log file is displayed.

If End Date is omitted, the latest information in the log file is displayed.

If both Start Date and End Date are omitted, the log data in the range from the beginning to the end of the log file is displayed.



**Note**

If the clock setting of the operating system was changed by time resetting, the display order may differ from the event generation order or some part of the data may not be displayed.

### 3.3.7.4 Report log

This section describes how to display the report log.

#### **CUI** Operation

1. From the System Log Administration menu, select [Display Report Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Date Range
 

Displays the report log data in the range of the specified date.

If Start Date is omitted, the oldest information in the log file is displayed.

If End Date is omitted, the latest information in the log file is displayed.

If both Start Date and End Date are omitted, the log in the range from the beginning to end of the log file is displayed.
  - Time Range
 

Indicates the report log in the specified time range.

If Start Time is omitted, the starting time is 00:00:00.

If End Time is omitted, the ending time is 23:59:59.

<Example>

If 0501 to 0831 is specified in Date Range and 9000 to 1700 is specified in Time Range, the information logged from 09:00 to 17:00 of a day is displayed in the range from May 1 to August 31.

### 3.3.7.5 Disk Error Statistics Information

This section describes how to display disk error statistics information.

#### **CUI** Operation

1. From the log data menu, select [disk error statistics information].
2. Use either of the following methods to specify in the menu the disk for which disk error statistics information is to be displayed:
  - Entering the name of the disk
 

Enter the name of the disk as displayed in the various messages or menu screens. The following types of names can be used:

    - sd driver instance name
    - logical device name (logical device name registered in /dev/rdisk)
    - physical device name (Unit name as registered in a message column)
  - Selecting the disk name from a list
 

Enter "L". A list displaying the names of all disks for which information can be displayed appears; select the target disk from this list.

### 3.3.7.6 Saving the log data

Log data is saved as follows:

Save Log Data to a File saves log data of various types. The following information can be saved:

- All
- Message Log
- Machine Administration Monitoring Log
- Hardware Event Log
- Display Hardware Error Log

- Machine Administration Event Log
- Machine Administration Error Log
- Power Log



### Information

The CE uses the file in which log data was saved, when hardware becomes faulty.

1. From the Log Data menu, select [Saving the Log Data].

## Displaying the Save Log Data to a File menu

### **CUI** Operation

1. From the Log Data menu, select [Save Log Data to a File].

The Save Log Data to a File menu opens.

```
Save Log Data to a File

1. All
2. Message Log
3. Machine Administration Monitoring Log
4. Hardware Event Log
5. Display Hardware Error Log
6. Machine Administration Event Log
7. Machine Administration Error Log
8. Power Log
Select the log to be saved.
To specify multiple logs to be saved, separate with a comma(,).

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Do you specify information to be saved? (1-8,b,t,h):
```



### Note

The menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



### See

See Section 3.3.2, "Main Unit Models and Available Menus."

## Save Log Data to a File

### **CUI** Operation

1. From the Save Log Data to a File menu, select the log data to be saved.

2. Enter the following information in the menu:
  - Save destination  
Specify the name of the save destination file with the full path.  
The file is created in tar format and is compressed with the “compress” command.

### 3.3.7.7 Collecting system information

This section describes how to operate the Collecting System Information function.

If a main unit error occurs, Collecting System Information outputs the following information to a file:

- Information relating to the hardware and software configurations, environment setting, logs, and operation statuses
- Information such as command execution results



Information

The CE uses the file in which system information was collected.

### Displaying the Collecting System Information menu

#### **CUI** Operation

1. From the System Log Administration menu, select [Collect System Information with fjsnap].

The Collecting System Information menu opens.

```
Collecting System Information
System Information Menu

1. all
2. basic software
3. high availability
4. lp
5. network
6. storage array
If you want to select more than one, please separate the number by comma (,).

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,h,t):
```

### Collecting System Information

#### **CUI** Operation

1. From the Collecting System Information menu, select the system information to be collected.
2. Enter the following information in the menu:
  - Collection Destination  
Specify the name to the collection destination file with the full path.  
The file is created in tar format and is compressed with the “compress” command.

### 3.3.8 Hot Swapping Guide

This section describes how to operate the Hot Swapping Guide menus.



Note

The CE performs the hardware maintenance.

#### Displaying the Maintenance/Swapping Administration menu

##### **CUI** Operation

1. From the CUI menu, select [Maintenance/Swapping Administration].

The Maintenance/Swapping Administration menu opens.

```
Maintenance/Swapping Administration

1. The Faulty Hard Disk Drive Replacement (Hot Swap)
2. Preventive Maintenance of the Hard Disk Drive (Hot Swap)
3. Include the Hard Disk Drive after the Cold Maintenance
4. Power Supply Unit of RCI Device
5. Fan Unit of RCI Device

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-3,b,t):
```



Note

If Machine Administration ends abnormally during disk hot swapping, perform the hot swapping operation again from the beginning.

#### 3.3.8.1 The Faulty Hard Disk Drive Replacement (Hot Swap)/Preventive Maintenance of the Hard Disk Drive (Hot Swap)/Include the Hard Disk Drive after the Cold Maintenance

See Appendix B, "Disk Drive Replacement," for information on how to use the menu for displaying the disk drive swapping guidance information.



Note

The CE replaces the hard disk.

#### 3.3.8.2 Power Supply Unit of RCI Device

This section describes how to display the guidance information on hot-swapping the power supply unit of the RCI device.



Note

The CE replaces the power supply unit of the RCI device.

### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Power Supply Unit of RCI Device].
2. From the RCI Device list Power Supply Unit list, select the power supply unit to be replaced.  
The list shows the device names and statuses.
3. Replace the power supply unit in accordance with the guidance information.

### 3.3.8.3 Fan Unit of RCI Device

This section describes how to display the guidance information on hot-swapping the fan unit of the RCI device.



Note

The CE replaces the fan unit of the RCI device.

### **CUI** Operation

1. From the Hot Swapping Guide menu, select [Fan Unit of RCI Device].
2. From the RCI Device Fan Unit list, select the fan unit to be replaced.  
This list shows the device names and statuses.
3. Replace the fan unit in accordance with the guidance information.

## 3.3.9 Auto Power Control System (APCS) Administration

This section describes how to operate the Auto Power Control System (APCS) Administration menus.



Note

For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

### Displaying APCS Setup Menu

#### **CUI** Operation

1. From the CUI menu, select [Auto Power Control System (APCS) Administration].  
The APCS Setup menu opens.

```
APCS Setup Menu

1. Start Schedule
2. Stop Schedule
3. Add Schedule Entry
4. Add Holiday
5. Select and Delete Schedule Entries
6. Delete all
7. List Schedule Entries
8. Show Status of Schedule Entries

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-8,q,b,t,h):
```



Information

Use the `apcsset` command to set up forcible power-off mode and power recovery mode.



See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

### 3.3.9.1 Start Schedule

This section describes how to perform the Start Schedule operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.3.9.2 Stop Schedule

This section describes how to perform the Stop Schedule operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.

### 3.3.9.3 Add Schedule Entry

This section describes how to perform the Add Schedule Entry operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.
2. From the APCS Setup Menu, select [Add Schedule Entry].
3. Specify the following information in the menu:
  - Power On Time

- Power Off Time
  - Specific Day
  - Specific days in this month
  - From a specific day through another specific day
  - Specific day of the week
4. From APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



#### Information

After adding schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time.

To check all schedules, use the apcsset command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.3.9.4 Add Holiday

This section describes how to execute the Add Holiday operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation starts.
2. From the APCS Setup Menu, select [Add Holiday].
3. Specify the following information according to the menu:
  - Holiday schedule (days when operation is not performed)
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



#### Information

After adding holiday schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time.

To check all schedules, use the apcsset command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.3.9.5 Select and Delete Schedule Entries

This section describes how to perform the Select and Delete Schedule Entries operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.
2. From the APCS Setup Menu, select [Select and Delete Schedule Entries].  
The schedule list appears.
3. Perform operations according to the menu.  
The selected schedule or holiday schedule is deleted.
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



#### Information

After deleting schedule or holiday schedule entries, verify that the results were correctly reflected. Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the `apcsset` command (-L option).  
`#!/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>`



#### See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

5. To continue operation according to the new schedule after completing selection and deletion, select [Start Schedule] from the APCS Setup Menu.  
Schedule operation starts.

### 3.3.9.6 Delete all

This section describes how to perform the Delete All operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [Stop Schedule].  
Schedule operation stops.
2. From the APCS Setup Menu, select [Delete all].  
A message appears.
3. Perform operations according to the menu.  
All schedules and holiday schedules are deleted.
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.

**Information**

After deleting all schedule and holiday schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the apcsset command (-L option).

```
#/opt/FJSpvcs/sbin/apcsset -L 30 -f <return>
```

**See**

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].  
Schedule operation starts.

### 3.3.9.7 List Schedule Entries

This section describes how to perform the List Schedule Entries operation.

#### **CUI** Operation

1. From the APCS Setup Menu, select [List Schedule Entries].

The current schedule settings are displayed.

These settings include:

- STATUS  
Operation status of Auto Power Control System (APCS) Administration
- daily  
Schedule that is repeated day by day
- weekly  
Schedule that is repeated week by week
- monthly  
Schedule that is repeated month by month
- holiday  
Holiday schedule
- special  
Specific-day's schedule
- forcedown  
Indicates the immediate start of shutdown processing when the shutdown time has arrived.
- norndown  
Displays a warning message on the display indicating that shutdown processing will start after three minutes.  
Power-off processing can be stopped by executing the apcscancel command during this three-minute period.
- exception  
Schedule not related to node stop

### 3.3.9.8 Show Status of Schedule Entries

This section describes how to perform the Show Status of Schedule Entries operation.

#### **CUI** Operation

1. From the APSC Setup Menu, select [Show Status of Schedule Entries].

The schedule status is displayed.

The schedule status information includes:

- STATUS  
Operation status of Auto Power Control System (APCS) Administration
- PRESENT  
Current date and time
- POWER-OFF  
First power-off time
- POWER-ON  
First power-on time
- OVER  
Last schedule time
- SCHEDULE OF 7 days NEXT  
Schedule for one week



#### Information

Show Status of Schedule Entries displays schedules for seven days after the current day and time.

To check all schedules, use the apcsset command (-L option).

```
#/opt/FJSpvaps/sbin/apcsset -L 30 -f <return>
```



#### See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

### 3.3.10 RCI-related Settings

This section describes how to operate the RCI-related Settings menus.



#### Note

For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

### Displaying the Remote Cabinet Interface (RCI) Administration menu

#### **CUI** Operation

1. From the CUI menu, select [Remote Cabinet Interface (RCI) Administration].

The Remote Cabinet Interface (RCI) Administration menu opens.

```

RCI-related Settings

1. Display Current RCI Configuration
2. Confirming the RCI-connected Units
3. Reconfiguring the RCI Network(RCI Device Addition)
4. Initial RCI Network Setup
5. Setting the External Equipment Wait time
6. RCI Device Replacement

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select(1-6,b,t):

```

### 3.3.10.1 Display Current RCI Configuration

This section describes how to perform the Display Current RCI Configuration operation.

#### **CUI** Operation

1. From the Remote Cabinet Interface (RCI) Administration menu, select [Display Current RCI Configuration].

The RCI statuses of the local host are explained below.

- RCI address

RCI address of the main unit

- Status

RCI status

Active : RCI active status  
 Mainte : RCI maintenance mode in effect  
 Configuring : RCI network construction in progress  
 ConfigError (reason) : RCI network construction error  
 reason indicates the reason for the error.

| reason                                   | Reason for error                                        |
|------------------------------------------|---------------------------------------------------------|
| "Self Host Address Conflict"             | Local address duplication error                         |
| "Host Address Contradict"                | Inconsistency between the host count and host addresses |
| "RCI Address Contradict"                 | RCI address inconsistency                               |
| "Can't assign new Address"               | New registration impossible                             |
| "Error in Configuring"                   | Error during installation                               |
| "Self configuration RCI AddressConflict" | Error in self-configuration: RCI address duplicate      |
| "RCI Hardware Error"                     | RCI hardware error                                      |

The following explains the list of the devices connected to RCI:

- address

RCI address

- pwr

Power status of the RCI device

ON : Power-on status  
 OFF : Power-off status

- alm

- Alarm generation status
  - ALM : Alarm generation
  - : No alarm
- I/F
  - I/F status of the RCI device
    - ACT : Active
    - INACT : Inactive
- sys-phase
  - OS status
    - power-off : Power-off status
    - panic : Panic status
    - shdwn-start : Shutdown in progress
    - shdwn-cmplt : Shutdown completed
    - dump-cmplt : Dump completed
    - initializing : Initial diagnosis in progress
    - booting : Booting in progress
    - running : In operation
- ctgry
  - RCI device category
    - Host : Main unit
    - Rcic : External power control device
    - Disk : Disk unit
    - Linsw : Line switching unit
    - Other : Other devices
- dev-cls
  - RCI device class. Displayed as a 4-digit hexadecimal number.
- sub-cls
  - Subclass of the RCI device. Displayed as a 2-digit hexadecimal number.

### 3.3.10.2 Confirming the RCI-connected Units

This section describes how to perform the Confirming the RCI-connected Units operation.

#### **CUI** Operation

1. From the RCI-related Settings menu, select [Confirming the RCI-connected Units].
2. From Display Current RCI Configuration, select the device whose connection is to be checked.  
The check lamp of the specified device blinks.
3. Exit [Confirming the RCI-connected Units].  
The check lamp of the specified device goes off.

### 3.3.10.3 Reconfiguring the RCI Network (RCI Device Addition)

This section describes how to perform the Reconfiguring the RCI Network operation.

#### **CUI** Operation

From the RCI-related Settings menu, select [Reconfigure the RCI Network (RCI Device Addition)].

The RCI network is reconfigured.



#### Information

The time required for the setting to be completed depends on the number of cabinets connected to the network.

### 3.3.10.4 Initial RCI Network Setup

This section describes how to perform the Initial RCI Network Setup operation.

#### **CUI** Operation

1. From the RCI-related Settings menu, select [Initial RCI Network Setup].  
Initial RCI Network Setup is performed.



#### Information

The time required for the setting to be completed depends on the number of cabinets connected to the network.

### 3.3.10.5 Setting the External Equipment Wait Time

This section describes how to perform the Setting the External Equipment Wait Time operation.

#### **CUI** Operation

1. From the RCI-related Settings menu, select [Setting the External Equipment Wait Time].  
The RCI address list for the external power control device appears.
2. Select the device to which the external equipment is connected.
3. Specify the external equipment wait time.  
Specify this item in the range of 0 to 255 (minutes).

### 3.3.10.6 RCI Device Replacement

This section explains the setting procedure for RCI device replacement.

#### **CUI** Operation

1. From the RCI-related Settings menu, select [RCI Device Replacement].  
A list of RCI devices that can be replaced appears.
2. Select the device to be replaced.
3. Confirm that the LED of the selected device blinks, and perform the replacement.
4. After the replacement, a list of RCI devices appears.

## 3.3.11 UPS Administration

This section describes how to operate the UPS Administration menus.

### Displaying the UPS Administration menu

#### **CUI** Operation

1. From the CUI menu, select [UPS Administration].

The UPS Administration menu opens.

```
UPS Administration

  1. Set shutdown delay at power failure

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1,b,t,h):
```

### 3.3.11.1 Set shutdown delay at power failure

This section describes how to perform the Set shutdown delay at power failure operation.

#### **CUI** Operation

1. From the UPS Administration menu, select [Set shutdown delay at power failure].  
The current wait time appears.
2. Specify the waiting time for shutdown at power failure.  
Specify this value in the range of 0 to 9999 (seconds).  
The default is "10 seconds."

### 3.3.12 System-Specific Administration

This section describes how to operate the System-Specific Administration menus.

#### Displaying the System-Specific Administration menu

#### **CUI** Operation

1. From the CUI menu, select [System-Specific Administration].  
The System-Specific Administration menu opens.

```
System-Specific Administration

  1. Warm-up Time Administration
  2. Extended Facility Setup

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,b,t,h):
```

#### 3.3.12.1 Warm-up Time Administration



For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

This section describes how to perform Warm-up Time Administration.

When the warm-up time is specified, the main unit is powered on. After the specified warm-up time

elapses, OpenBoot PROM (OBP) of the main unit starts.

### **CUI** Operation

1. From the System-Specific Administration menu, select [Warm-up Time Administration].  
The warm-up time appears.
2. Specify the warm-up time.  
Specify this value in the range of 0 to 255 (minutes).  
The default is "0 minutes."

### 3.3.12.2 Setting Extended Interleave Mode



For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

This section describes how to perform the Setting Extended Interleave Mode operation.

### **CUI** Operation

1. From the System-Specific Administration menu, select [Extended Facility Setup].
2. From the Extended Facility Setup menu, select [Setting Extended Interleave Mode].  
The extended interleave mode becomes effective.



- By setting this mode, the initialization time of the main unit increases.
- If memory degradation occurs, the extended interleave mode becomes disabled.
- After completing the setting, be sure to restart the main unit.

### 3.3.13 Setting Up and Testing the AP-Net

This section describes how to perform the Setting Up and Testing the AP-Net operation.



The CE performs Setting Up and Testing the AP-Net.

### Displaying Option Menu

#### **CUI** Operation

1. From the CUI menu, select [Option Menu].  
The Option menu opens.

- For PRIMEPOWER650/850 models

```
Option Menu

1. Disk Drive Firmware Administration
2. Hardware Control Program (HCP) Administration
3. Field Support Strategy Solution Tool (FST) Menu
4. Setting Up and Testing the AP-Net

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-4,b,t):
```

- For PRIMEPOWER900/1500/2500/HPC2500 models

```
Option Menu

1. Disk Drive Firmware Administration
2. Setting Up and Testing the AP-Net

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,b,t):
```

### Setting up the AP-Net

#### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
3. Select [Initialize and test of AP-Net case] from the menu.
4. From this point, perform operations according to the menu.
5. Check the setting.  
If an error is detected, perform the setting again.

### Testing AP-Net connection

#### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].

- When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
- 3. From the menu, select [Connection test of MSC-RTC].
- 4. From this point, perform operations according to the menu.  
When the AP-Net connection test finishes, [All tests ended (return)] appears.

### 3.3.14 Firmware Administration



Note

The following operation should only be performed by a certified service engineer.

The following explains how to operate the Hardware Control Program (HCP) Administration menus and the Disk Firmware Administrator menus.

#### Displaying the Disk Firmware Administrator menu

##### **CUI** Operation

1. From the CUI menu, select [Option Menu].

The Option menu opens.

- For a PRIMEPOWER650/850 main unit

```
Option Menu

1.  Disk Drive Firmware Administration
2.  Hardware Control Program (HCP) Administration
3.  Field Support Strategy Solution Tool (FST) Menu
4.  Setting Up and Testing the AP-Net

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-4,b,t):
```

- For a PRIMEPOWER900/1500/2500/HPC2500 main unit

```
Option Menu

1.  Disk Drive Firmware Administration
2.  Setting Up and Testing the AP-Net

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,b,t):
```

2. From the Option menu, select [Disk Drive Firmware Administration].

The Disk Drive Firmware Administration menu opens.

```
Disk Drive Firmware Administration

1. Display Updateable Disk Drives
2. Display Disk Drive Firmware Update Log
3. Update Disk Drive Firmware from CD-ROM
4. Update Disk Drive Firmware from a Remote host

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,d,q,b,t,h):
```

### Displaying the Hardware Control Program (HCP) Administration menu

The Hardware Program (HCP) Administration menu can be displayed only for a PRIMEPOWER650/850 main unit.

#### **CUI** Operation

1. From the CUI menu, select [Option Menu].

The Option menu opens.

```
Option Menu

1. Disk Drive Firmware Administration
2. Hardware Control Program (HCP) Administration
3. Field Support Strategy Solution Tool (FST) Menu
4. Setting Up and Testing the AP-Net

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,b,t):
```

2. From the Option menu, select [Hardware Control Program (HCP) Administration].

The Hardware Control Program (HCP) Administration menu opens.

```
Hardware Control Program (HCP) Administration

1. Display of Hardware Control Program (HCP) Image(s) Stored in the
   machine administration program
2. Hardware Control Program (HCP) Image Administration
3. Current Hardware Control Program (HCP) Revision Display & Update
4. Hardware Control Program (HCP) Update History

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,q,b,t,h):
```

### 3.3.14.1 HCP File Operation



Note

For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

The following describes how to perform Hardware Control Program (HCP) Administration.



Note

The following operation should only be performed by a certified service engineer.

#### Using Display of Hardware Control Program (HCP) Image(s) Stored in the Machine Administration Program

##### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Display of Hardware Control Program (HCP) Image(s) Stored in the Machine Administration Program].  
A list of the registered firmware appears.
2. To delete firmware, select the firmware to be deleted from the list and perform the required operations according to the menu.  
The selected firmware is deleted.

#### Hardware Control Program (HCP) Image Administration

##### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Hardware Control Program (HCP) Image Administration].  
Information about firmware stored on the HCP CD-ROM or in the working directory appears.
2. Select the firmware to be registered from the list and perform the required operations according to the menu.  
The selected firmware is registered.

### 3.3.14.2 Update Firmware of Main Unit



Note

For PRIMEPOWER900/1500/2500/HPC2500 models, this function is not supported.

The following describes how to perform Hardware Control Program (HCP) Administration:



Note

The following operation should only be performed by a certified service engineer.

### Current Hardware Control Program (HCP) Revision Display & Update

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Current Hardware Control Program (HCP) Revision Display & Update].  
The information about which firmware has been applied to the main unit is displayed.
2. Select the firmware to be applied to the current environment from the registered firmware and perform the required operations according to the menu.  
The selected firmware is applied to the main unit.

### Hardware Control Program (HCP) Update History

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Hardware Control Program (HCP) Update History].  
The update history of the main unit firmware is displayed.

### 3.3.14.3 Disk Firmware Administrator

This section describes how to operate the Disk Firmware Administrator function.

Disk firmware is distributed as HCP data together with the main unit firmware, and is automatically registered concurrently with registration of the main unit firmware. However, after the registration, the disk firmware and main unit firmware are separately managed. The registered main unit firmware can be deleted from the menu; however, the registered disk firmware cannot be deleted.



Note

The following operation should only be performed by a certified service engineer.

### The Indication of the Update Applicable Disk List

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Disk Firmware Administrator].
2. From the Disk Firmware Administrator menu, select [The indication of the update applicable disk list].  
A list of the disks registered as subject to firmware updating by Machine Administration is displayed from among the disks currently connected.

### The Indication of Update Log

#### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Disk Firmware Administrator].
2. From the Disk Firmware Administration menu, select [The indication of update log].

The update history of the disk firmware is displayed.

## The Practice of Update Firmware

### **CUI** Operation

1. From the Hardware Control Program (HCP) Administration menu, select [Disk Firmware Administrator].
2. From the Disk Firmware Administrator menu, select [The practice of update firmware].  
A list of the registered disk firmware appears.
3. Select the disk firmware to be applied.  
A list of the disks to which the selected firmware can be applied appears.
4. Select the disk to which the firmware is to be applied. (Multiple disks can be selected.)  
Firmware update is performed.

## 3.3.15 Diagnostic Program

This section describes how to operate the FJVTS Diagnostic Program menu.

### Displaying the FJVTS Diagnostic Program menu (for the CUI menu)

#### **CUI** Operation

1. From the CUI menu, select [FJVTS Diagnostic Program].  
The FJVTS Diagnostic Program menu opens.

```
FJVTS Diagnostic Program

1. Executed from this terminal
2. Execution from the X terminal specified by the DISPLAY environment
   variable

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t,h):
```

### Executed From This Terminal (for the CUI menu)

#### **CUI** Operation

1. From the FJVTS Diagnostic Program menu, select [Start FJVTS on this terminal].  
FJVTS is started as the diagnostic program.
2. From the FJVTS screen, select [START].  
Diagnosis starts.
3. After diagnosis finishes, select [Quit UI and Kernel] from [quit] of the FJVTS screen.
4. Press the [Return] key.  
The original screen reappears.

## Execution From the X Terminal Specified by the DISPLAY Environment Variable (for the CUI menu)

### Operation

1. Specify the display name used by the diagnostic program during startup in the environment variable.
2. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Execution from the X terminal specified by the DISPLAY environment variable].  
FJVTS is started as the diagnostic program.
3. From the FJVTS screen, select [START].  
Diagnosis starts.
4. After diagnosis finishes, select [Quit UI and kernel] from [quit] of the FJVTS screen.
5. Press the [Return] key.  
The original screen reappears.



See

For information on the method of using FJVTS, see the following manuals:

*"SunVTS User's Manual"*

*"SunVTS Test Reference Manual"*

*"FJVTS Test Reference Manual"*



Note

The following notes must be observed when Machine Administration executes the diagnostic program (FJVTS):

- For execution with the OpenWindows interface from the GUI menu, select the FJVTS Diagnostic Program menu or Diagnostic Program menu of Machine Administration and then specify the display destination DISPLAY according to the screen.  
At the display destination DISPLAY, set the X-Windows access permissions in advance using the xhost command.
- For execution with the OpenWindows interface from the CUI menu, specify the display destination DISPLAY in the environment variable before starting Machine Administration.  
Example: `setenv DISPLAY HOST_NAME:0`
- When FJVTS is executed from the GUI menu, the user interface may fail to start due to an X environment setting error (for example, because xhost was not specified). (Keep this in mind because, if this happens, no error message may appear in some cases.) However, no problem will occur if the X environment is set up later later and FJVTS is re-executed.

### 3.3.16 Remote Setup menu

This section describes how to operate the Remote Setup menu.

Service for this function is provided free of charge within the warranty period.

A separate contract is required after the warranty has expired. For more information about the warranty period and the contract, contact your Fujitsu sales representative.

## Starting Remote Setup menu (not registered)

If the main unit is PRIMEPOWER900/1500/2500/HPC2500, the following menu is not displayed.

### **CUI** Operation

1. From the CUI menu, select [Remote Setup].

The Remote Customer Support System (REMCS) Setup menu opens.

```
m2os1 Remote Customer Support System (REMCS) Setup menu
Series name:PRIMEPWR#C1#, Model name:PW850#####
Check code:DK, Serial No:200850#####

Setting of Connection Type

1. Internet Connection
2. Internet Connection(Mail Only)
3. Management Server Connection
4. Point-to-Point Connection(ISDN)
5. Point-to-Point Connection(VPN)

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select one. (1-5,q,b,t,h):
```



#### Note

The menu items displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



#### See

See Section 3.3.2, "Main Unit Models and Available Menus."

2. Perform operations according to the menu.

| Menu name                        | Function                                                                                                   |
|----------------------------------|------------------------------------------------------------------------------------------------------------|
| Internet Connection              | Connects to the REMCS Center using mail or HTTP via the Internet.                                          |
| Internet Connection (Mail only)  | Connects to the REMCS Center via the Internet, using only mail.                                            |
| Management Server Connection     | Connects to the REMCS Center via the management server. A separate management server must be set provided. |
| Point-to-Point Connection (ISDN) | Connects to the REMCS Center through ISDN.                                                                 |
| Point-to-Point Connection (VPN)  | Connects to the REMCS Center through VPN.                                                                  |



#### See

For information on REMCS Agent, see the following manual:

### Starting Remote Setup menu (registered)

If the main unit is PRIMEPOWER900/1500/2500/HPC2500, the following menu is not displayed.

#### **CUI** Operation

1. From the CUI menu, select [Remote Setup].

The Remote Customer Support System (REMCS) Setup menu opens.

```
m2os1 Remote Customer Support System (REMCS) Setup menu
Series name:PRIMEPWR#C1#, Model name:PW850#####
Check code:DK, Serial No:200850#####

1. Registration
2. REMCS Environment Setting
3. REMCS Operation
4. Change Connection Type
5. Software Investigation Information Collection

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select one. (1-5,q,b,t,h):
```



Note

The menu items displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.



See

See Section 3.3.2, "Main Unit Models and Available Menus."

2. Perform the required operations according to the menu.

| Menu name                                     | Function                                                                                                                                                                                               |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Registration                                  | Executes registration from REMCS Agent to send or register the customer information and device information.                                                                                            |
| REMCS Environment Setting                     | Sets the environment for operating REMCS Agent.                                                                                                                                                        |
| REMCS Operation                               | Sets registration and the REMCS environment, and starts services after successfully confirming connection to the REMCS Center.                                                                         |
| Change Connection Type                        | Selects the method of connection between customers and the REMCS Center.<br>The supported connection methods include Internet Connection, Management Server Connection, and Point-to-Point connection. |
| Software Investigation Information Collection | When a problem occurs that cannot be automatically detected (such as a software operation error), collects investigation information using a simple procedure and sends it to the REMCS Center.        |



See

For information on REMCS Agent, see the following manual:

*REMCS Agent Operator's Guide*

### Starting the Remote Maintenance Setting menu (for a main unit for which connection is set up with SMC)

If the main unit is PRIMEPOWER650/850, the following menu is not displayed.

#### **CUI** Operation

1. From the CUI menu, select [Remote Setup].

The Remote Maintenance Setting menu opens.

```
Remote maintenance setting menu

  1. Software investigation information collection

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1,q,b,t,h):
```

2. From the Remote Maintenance setting menu, select [Software investigation information collection].
3. Perform the required operations according to the menu.



See

For information on REMCS Agent, see the following manual:

*REMCS Agent Operator's Guide*

### 3.3.17 Field Support Strategy Solution Tool (FST) Menu

This section describes how to operate the Field Support Strategy Solution Tool (FST) menu.

The CE uses the Field Support Strategy Solution Tool (FST) menu to collect hardware information.

The system administrator must not use this menu.

#### **CUI** Operation

1. From the CUI menu, select [Option Menu].

The Option menu opens.

```
Option Menu

1. Disk Drive Firmware Administration
2. Hardware Control Program (HCP) Administration
3. Field Support Strategy Solution Tool (FST) Menu
4. Setting Up and Testing the AP-Net

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,b,t):
```

- From the Option Menu, select [Field Support Strategy Solution Tool (FST) Menu].  
The Field Support Strategy Solution Tool (FST) menu opens.

```
Field Support Strategy Solution Tool (FST) Menu

Current FST Settings:

1. FST IP Address
2. Remote Directory Path
3. User Name (to login to FST)
4. Login Password
5. Local File Name
P. Put Data

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-5,q,b,t):
```

- Perform the required operations according to the menu.

### 3.3.18 Version Information

This section describes how to perform the Version Information referencing operation.

#### **CUI** Operation

- From the CUI menu, select [Version Information].

Version Information appears.

<Example>

```
Machine Administration Version/Patch Information
Version: 1.4.0,REV=2003.12.0200      . . . . . (1)
Patches:
  no patches installed              . . . . . (2)
Hit Return Key
```

- (1) Package version of machine administration
- (2) Information of patches applied to machine administration

## 3.4 PRIMEPOWER800/1000/2000, GP7000F model1000/2000

This Section describes how to operate Machine Administration menu.

The operation method for the individual functions is described with the operations used when CUI menus are used.

The functions that can be used only via the GUI menus are described using the GUI menus.

### 3.4.1 Starting and Exiting Machine Administration Menu

This section describes how to start and exit Machine Administration menu.

- Starting Machine Administration Menu
- Exiting Machine Administration Menu
- How to read the Machine Administration Menu

#### 3.4.1.1 Starting Machine Administration Menu

This section describes how to start the CUI menu and GUI menu.

##### CUI menu

###### **CUI** Operation

1. Make sure that the command prompt is displayed on the UNIX screen.
2. Enter the following start command:

```
# /usr/sbin/FJSVmadm/madmin
```

The top menu of the CUI menu opens.



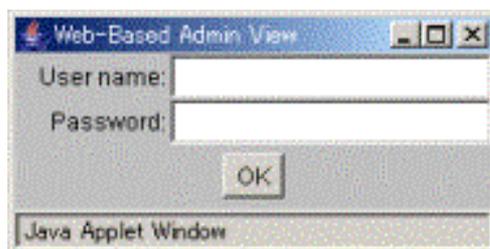
See

See section 4.11, "madmin (1M)."

##### GUI menu

###### **GUI** Operation

1. Enter `http://<host-name>:8081/Plugin.cgi` as the address in the browser window.  
The Web-Based Admin View login window opens.



Note

If the IP address of the server was changed, this setting must be changed as well. For information on the method of changing this setting, see the Section "Changing an IP address on the Public LAN" in the Web-Based Admin View Operation Guide.



#### Information

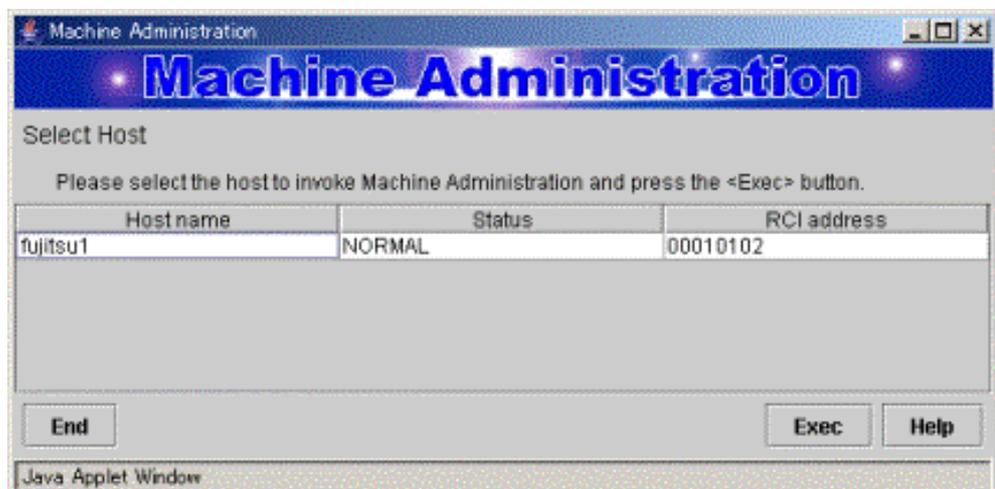
About <host-name> entered as the address in the browser window

If Web-based Admin View cannot be started although a host name was entered in <host-name>, enter the IP address of the business LAN on the secondary management server directly.

2. Enter your user name and password and click the [Confirm] button.  
The Web-Based Admin View menu window opens.



3. Select "Machine Administration" from the Web-Based Admin View menu window.  
The Select Host window opens.



<Explanation of the display>

The Host names, status, and RCI addresses are listed which the management server monitors.

The following keywords may appear in the "Status" column:

- FATAL : Fatal error
- WARNING: A warning-level error or preventive maintenance event occurred.
- NORMAL : Normal
- DOWN : The host is down or communication with the host is not possible.
- UNKNOWN: The status is unknown



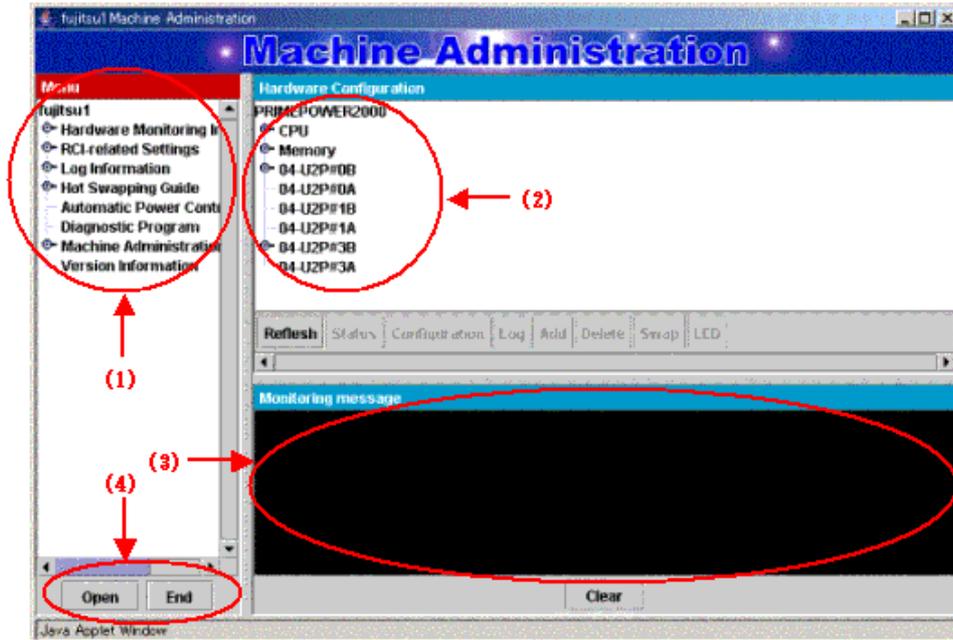
Note

- If the appropriate host name is not recognized because it was changed, "DOWN" appears in the Status column.
- To delete a host name select the host name that you want to delete and click the [Exec] button.  
The selected host name is deleted from the list.
- If the main unit to be monitored does not support the GUI menu (Web-Based Admin View), "DOWN" or "UNKNOWN" appears in the Status column and the GUI menu is not displayed. In this case, the GUI menu cannot be displayed.

4. Click the "host name" for the host that you want to monitor.

5. Click the [Exec] button.

The GUI menu of the selected host opens.



### 3.4.1.2 Exiting Machine Administration Menu

This section describes how to close the CUI menu or GUI menu.

**CUI menu****CUI** Operation

1. Enter the number of "Exit".  
Machine Administration menu exits.

**GUI menu****GUI** Operation

1. Click the [End] button the GUI menu.  
Machine Administration menu exits and the Select Host window opens again.
2. Click the [End] button in the Select Host window.  
The Web-Based Admin View menu opens again.
3. Click [x] in the upper right of the Web-Based Admin View menu.  
The Web-Based Admin View menu closes.

**3.4.1.3 How to read the CUI menu**

**CUI** The top menu of the CUI menu is shown below.

The following shows the CUI menus corresponding to the main unit model.

**When the main unit model is PRIMEPOWER800/1000/2000 or GP7000F model 1000/2000**

```
Machine Administration Menu

 1. Hardware Configuration
 2. Hardware Monitoring Information
 3. RCI-related Settings
 4. UPS Setup
 5. Log Data
 6. Hot Swapping Guide
 7. Diagnostic Program
 8. Remote Setup
 9. Option Menu
10. Version Information
11. Exit
q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select(1-11,q,h):
```

<Explanation of the display>

- (1): Enter the desired item at the location of the cursor.
- 1-11: To select a menu, enter the menu number.
  - q : If you want to quit the operation, enter "q".
  - h : If you want to display help, enter "h".



Note

Some menu items may be unusable even if they are displayed.



See

See Section 3.4.2, "Main Unit Models and Available Menus."

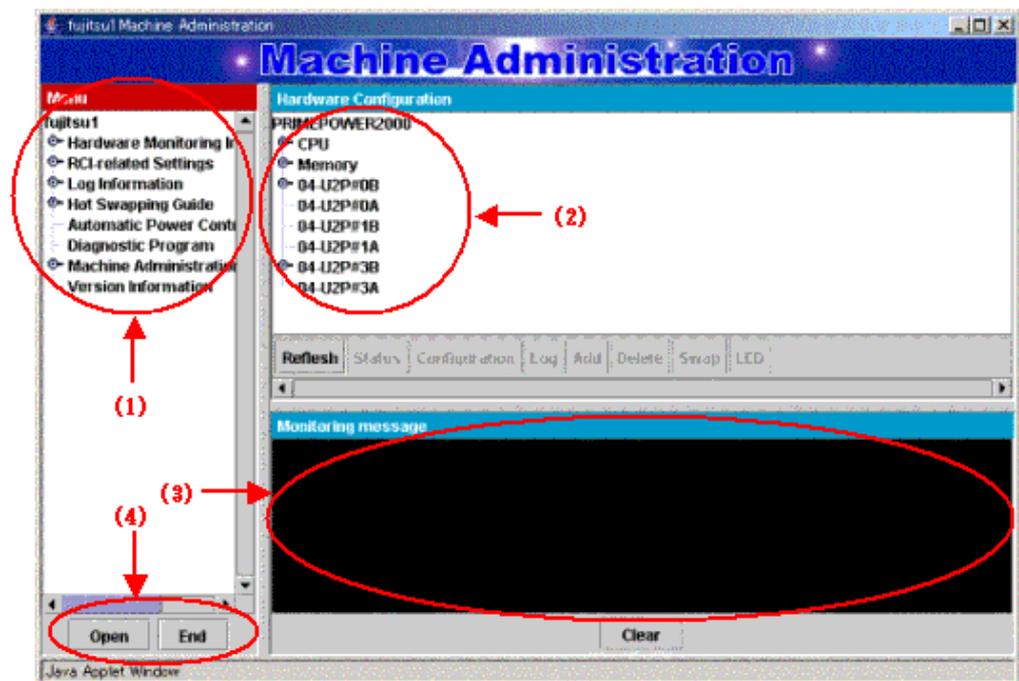
### 3.4.1.4 How to read the GUI menu

#### GUI

The GUI menu is shown below.

In the GUI menu, the main menu consists of the following three areas:

- Menu display area
- Hardware configuration display area
- Monitoring information message display area



<Explanation of the display>

- (1): Menus are displayed in tree format.  
By default, only the top-level of menus are displayed.  
Clicking displays subsequent levels of the menu.  
Selecting a menu displays the appropriate menu window in another window.
- (2): Hardware configuration is always displayed.  
It displays the name of each hardware component (such as CPU, memory, and battery), and the symbols representing hardware component in detail.

- (3): If the status of the hardware component to be monitored changes, a message appears in this area.
- (4): The each buttons have the following functions:
- [Open] button: Selecting this button enables you to display the new-lower level of the menu for the selected menu item. Selecting the lowest level of the menu displays the appropriate window as a new window.
  - [End] button: Selecting this button ends Machine Administration.
  - [Clear] button: Selecting this button clears the message displayed in the Monitoring message area.
  - [Refresh] button: Selecting this button updates the information displayed in the Hardware Configuration area.
  - [Status] button: Selecting this button displays the status and detailed node information for the node selected in the Hardware Configuration area.
  - [Configuration] button: Selecting this button opens the notification settings window for the node selected in the Hardware Configuration area. This button is active only when a battery, UPS unit, fan, power supply unit, disk, memory, CPU or tape unit is selected.
  - [Log] button: Selecting this button opens the log information window for the node selected in the Hardware Configuration area. This button is active only when a disk, memory, fan, or power supply unit is selected.
  - [Add] button: Selecting this button opens the addition window for the node selected in the Hardware Configuration area. This button is active only when a battery is selected.
  - [Delete] button: Selecting this button opens the deletion window for the node selected in the Hardware Configuration area. This button is active only when a battery is selected.
  - [Swap] button: Selecting this button opens the Hot Swapping Guide window for the node selected in the Hardware Configuration area. This button is active only when a hot swappable disk, power supply unit, or fan is selected.
  - [LED] button: Selecting this button opens the Confirming the RCI-connected Units window for the node selected in the Hardware Configuration area. This button is active only when an RCI node is selected.

### 3.4.2 Main Unit Models and Available Menus

In Machine Administration, the menu provided depends on the main unit model to be monitored. The tables below show the relationships between main unit models and available menus.

#### How to read the tables

- The table below shows the meanings of the symbols.

| Symbol | Meaning                                                                                                                                                                                                                                                                           |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Y      | The appropriate function is available in the CUI menu and GUI menu.                                                                                                                                                                                                               |
| N      | The appropriate function is unavailable.                                                                                                                                                                                                                                          |
| *1     | The appropriate function is available only in the CUI menu.                                                                                                                                                                                                                       |
| *2     | The appropriate function is available only in the GUI menu.                                                                                                                                                                                                                       |
| *3     | The appropriate function is available in System Management Console.<br><br><b>See</b> For information about System Management Console, see the <i>"System Console Software User's Guide"</i> . |
| *4     | The appropriate function is available but the appropriate menu is unavailable.<br>Log data is collected.                                                                                                                                                                          |

**Main unit models and available menus**

| Menu name                                                | Main unit                                        | Reference destination of function explanation | Reference destination of operation explanation |
|----------------------------------------------------------|--------------------------------------------------|-----------------------------------------------|------------------------------------------------|
|                                                          | PRIMEPOWER800/1000/2000, GP7000F model 1000/2000 |                                               |                                                |
| <b>Hardware Monitoring Function</b>                      |                                                  |                                               |                                                |
| Hardware Configuration Display                           |                                                  |                                               |                                                |
| Hardware Configuration Display                           | Y                                                | 2.1.1                                         | 3.4.5                                          |
| Hardware Detailed Configuration Display                  | Y                                                | 2.1.1                                         | 3.4.5                                          |
| Hardware Monitoring Information Function                 |                                                  |                                               |                                                |
| Battery Life Monitoring                                  | *3                                               | 2.1.2                                         | -                                              |
| Fan Monitoring                                           | *3                                               | 2.1.2                                         | -                                              |
| Disk Monitoring                                          | Y                                                | 2.1.2                                         | 3.3.6.1                                        |
| Tape Unit Monitoring                                     | Y                                                | 2.1.2                                         | 3.4.6.2                                        |
| CPU Monitoring                                           | *3                                               | 2.1.2                                         | -                                              |
| Memory Monitoring                                        | *3                                               | 2.1.2                                         | -                                              |
| Power Supply Unit Monitoring                             | *3                                               | 2.1.2                                         | -                                              |
| UPS Monitoring                                           | *3                                               | 2.1.2                                         | -                                              |
| Degradation Monitoring                                   | *3                                               | 2.1.2                                         | -                                              |
| Setting Monitoring Notification Information              | *3                                               | 2.1.2                                         | -                                              |
| Saving/Restoring Hardware Monitoring Information         | Y                                                | 2.1.2                                         | 3.4.6.3                                        |
| <b>Log Data Function</b>                                 |                                                  |                                               |                                                |
| Log Data                                                 |                                                  |                                               |                                                |
| Message Log                                              | Y                                                | 2.2                                           | 3.4.7.1                                        |
| Disk Error Information                                   | Y                                                | 2.2                                           | 3.4.7.2                                        |
| Disk Error Statistics Information                        | *1                                               | 2.2                                           | 3.4.7.3                                        |
| Memory Error Information                                 | *3                                               | 2.2                                           | -                                              |
| Hardware Error Log                                       | *3                                               | 2.2                                           | -                                              |
| Machine Administration Monitoring Log                    | Y                                                | 2.2                                           | 3.4.7.4                                        |
| SCF Error Log                                            | *3                                               | 2.2                                           | -                                              |
| Thermal Error Log                                        | *3                                               | 2.2                                           | -                                              |
| Fan Error Log                                            | *3                                               | 2.2                                           | -                                              |
| Power Error Log                                          | *3                                               | 2.2                                           | -                                              |
| Power-failure/Power-recovery log                         | *3                                               | 2.2                                           | -                                              |
| Power Log                                                | *3                                               | 2.2                                           | -                                              |
| Saving the Log Data to a File                            | Y                                                | 2.2                                           | 3.4.7.5                                        |
| Collecting System Information                            | *1                                               | 2.2                                           | 3.4.7.6                                        |
| <b>Maintenance Guide Function</b>                        |                                                  |                                               |                                                |
| Hot Swapping Guide                                       |                                                  |                                               |                                                |
| The Faulty Hard Disk Drive Replacement (Hot Swap)        | Y                                                | 2.3                                           | Appendix B                                     |
| Preventive Maintenance of the Hard Disk Drive (Hot Swap) | *1                                               | 2.3                                           | Appendix B                                     |
| Include the Hard Disk Drive after the Cold Maintenance   | *1                                               | 2.3                                           | Appendix B                                     |
| Power Supply Unit of Main Cabinet                        | *3                                               | 2.3                                           | -                                              |
| Fan Unit of Main Cabinet                                 | *3                                               | 2.3                                           | -                                              |
| Power Supply Unit of Expansion Cabinet                   | *3                                               | 2.3                                           | -                                              |
| Fan Unit of Expansion Cabinet                            | *3                                               | 2.3                                           | -                                              |

| Menu name                                           | Main unit                                        | Reference destination of function explanation | Reference destination of operation explanation |
|-----------------------------------------------------|--------------------------------------------------|-----------------------------------------------|------------------------------------------------|
|                                                     | PRIMEPOWER800/1000/2000, GP7000F model 1000/2000 |                                               |                                                |
| <b>Automatic Power Control Function</b>             |                                                  |                                               |                                                |
| Start Schedule                                      | *3                                               | 2.4                                           | -                                              |
| Stop Schedule                                       | *3                                               | 2.4                                           | -                                              |
| Add Schedule Entry                                  | *3                                               | 2.4                                           | -                                              |
| Add Holiday                                         | *3                                               | 2.4                                           | -                                              |
| Select and Delete Schedule Entries                  | *3                                               | 2.4                                           | -                                              |
| Delete all                                          | *3                                               | 2.4                                           | -                                              |
| List Schedule Entries                               | *3                                               | 2.4                                           | -                                              |
| Show Status of Schedule Entries                     | *3                                               | 2.4                                           | -                                              |
| <b>Hardware Operation Setting Functions</b>         |                                                  |                                               |                                                |
| RCI-related Settings                                |                                                  |                                               |                                                |
| Displaying a List of RCI Devices                    | *3                                               | 2.5.2                                         | -                                              |
| Confirming the RCI-connected Units                  | *3                                               | 2.5.2                                         | -                                              |
| Reconfiguring the RCI Network (RCI Device Addition) | *3                                               | 2.5.2                                         | -                                              |
| Setting the RCI Host Address                        | *3                                               | 2.5.2                                         | -                                              |
| Initial RCI Network Setup                           | *3                                               | 2.5.2                                         | -                                              |
| Setting the External Equipment Wait Time            | *3                                               | 2.5.2                                         | -                                              |
| RCI Device Replacement                              | *3                                               | 2.5.2                                         | -                                              |
| System Control Administration                       |                                                  |                                               |                                                |
| Setting the External Equipment Wait Time            | *3                                               | 2.5.3                                         | -                                              |
| Warm-up Time Administration                         | *3                                               | 2.5.3                                         | -                                              |
| UPS Setup                                           |                                                  |                                               |                                                |
| Setting waiting time for shutdown at power failure  | *1                                               | 2.5.3                                         | 3.4.9.1                                        |
| Option Menu                                         |                                                  |                                               |                                                |
| Setting Up and Testing the AP-Net                   | *1                                               | 2.5.4                                         | 3.4.10                                         |
| <b>Firmware Management Function</b>                 |                                                  |                                               |                                                |
| HCP File Operation                                  | *3                                               | 2.6                                           | -                                              |
| Update firmware of main unit                        | *3                                               | 2.6                                           | -                                              |
| Option Menu                                         |                                                  |                                               |                                                |
| Disk Firmware Administrator                         | *1                                               | 2.6                                           | 3.4.11.1                                       |
| <b>Maintenance Program Setup Function</b>           |                                                  |                                               |                                                |
| Diagnostic Program                                  | Y                                                | 2.7                                           | 3.4.12                                         |
| Remote Setup                                        | *1                                               | 2.7                                           | 3.4.13                                         |
| <b>Other Functions</b>                              |                                                  |                                               |                                                |
| Machine Administration Environment                  |                                                  |                                               |                                                |
| Setting of Management Server Log                    | *2                                               | 2.8                                           | 3.4.14                                         |
| Setting of Hardware Information Display Window      | *2                                               | 2.8                                           | 3.4.15                                         |
| Version Information                                 | Y                                                | 2.8                                           | 3.4.16                                         |

### 3.4.3 When to Make Settings

Machine Administration supports three types of settings. The first type of settings are made when the main unit is installed. The second type of settings are made when the main unit is in operation. The third type of settings are made as required.

The tables below show settings to be made and the persons in charge responsible for making these settings.

The meanings of symbols in the "Person in charge" column are as follows.

Y: The customer engineer or system administrator makes the appropriate setting.

-: Other persons in charge make the appropriate setting.

| When to make the setting                         | Contents of the setting                           | Reference destination                                    | Person in charge  |                      |
|--------------------------------------------------|---------------------------------------------------|----------------------------------------------------------|-------------------|----------------------|
|                                                  |                                                   |                                                          | Customer engineer | System administrator |
| At installation of the main unit                 |                                                   |                                                          |                   |                      |
|                                                  | Monitoring battery life (*1)                      | Refer to the "System Console Software User's Guide."     | Y                 | -                    |
|                                                  | Setting Monitoring Notification Information       | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Warm-up Time Administration                       | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Setting the External Equipment Wait Time          | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Remote Customer Support System (REMCS) Setup Menu | 3.4.13 Remote Customer Support System (REMCS) Setup Menu | -                 | Y                    |
| When the main unit is in operation               |                                                   |                                                          |                   |                      |
| When an error occurs/<br>when a part is replaced | Fan Monitoring                                    | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Disk Monitoring                                   | 3.4.13 Disk Monitoring                                   | -                 | Y                    |
|                                                  | CPU MONITORING                                    | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Memory Monitoring                                 | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
| When an error occurs                             | Tape Unit Monitoring                              | 3.4.6.2 Tape Unit Monitoring                             | -                 | Y                    |
|                                                  | Power Supply Unit Monitoring                      | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | UPS MONITORING                                    | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Degradation Monitoring (*2)                       | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
| As required                                      | Setting Management Server Logging                 | 3.4.14 Setting Management Server Logging                 | -                 | Y                    |
|                                                  | Hardware Information Display Settings             | 3.4.15 Hardware Information Display Settings             | -                 | Y                    |
|                                                  | Reconfiguring The RCI Network                     | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Setting The RCI Host Address                      | Refer to the "System Console Software User's Guide."     | -                 | Y                    |
|                                                  | Setting Up and Testing the AP-Net                 | 3.4.10 Setting Up and Testing the AP-Net                 | -                 | Y                    |
|                                                  | HCP File Operation                                | Refer to the "System Console Software User's Guide."     | -                 | Y                    |

\*1 Make this setting not only when installing the main unit but also when performing preventive swapping.

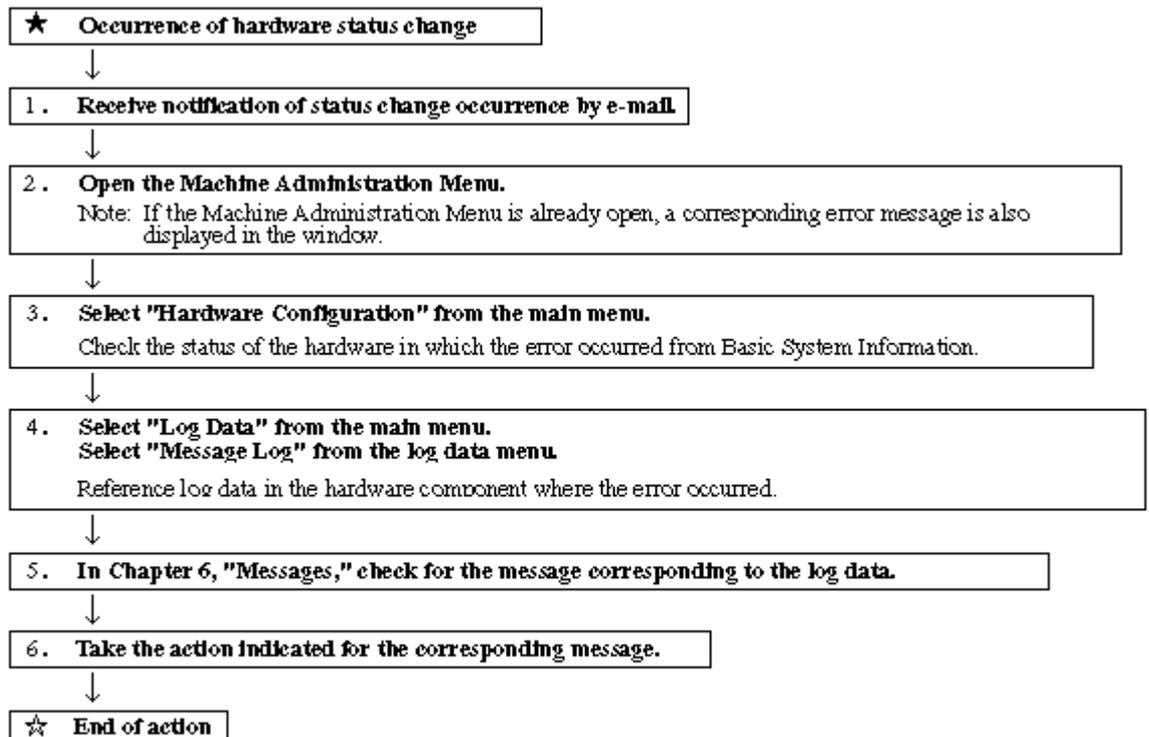
\*2 Degradation Monitoring must be set up if an error is detected during initialization.

### 3.4.4 Example of Action Taken for Status Changes

When the e-mail notification setting is set to "notification" beforehand, Machine Administration sends out an e-mail notification whenever a change in the status occurs. Machine Administration also displays an error message in the console and GUI menu.

The e-mail notification setting needs to be made. Use SMC to make this setting. For information about how to make the e-mail notification setting, see the "System Console Software User's Guide."

The following shows an example of the actions taken in response to changes of the hardware status.



### 3.4.5 Hardware Configuration

This section describes how to operate the hardware configuration menus.

#### Displaying the Hardware Configuration menu

##### **CUI** Operation

1. From the CUI menu, select [Hardware Configuration].  
The Hardware Configuration menu opens.

```
Hardware Configuration

1. Hardware Configuration Display
2. Hardware Detailed Configuration Display

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t,h):
```

### Displaying hardware configuration information

The following describes how to operate the Hardware Configuration Display:

#### **CUI** Operation

1. From the Hardware Configuration menu, select [Hardware Configuration Display].  
The hardware configuration information appears.

<Example>

```
PRIMEPOWER2000
CPU
  04-CPU#0
  04-CPU#1
Memory
  04-SLOT#A00
  04-SLOT#A01
  04-SLOT#A02
  04-SLOT#A03
  04-SLOT#A10
  04-SLOT#A11
  04-SLOT#A12
  04-SLOT#A13
  04-SLOT#A20
  04-SLOT#A21
  04-SLOT#A22
  04-SLOT#A23
  04-SLOT#A30
  04-SLOT#A31
  04-SLOT#A32
  04-SLOT#A33
04-U2P#0B
```

<Explanation of the display>

The status of the following hardware components is displayed: CPU, memory, disk, channels, adapter, and devices. If a hardware fault is detected, a symbol indicating the status is displayed for the corresponding hardware component.



See

For information about the symbols indicating statuses, see Section 2.1.1, "Hardware configuration display function."



Note

- For the PRIMEPOWER series and GP7000F model 200R/400A/400R, the following

information appears:

x in "0x-" coded before the hardware name indicates the number of the motherboard.

- A disk managed by SynfinityDISK or PRIMECLUSTER GDS is displayed as "sfdsk" after sdn or hddvn.
- A device detected as faulty at main unit initialization and which is degraded is displayed in "Failed Units."

### Displaying the detailed hardware configuration information

The following describes how to operate the Hardware Detailed Configuration Display:

#### **CUI** Operation

1. From the Hardware Configuration menu, select [Hardware Detailed Configuration Display].  
The detailed hardware configuration information appears.

<Example>

```
PRIMEPOWER2000 Node Name:kaiser2;Host ID:80f300db
CPU
  04-CPU#0 Status:normal;Freq:300;Cache:8.0;Impl.:3;Mask:4.0
  04-CPU#1 Status:normal;Freq:300;Cache:8.0;Impl.:3;Mask:4.0
Memory
  04-SLOT#A00 256MB used;Status:normal
  04-SLOT#A01 256MB used;Status:normal
  04-SLOT#A02 256MB used;Status:normal
  04-SLOT#A03 256MB used;Status:normal
  04-SLOT#A10 256MB used;Status:normal
  04-SLOT#A11 256MB used;Status:normal
  04-SLOT#A12 256MB used;Status:normal
  04-SLOT#A13 256MB used;Status:normal
  04-SLOT#A20 256MB used;Status:normal
  04-SLOT#A21 256MB used;Status:normal
  04-SLOT#A22 256MB used;Status:normal
  04-SLOT#A23 256MB used;Status:normal
  04-SLOT#A30 256MB used;Status:normal
  04-SLOT#A31 256MB used;Status:normal
  04-SLOT#A32 256MB used;Status:normal
  04-SLOT#A33 256MB used;Status:normal
04-U2P#0B
```

<Explanation of the display>

The status of the following hardware components is displayed: CPU, memory, disk, channels, adapter, and devices. If a hardware fault is detected, a symbol indicating the status appears for the corresponding hardware.



See

For information about the status symbols, see Section 2.1.1, "Hardware configuration display function."

## 3.4.6 Hardware Monitoring Information

This section describes how to operate the hardware monitoring information menus.

## Displaying the Hardware Monitoring Information menu

### **CUI** Operation

1. From the CUI menu, select [Hardware Monitoring Information].  
The Hardware Monitoring Information menu opens.

```
Hardware Monitoring Information

1. Battery Life Monitoring
2. UPS Monitoring
3. Fan Monitoring
4. Power Supply Unit Monitoring
5. Disk Monitoring
6. Memory Monitoring
7. Degradation Monitoring
8. Tape Unit Monitoring
9. Setting Monitoring Notification Information
10. Saving/Restoring Hardware Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-10,q,b,t,h):
```



#### Note

The menu items to be displayed depend on the main unit model.  
Moreover, there are cases where displayed menu items may not be available for use.



#### See

See Section 3.4.2, "Main Unit Models and Available Menus."

### 3.4.6.1 Disk Monitoring



#### Note

The Disk Monitoring function automatically monitors all connected devices.  
For this reason, an application or driver error may occur if an operational conflict with other applications occurs or the disk array device is used.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
#/usr/sbin/FJSMadm/noccheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.



#### See

See Section 4.12, "noccheckdev (1M)."

## Displaying the Disk Monitoring menu

### **CUI** Operation

- From the Hardware Monitoring Information menu, select [Disk Monitoring].  
The Disk Monitoring menu opens.

```

Disk Monitoring

  1. Displaying and Setting Disk Monitoring Information
  2. Setting Disk Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):

```



#### Note

The menu items to be displayed depend on the main unit model. Moreover, there are cases where displayed menu items may not be available for use.



#### See

See Section 3.4.2, "Main Unit Models and Available Menus."

## Displaying Disk Monitoring Information

The following describes how to operate the Displaying Disk Monitoring Information function:

### **CUI** Operation

- From the Disk Monitoring menu, select [Displaying and Setting Disk Monitoring Information].  
The disk monitoring information appears.  
This information includes:
  - Unit  
The instance name of the disk device
  - Status  
The disk status  
Normal: Normal status  
Error: A disk error was detected. The part needs to be replaced immediately.  
Replace: A disk error was detected. Preventive replacement of the part is required.
  - Immediate Replacement Notification Destination  
Indicates whether a notification is to be issued to prompt for immediate replacement when an error was detected.  
Valid: Notification  
Invalid: No notification
  - Preventive Replacement Notification Destination  
Indicates whether a notification is to be issued to prompt for preventive replacement when replacement is required.  
Valid: Notification  
Invalid: No notification

### Setting Disk Monitoring Information

The following describes how to perform the Setting Disk Monitoring Information operation.

The main units of PRIMEPOWER800/1000/2000 and GP7000F model 1000/2000 do not support the setting of [Setting Valid/Invalid Notification].

#### **CUI** Operation

1. From the Disk Monitoring menu, select [Displaying and Setting Disk Monitoring Information].

The disk monitoring information list appears.

2. Select the disk to be set.
3. Enter the following information in the menu:

- Setting Valid/Invalid Notification

Specify whether a notification to be issued, for each device. The default is "Valid."

Valid: Notification

Invalid: No notification

The above setting can be made for the following types of notifications:

- Immediate Replacement Notification Destination  
Used to prompt for the immediate replacement of a disk when a hardware error was detected.
- Preventive Replacement Notification Destination  
Used to monitor the threshold managed by the SMART function and to prompt for preventive replacement of a disk before a hardware error is detected.
- Resetting Monitoring Information  
Reset the monitoring information when a disk was replaced.

### Setting Disk Monitoring Notification

The following describes how to perform the Setting Disk Monitoring Notification operation:

#### **CUI** Operation

1. From the Disk Monitoring menu, select [Setting Disk Monitoring Notification].

The Setting Disk Monitoring Notification menu opens.

2. Enter the following information in the menu:

- Immediate Replacement Notification Destination

If immediate replacement notification is required, specify the destination to which that notification is automatically sent.

Specify the notification destination from the following:

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE

- Preventive Replacement Notification Destination

If preventive replacement notification is required, specify the destination to which that notification is automatically sent.

Specify the notification destination from the following:

- Output to the console
- Sending mail to the system administrator
- Sending mail to the CE

**Note**

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.4.6.2 Tape Unit Monitoring

**Note**

The monitoring function automatically operates for all connected devices. For this reason, an application or driver error to the effect that the device is indicated as busy may occur if a device-open operation from another application conflicts with this function.

If this happens, execute the following command to exclude the error-causing device from monitoring.

```
# /usr/sbin/FJSVmadm/nocheckdev add device_pathname
```

If this command is executed, the relevant device is not monitored.

**See**

See Section 4.12, "nocheckdev (1M)."

### Displaying the Tape Unit Monitoring menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Tape Unit Monitoring].  
The Tape Unit Monitoring menu opens.

```
Tape Unit Monitoring

 1. Displaying and Setting Tape Unit Monitoring Information
 2. Setting Tape Unit Monitoring Notification

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

**Note**

Menu items to be displayed depend on the main unit model.

Moreover, there are cases where displayed menu items may not be available for use.

**See**

See Section 3.4.2, "Main Unit Models and Available Menus."

### Displaying Tape Unit Monitoring Information

The following describes how to operate the Displaying Tape Unit Monitoring Information function:

#### **CUI** Operation

1. From the Tape Unit Monitoring menu, select [Displaying and Setting Tape Unit Monitoring Information].

The tape unit monitoring information appears.

This information includes:

- Unit  
The instance name of the tape unit
- Status  
The tape unit status  
Normal: Normal status  
Error: An error was detected. The part needs to be replaced immediately.  
Cleaning Required: The part needs to be cleaned.
- Immediate Replacement Notification Destination  
Specify whether a notification is to be issued to prompt for immediate replacement of the tape unit if a hardware error was detected.  
Valid: Notification.  
Invalid: No notification.
- Cleaning Request Notification Destination  
Specify whether a notification is to be issued to prompt for cleaning when the part needs to be cleaned.  
Valid: Notification.  
Invalid: No notification.

### Setting Tape Unit Monitoring Information

The following describes how to perform the Setting Tape Unit Monitoring Information operation:

#### **CUI** Operation

1. From the Tape Unit Monitoring menu, select [Displaying and Setting Tape Unit Monitoring Information].

The tape unit monitoring information list appears.

2. Select the tape unit to be set.
3. Enter the following information in the menu:
  - Setting Valid/Invalid Notification  
Specify whether a notification is to be issued, for each device. The default is "Valid."  
Valid: Notification.  
Invalid: No notification.  
The above setting can be made for the following types of notifications:  
Immediate Replacement Notification Destination: Used to prompt for the immediate replacement of the tape unit if a hardware error was detected.  
Cleaning Request Notification Destination: Used to prompt for cleaning if the part needs to be cleaned.  
The main units of PRIMEPOWER800/1000/2000 and GP7000F model 1000/2000 do not

- support this function.
- Resetting Monitoring Information
- Reset the monitoring information when the tape unit was replaced.

### Setting Tape Unit Monitoring Notification

The following explains how to perform the Setting Tape Unit Monitoring Notification operation:

#### **CUI** Operation

1. From the Tape Unit Monitoring menu, select [Setting Tape Unit Monitoring Notification].  
The Setting Tape Unit Monitoring Notification menu opens.
2. Enter the following information in the menu:
  - Immediate Replacement Notification Destination  
If immediate replacement notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE
  - Cleaning Request Notification Destination  
If cleaning notification is required, specify the destination to which that notification is automatically sent.  
Specify the notification destination from the following:
    - Output to the console
    - Sending mail to the system administrator
    - Sending mail to the CE



#### Note

Specify the mail address from the Setting Monitoring Notification Information menu of the Hardware Monitoring Information menu.

### 3.4.6.3 Saving/Restoring Hardware Monitoring Information

This section describes how to operate the Saving/Restoring Hardware Monitoring Information function.

#### Displaying the Saving/Restoring Hardware Monitoring Information menu

#### **CUI** Operation

1. From the Hardware Monitoring Information menu, select [Saving/Restoring Hardware Monitoring Information].  
The Saving/Restoring Hardware Monitoring Information menu opens.

```
Saving/Restoring Hardware Monitoring Information

1. Saving Hardware Monitoring Information
2. Restoring Hardware Monitoring Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-2,q,b,t):
```

### Saving Hardware Monitoring Information

The following describes how to operate the Saving Hardware Monitoring Information function:

#### **CUI** Operation

1. From the Saving/Restoring Hardware Monitoring Information menu, select [Saving Hardware Monitoring Information].
2. Select the log data to be saved.
3. Enter the name of the save destination directory with the full path.
4. Enter the file name (FJSVmadminfo.tar.Z) in the specified directory.



#### Information

If the information was saved in a file used for reinstalling the main unit, it needs to be copied to another main unit or storage medium.

### Restoring Hardware Monitoring Information

The following describes how to operate the Restoring Hardware Monitoring Information function:

#### **CUI** Operation

1. From the Saving/Restoring Hardware Monitoring Information menu, select [Restoring Hardware Monitoring Information].
2. Enter the full path of the directory containing the original file to be restored.
3. FJSVmadminfo.tar.Z of the specified directory is restored.

## 3.4.7 Log Data

This section describes how to operate the various log data menus.

### Displaying the Log Data menu

#### **CUI** Operation

1. From the CUI menu, select [Log Data].  
The Log Data menu opens

```

Log Data

1. Disk Error Information
2. Disk Error Statistics Information
3. Memory Error Information
4. Message Log
5. Thermal Error Log
6. Fan Error Log
7. Power Error Log
8. SCF Error Log
9. Power-failure/Power-recovery Log
10. Power Log
11. Machine Administration Monitoring Log
12. Saving the Log Data
13. Collecting System Information

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select. (1-13,q,b,t):

```



#### Note

The menu items to be displayed depend on the main unit model. Moreover, there are cases where displayed menu items may not be available for use. Menu items to be displayed differ between the CUI and GUI menus.



#### See

See Section 3.4.2, "Main Unit Models and Available Menus."

### 3.4.7.1 Message logs

This section describes how to display message logs.

#### **CUI** Operation

1. From the Log Data menu, select [Message Log].
2. Specify the following items and retrieve log data in accordance with the menu:

- Specification of range

Displays the message log data in the range of the specified dates.

If Starting date is omitted, the starting day is January 1.

If Completion date is omitted, the ending day is December 31.

If both Starting date and Completion date are omitted, the log in the range from the beginning to the end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If October 1 is specified as Starting date and March 31 is specified as Completion date, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to the end of the log file.

- Specification of Time (only)

Displays the message logs in the specified time range.  
If Starting time is omitted, the starting time is 00:00.  
If Completion time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Starting time and 08:00 is specified as Completion time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified in Specification of Range and 1700 to 0900 is specified in Specification of Time (Only), the log data from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.
- Retrieval character string

Retrieves and displays messages containing the specified character strings.  
Multiple retrieval character strings can be specified.  
If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any of the strings are to be displayed.  
The default is "Any of the strings match."  
Retrieval character string selects whether messages are to be retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."
- Display order

Selects whether information is displayed starting from the latest or the oldest information.  
The default is "latest information."

### 3.4.7.2 Disk error information

This section describes how to display disk error information.

#### **CUI** Operation

1. From the Log Data menu, select [Disk Error Information].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display range

Displays the disk error information in the range of the specified date.  
If Display start date is omitted, the starting day is January 1.  
If Display end date is omitted, the ending day is December 31.  
If both Display start date and Display end date are omitted, the log data in the range from the beginning to end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If Display start date is specified as October 1 and Display end date is specified as March 31, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to end of the log file.
  - Time period

Displays the disk error information in the specified time range.  
If Display start time is omitted, the starting time is 00:00.  
If Display end time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

- Retrieval character string

Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are to be retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."

- Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

### 3.4.7.3 Disk Error Statistics Information

This section describes how to display disk error statistics information.

#### **CUI** Operation

1. From the log data menu, select [disk error statistics information].
2. Use either of the following methods to specify in the menu the disk for which disk error statistics information is to be displayed:
  - Entering the name of the disk
 

Enter the name of the disk as displayed in the various messages or menu screens. The following types of names can be used:

    - sd driver instance name
    - logical device name (logical device name registered in /dev/rdisk)
    - physical device name (Unit name as registered in a message column)
  - Selecting the disk name from a list
 

Enter "L". A list displaying the names of all disks for which information can be displayed appears; select the target disk from this list.

### 3.4.7.4 Machine Administration monitoring log

This section describes how to display the Machine Administration monitoring log.

#### **CUI** Operation

1. From the Log Data menu, select [Machine Administration Monitoring Log].
2. Specify the following items and retrieve log data in accordance with the menu:
  - Display Range
 

Displays the Machine Administration monitoring log in the range of the specified date.

If Display start date is omitted, the starting day is January 1.

If Display end date is omitted, the ending day is December 31.

If both Display start date and Display end date are omitted, the log data in the range from

the beginning to end of the log file is displayed. If the log contains information spanning multiple years, the information for all of the years in the specified range is displayed.

<Example>

If Display start date is specified as October 1 and Display end date is specified as March 31, the information logged from October 1 of a year to March 31 of the next year is displayed in the range from the beginning to the end of the log file.

– Time period

Displays the Machine Administration monitoring log data in the specified time range.

If Start Time is omitted, the starting time is 00:00.

If End Time is omitted, the ending time is 23:59.

<Example>

If 20:00 is specified as Display start time and 08:00 is specified as Display end time, the information logged from 20:00 to 08:00 is displayed in the range from the beginning to the end of the log file.

If 0501 to 0831 is specified in Display range and 1700 to 0900 is specified in Time period, the information logged from 17:00 of a day to 09:00 of the next day is displayed in the range from May 1 to August 31.

– Retrieval character string

Retrieves and displays messages containing the specified character strings.

Multiple retrieval character strings can be specified.

If multiple character strings are specified, selects whether only messages containing matches of all the character strings or those containing a match of any one of the strings are to be displayed.

The default is "Any of the strings match."

Retrieval character string selects whether messages are retrieved and displayed line by line or in units of multiple lines for messages logged at the same time. The default is "in units of multiple lines."

– Display order

Selects whether information is displayed starting from the latest or oldest information.

The default is "latest information."

### 3.4.7.5 Saving the log data

This section describes how to operate the Saving the Log Data function.

Saving the Log Data saves log data of various types. The following types of log data can be saved:

- All
- Message Log
- Machine Administration Monitoring Log
- SCF Error Log
- Power Log



Information

The CE uses the file in which the log data was saved, when hardware is faulty.

## Displaying the Saving the Log Data menu

### **CUI** Operation

- From the Log Data menu, select [Saving the Log Data].  
The Saving the Log Data menu opens.

```

Saving the Log Data

1. All
2. Message Log
3. Machine Administration Monitoring Log
4. SCF Error Log
5. Power Log

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
To specify more than one, use a comma to delimit the number such as 2,3.
Do you specify information to be saved? (1-5,q,b,t,h):

```



#### Note

The menu items to be displayed depend on the main unit model.  
Moreover, there are cases where displayed menu items may not be available for use.



#### See

See Section 3.4.2, "Main Unit Models and Available Menus."

## Save Log Data to a File

### **CUI** Operation

- From the Save Log Data to a File menu, select the log data to be saved.
- Enter the following information in the menu:
  - Save destination  
Specify the save destination file name with the full path.  
The file is created in tar format and is compressed with the "compress" command.

### 3.4.7.6 Collecting system information

This section describes how to operate the Collecting System Information function.

If a main unit error occurs, Collecting System Information outputs the following information to a file:

- Information relating to the hardware and software configurations, environment setting, logs, and operation statuses
- Information such as command execution results



#### Information

The CE uses the file in which system information was collected.

## Displaying the Collecting System Information menu

### **CUI** Operation

1. From the Log Data menu, select [Collecting System Information].

The Collecting System Information menu opens.

```
Collecting System Information
System Information Menu

1. all
2. basic software
3. high availability
4. lp
5. network
6. storage array
If you want to select more than one, please separate the number by comma (.).

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-6,q,h,t):
```

## Collecting System Information

### **CUI** Operation

1. From the Collecting System Information menu, select the system information to be collected.
2. Enter the following information in the menu:
  - Collection Destination  
Specify the name to the collection destination file with the full path.  
The file is created in tar format and is compressed with the “compress” command.

## 3.4.8 Hot Swapping Guide

This section describes how to operate the Hot Swapping Guide menus.



Note

The CE performs the hardware maintenance.

## Displaying the Hot Swapping Guide menu

### **CUI** Operation

1. From the CUI menu, select [Hot Swapping Guide].  
The Hot Swapping Guide menu opens.

## Hot Swapping Guide

1. The Faulty Hard Disk Drive Replacement (Hot Swap)
2. Preventive Maintenance of the Hard Disk Drive (Hot Swap)
3. Include the Hard Disk Drive after the Cold Maintenance
4. Power Supply Unit of Main Cabinet
5. Fan Unit of Main Cabinet
6. Power Supply Unit of Expansion Cabinet
7. Fan Unit of Expansion Cabinet

q:Quit b:Back to previous menu t:Go to top menu h:Help

-----  
Select. (1-6,q,b,t):

**Note**

The menu items depend on the main unit model.  
Moreover, there are cases where displayed menu items may not be available for use.

**See**

See Section 3.4.2, "Main Unit Models and Available Menus."

**Note**

If Machine Administration ends abnormally during disk hot swapping, perform the hot swapping operation again from the beginning.

### 3.4.8.1 The Faulty Hard Disk Drive Replacement (Hot Swap)/Preventive Maintenance of the Hard Disk Drive (Hot Swap)/Include the Hard Disk Drive after the Cold Maintenance

See Appendix B, "Disk Drive Replacement," for information on how to use the menu for displaying the disk drive swapping guidance information.

**Note**

The CE replaces the hard disk.

## 3.4.9 UPS Setup

This section describes how to operate the UPS Setup menus.

## Displaying the UPS Setup menu

### **CUI** Operation

1. From the CUI menu, select [UPS Setup].

The UPS Setup menu opens.

```
UPS setting menu

  1. Setting waiting time for shutdown at power failure

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1,q,b,t,h):
```

### 3.4.9.1 Setting waiting time for shutdown at power failure

This section describes how to perform the Setting Waiting Time for Shutdown at Power Failure operation.

### **CUI** Operation

1. From the UPS setting menu, select [Setting waiting time for shutdown at power failure].

The current wait time appears.

2. Specify the waiting time for shutdown at power failure.

Specify this value in the range of 0 to 9999 (seconds).

The default is "10 seconds."

## 3.4.10 Setting Up and Testing the AP-Net

This section describes how to perform the Setting Up and Testing the AP-Net operation.



Note

The CE performs Setting Up and Testing the AP-Net.

## Displaying Option Menu

### **CUI** Operation

1. From the CUI menu, select [Option Menu].

The Option menu opens.

```
Option Menu

  1. Setting Up and Testing the AP-Net
  2. Disk Firmware Administrator

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t):
```

**Note**

The menu items displayed depend on the main unit model.  
Moreover, there are cases where displayed menu items may not be available for use.  
The menu items differ between the CUI and GUI menus.

**See**

See Section 3.4.2, "Main Unit Models and Available Menus."

## Setting up the AP-Net

### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
3. Select [Initialize and test of AP-Net case] from the menu.
4. From this point, perform operations according to the menu.
5. Check the setting.  
If an error is detected, perform the setting again.

## Testing AP-Net connection

### **CUI** Operation

1. From the Option Menu, select [Setting Up and Testing the AP-Net].  
The AP-Net menu opens. (This menu is not included in the Machine Administration menu.)
2. Select the following items from the menu:
  - When the version number of the AP-Net basic software is 1.0.2:  
Select [Connection and test of AP-Net case].
  - When the version number of the AP-Net basic software is 1.1:  
Select [Initial setup].
3. From the menu, select [Connection test of MSC-RTC].
4. From this point, perform operations according to the menu.  
When the AP-Net connection test finishes, [All tests ended (return)] appears.

### 3.4.11 Firmware Administration



Note

The following operation should only be performed by a certified service engineer.

The following describes how to operate the Disk Firmware Administrator menus.

#### Displaying the Disk Firmware Administrator menu

##### **CUI** Operation

1. From the CUI menu, select [Option Menu].  
The Option menu opens.
2. From the Option menu, select [Disk Firmware Administrator].  
The Disk Firmware Administrator menu opens.

```
Disk Firmware Administrator

1. The indication of the update applicable disk list
2. The indication of update log
3. The practice of update firmware(use media:CD-ROM)
4. The practice of update firmware(use media:Remote host)

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-4,d,q,b,t,h):
```

#### 3.4.11.1 Disk Firmware Administrator

This section describes how to operate the Disk Firmware Administrator function.

Disk firmware is distributed as HCP data together with the main unit firmware, and is automatically registered concurrently with registration of the main unit firmware. However, after the registration, the disk firmware and main unit firmware are separately managed. The registered main unit firmware can be deleted from the menu; however, the registered disk firmware cannot be deleted.



Note

The following operation should only be performed by a certified service engineer.

#### The Indication of the Update Applicable Disk List

##### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The indication of the update applicable disk list].  
A list of disks registered as subject to firmware updating by Machine Administration is displayed

from among the disks currently connected.

The following items are displayed:

|                      |   |                                                                                                   |
|----------------------|---|---------------------------------------------------------------------------------------------------|
| Disk name            | : | Disk instance name                                                                                |
| Firmware Revision No | : | Disk firmware revision number                                                                     |
| Status               | : | Current disk status<br>ACT (in use)<br>LOCK (maintenance in progress)<br>STOP (unused, revisable) |
| Serial No            | : | Disk serial number                                                                                |
| VendorID             | : | Disk vendor ID                                                                                    |
| ProductID            | : | Disk product ID                                                                                   |

## The Indication of Update Log

### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The indication of update log].

The update history of the disk firmware appears.

The following items are displayed:

|                        |   |                                                                                                                       |
|------------------------|---|-----------------------------------------------------------------------------------------------------------------------|
| Time-Stamp             | : | Year, month, day, and time                                                                                            |
| Revision Result        | : | Revision result (success or failure)                                                                                  |
| Disk Name              | : | Disk instance name. An item in ( ) is a logical name.                                                                 |
| Previous Revision No   | : | Previous revision number. If revision fails, the current revision number is used.                                     |
| Revision Result Mark   | : | -> (Displayed for successful revision)<br>-* (Displayed for unsuccessful revision)<br>-? (Displayed for a disk error) |
| Applicable Revision No | : | Revision number to be applied this time. If revision fails, the current revision number is used.                      |
| Serial No              | : | Disk serial number                                                                                                    |
| VendorID               | : | Disk vendor ID                                                                                                        |
| ProductID              | : | Disk product ID                                                                                                       |
| Remarks                | : | Error code                                                                                                            |

## The Practice of Update Firmware (Use Media:CD-ROM)

### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The practice of update firmware (use media:CD-ROM)].
2. Perform operations according to the menu.  
Disk revision is performed.

## The Practice of Update Firmware (Use Media:Remote host)

### **CUI** Operation

1. From the Disk Firmware Administrator menu, select [The practice of update firmware (use media:Remote host)].
2. Perform the required operations according to the menu.  
Disk revision is performed.

### 3.4.12 Diagnostic Program

This section describes how to operate the Diagnostic Program menu.

#### Displaying the Diagnostic Program menu (for the CUI menu)

##### **CUI** Operation

1. From the CUI menu, select [Diagnostic Program].  
The Diagnostic Program menu opens.

```
Diagnostic Program

1. Executed from this terminal
2. Execution from the X terminal specified by the DISPLAY environment
   variable

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-2,q,b,t,h):
```

#### Executed From This Terminal (for the CUI menu)

##### **CUI** Operation

1. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Executed from this terminal].  
FJVTS is started as the diagnostic program.
2. From the FJVTS screen, select [START].  
Diagnosis starts.
3. After diagnosis finishes, select [Quit UI and Kernel] from [quit] of the FJVTS screen.
4. Press the [Return] key.  
The original screen reappears.

#### Execution From the X Terminal Specified by the DISPLAY Environment Variable (for the CUI menu)

##### **CUI** Operation

1. Specify the display name used by the diagnostic program during startup in the environment variable.
2. From the FJVTS Diagnostic Program menu or Diagnostic Program menu, select [Execution from the X terminal specified by the DISPLAY environment variable].  
FJVTS is started as the diagnostic program.
3. From the FJVTS screen, select [START].  
Diagnosis starts.
4. After diagnosis finishes, select [Quit UI and kernel] from [quit] of the FJVTS screen.
5. Press the [Return] key.  
The original screen reappears.



See

For information on the method of using FJVTS, see the following manuals:

"SunVTS User's Manual"

"SunVTS Test Reference Manual"

"FJVTS Test Reference Manual"



#### Note

The following notes must be observed when Machine Administration executes the diagnostic program (FJVTS):

- For execution with the OpenWindows interface from the GUI menu, select the FJVTS Diagnostic Program menu or Diagnostic Program menu of Machine Administration and then specify the display destination DISPLAY according to the screen.

At the display destination DISPLAY, set the X-Windows access permissions in advance using the xhost command.

- For execution with the OpenWindows interface from the CUI menu, specify the display destination DISPLAY in the environment variable before starting Machine Administration.

Example: `setenv DISPLAY HOST_NAME:0`

- When FJVTS is executed from the GUI menu, the user interface may fail to start due to an X environment setting error (for example, because xhost was not specified). (Keep this in mind because, if this happens, no error message may appear in some cases.) However, no problem will occur if the X environment is set up later and FJVTS is re-executed.

### 3.4.13 Remote Setup menu

This section describes how to operate the Remote Setup menu.

Service for this function is provided free of charge within the warranty period.

A separate contract is required after the warranty has expired. For more information about the warranty period and the contract, contact your Fujitsu sales representative.

#### Starting the Remote Maintenance Setting menu (for a main unit for which connection is set up with SMC)

##### **CUI** Operation

1. From the CUI menu, select [Remote Setup].

The Remote Maintenance Setting menu opens.

```
Remote maintenance setting menu

  1. Software investigation information collection

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1,q,b,t,h):
```

2. From the Remote Maintenance setting menu, select [Software investigation information collection].
3. Perform the required operations according to the menu.



See

For information on REMCS Agent, see the following manual:

*REMCS Agent Operator's Guide*

### 3.4.14 Setting Management Server Logging

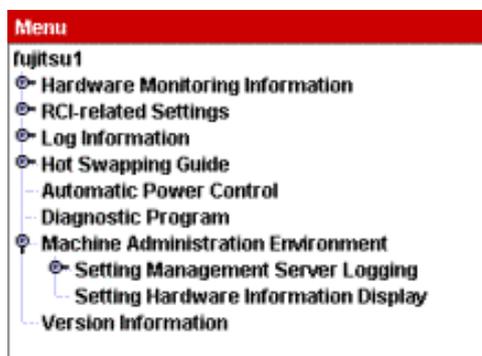
This section describes how to operate the Setting Management Server Logging menu.

#### Displaying the GUI menu

##### GUI Operation

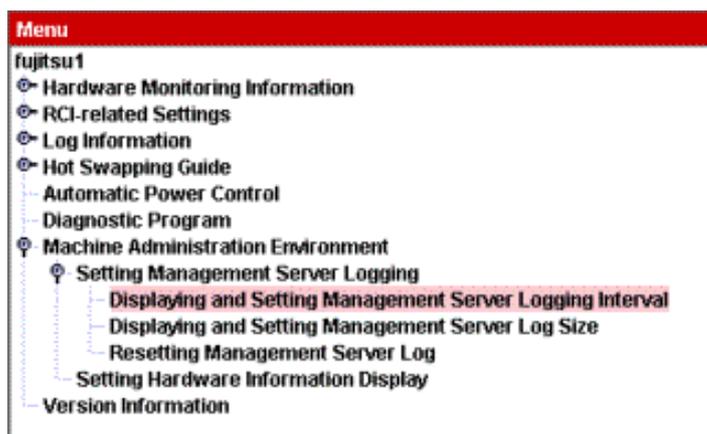
1. Click [Machine Administration Environment] on the GUI menu.

The next level of the menu appears.



2. Click [Setting Management Server Logging] on the GUI menu.

The next level of the menu appears.

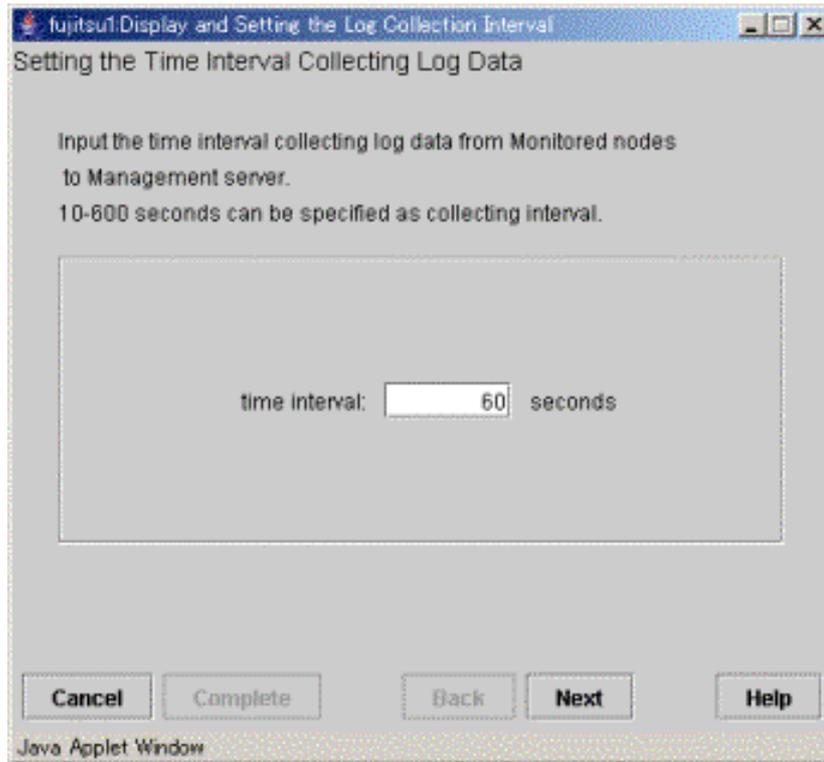


#### Displaying and Setting Management Server Logging Interval

##### GUI Operation

1. Click [Displaying and Setting Management Server Logging Interval] on the GUI menu.

The [Displaying and Setting Management Server Logging Interval] screen appears.

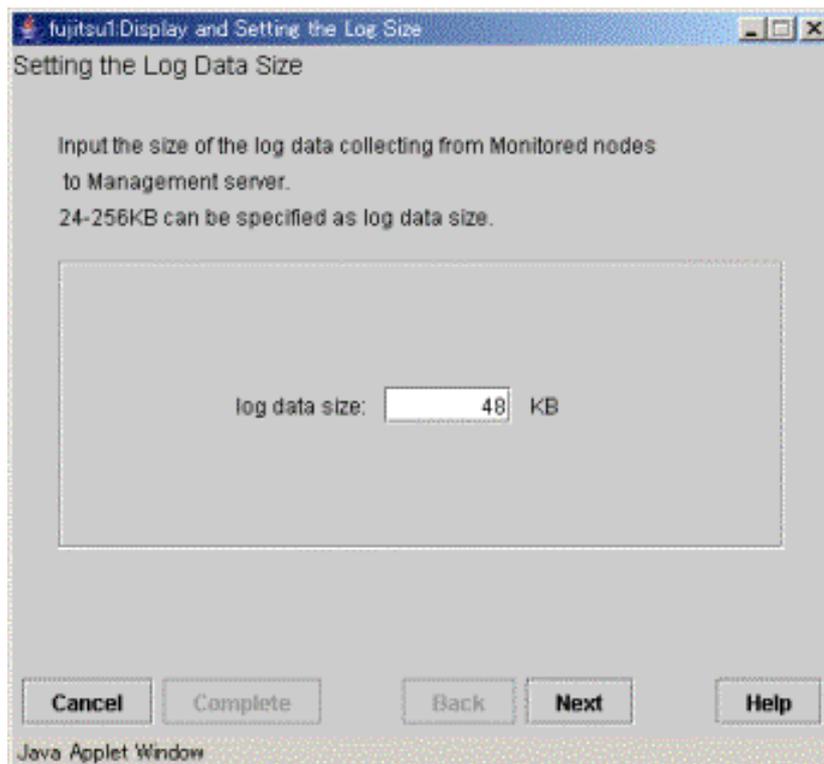


2. To change [time interval], enter a value.  
Specify the time interval for collecting logs in the range of 10 to 600 seconds.  
The default is "60 seconds."
3. Click the [Complete] button.

### Display and Setting the Log Size

#### **GUI** Operation

1. Click [Display and Setting the Log Size] on the GUI menu.  
The [Display and Setting the Log Size] screen appears.

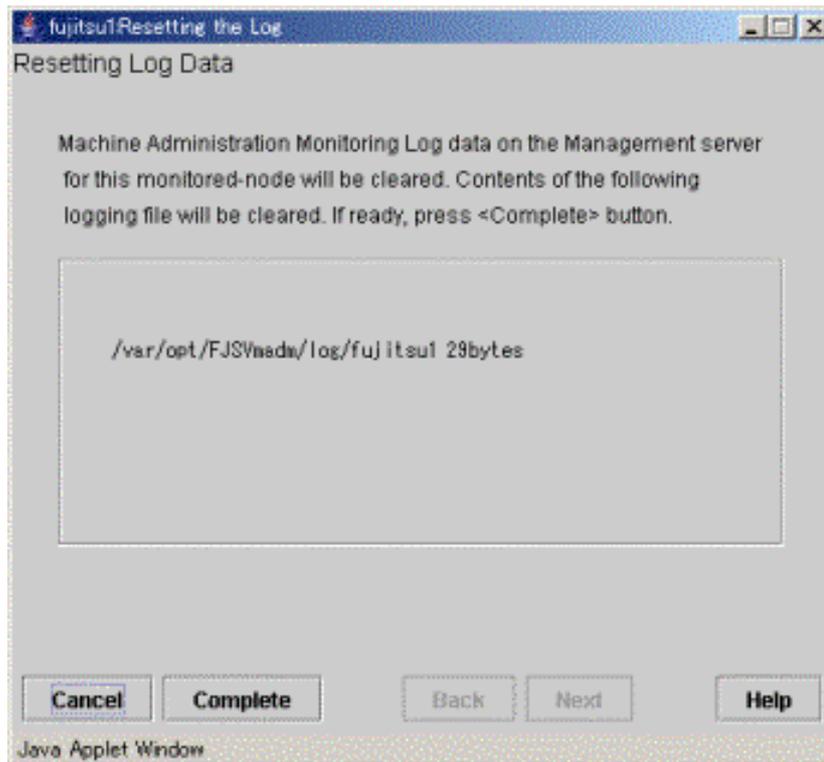


2. To change [log data size], enter a size.  
Specify the size in the range of 24 to 256 KB.  
The default is 48 KB.
3. Click the [Complete] button.

### Resetting the Log

#### **GUI** Operation

1. Click [Resetting the Log] in the GUI menu.  
The [Resetting the Log] screen appears.



2. Click the [Complete] button.

The machine administration monitoring log on the management server is cleared.



#### Note

To use the same IP host name after replacing the device of the node to be monitored, clear the log. If the log is not cleared, the log information after device replacement is added to the machine administration monitoring log used before device replacement.

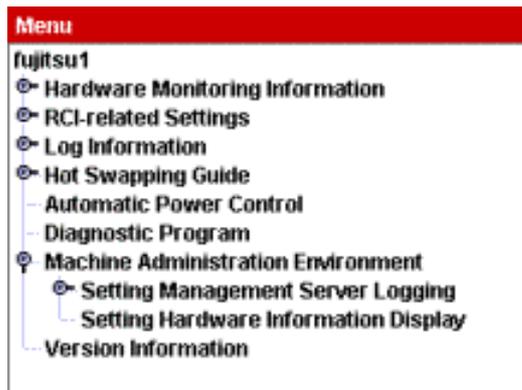
### 3.4.15 Hardware Information Display Settings

This section describes how to make the Hardware Information Display settings.

#### Displaying the GUI menu

##### GUI Operation

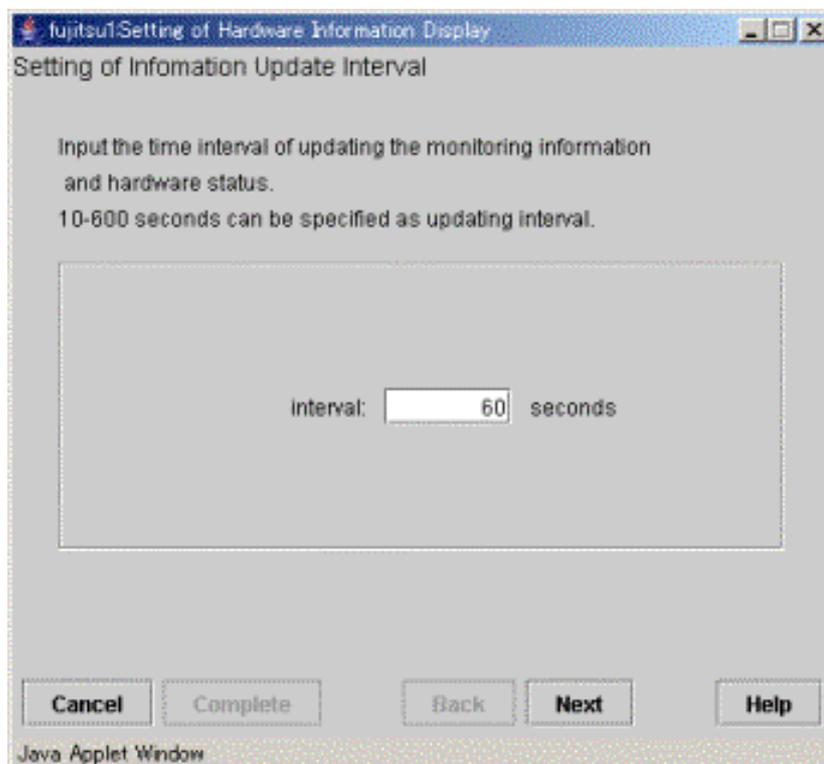
1. Click [Machine Administration Environment] in the GUI menu.  
The next menu level appears.



### Making the Hardware Information Display settings

#### GUI Operation

1. Click [Hardware Information Display Settings] in the GUI menu.  
The Hardware Information Display Settings menu opens.



2. To change the [interval] setting used for updating hardware information, enter a value.  
Specify the interval for updating hardware information in the range of 10 to 600 seconds.  
The default is "60 seconds."
3. Click the [Complete] button.

### 3.4.16 Version Information

This section describes how to perform the Version Information referencing operation.

**CUI** Operation

1. From the CUI menu, select [Version Information].

Version Information appears.

<Example>

```
Version: 2.1.1,REV=2003.11.1800      . . . . . (1)
Patches:
  No patches                          . . . . . (2)
Hit return key
```

- (1) Package version of machine administration
- (2) Information of patches applied to machine administration



---

## Chapter 4 Command Reference

This Chapter contains information common to all models.

Machine administration provides commands supporting hardware-dependant maintenance tasks for maintenance of the main unit. Some of these commands cannot be used on some models of the main unit.

**Overview of commands and availability of contextual menu**

The following table shows the main unit model names corresponding to the main units A to F that are indicated next to the commands listed below.

| Main unit | Main unit model name                                                 |
|-----------|----------------------------------------------------------------------|
| A         | PRIMEPOWER1                                                          |
| B         | PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R |
| C         | PRIMEPOWER250/450                                                    |
| D         | PRIMEPOWER650/850                                                    |
| E         | PRIMEPOWER800/1000/2000, GP7000F model 1000/2000                     |
| F         | PRIMEPOWER900/1500/2500/HPC2500                                      |

The meanings of the symbols that appear in the "availability of contextual menu" column of the subsequent table are as follows:

Y : A contextual menu exists.

\*1: A contextual menu exists, but some of its functions are slightly different.

\*2: A contextual menu exists, but the display of the menu varies depending on the model.

N : No contextual menu exists.

The following table outlines each command and the availability of the contextual menu.

| Command name    | Overview (name)                                                                                          | Availability of contextual menu<br>[For information on operation, see: ] |             |             |            |
|-----------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------|-------------|------------|
|                 |                                                                                                          | A/B                                                                      | C           | D/F         | E          |
| addevhost (1M)  | Command for setting the host name of the administration LAN                                              | N                                                                        | N           | N           | N          |
| apcscancel (1M) | Interrupts power-off by automatic power control                                                          | N                                                                        | N           | N           | N          |
| apcschmod (1M)  | Sets and displays whether to use cron for implementation of automatic power control.                     | N                                                                        | N           | N           | N          |
| apcsflush (1M)  | Reflects the system schedule of each partition on the main unit.                                         | N                                                                        | N           | N           | N          |
| apcsset (1M)    | Starts or ends automatic power control, or sets schedule and operation information about power recovery. | *2<br>3.1.9                                                              | *2<br>3.2.9 | *2<br>3.3.9 | -          |
| cmdevsnd (1M)   | System console communication control command                                                             | N                                                                        | N           | N           | N          |
| diskswap (1M)   | Hot swappable disk display/setting command                                                               | N                                                                        | N           | N           | N          |
| hcpversion (1M) | Displays HCP version.                                                                                    | N                                                                        | N           | N           | N          |
| hrdconf (1M)    | Hardware configuration display command                                                                   | Y<br>3.1.5                                                               | Y<br>3.2.5  | Y<br>3.3.5  | Y<br>3.4.5 |
| inst2comp (1M)  | Physical slot name change command                                                                        | N                                                                        | N           | N           | N          |

| Command name       | Overview (name)                                             | Availability of contextual menu<br>[For information on operation, see: ] |                           |               |               |
|--------------------|-------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------|---------------|---------------|
|                    |                                                             | A/B                                                                      | C                         | D/F           | E             |
| madmin (1M)        | Machine administration CUI menu start command               | N<br>3.1.1.1                                                             | N<br>3.2.1.1              | N<br>3.3.1.1  | N<br>3.4.1.1  |
| nocheckdev (1M)    | Regular monitoring device exclusion command                 | N                                                                        | N                         | N             | N             |
| postphp (1M)       | PCI Hot Plug post-processing command                        | N                                                                        | N                         | N             | N             |
| prephp (1M)        | PCI Hot Plug pre-processing command                         | N                                                                        | N                         | N             | N             |
| prterrlog (1M)     | SCF error log display command                               | Y<br>3.1.7.6                                                             | Y<br>3.4.7.2              | N             | N             |
| prtadmlog (1M)     | Machine administration monitoring log display command       | Y<br>3.1.7.5                                                             | Y<br>3.2.7.2              | N             | Y<br>3.4.7.4  |
| prtmmsglog (1M)    | Message log display command                                 | Y<br>3.1.7.1                                                             | Y<br>3.2.7.1              | N             | Y<br>3.4.7.1  |
| prtpwrlog (1M)     | Power log display command                                   | Y<br>3.1.7.10                                                            | Y<br>3.2.7.3              | Y<br>3.3.7.3  | N             |
| remcsmain (1M)     | Executes registration with the REMCS Center.                | Y<br>3.1.14                                                              | Y<br>3.2.16               | N             | Y<br>3.4.13   |
| resethardstat (1M) | Machine administration monitoring information reset command | *1<br>3.1.6                                                              | *1<br>3.2.6               | *1<br>3.3.6   | *1<br>3.4.6   |
| savelogs (1M)      | Saves the hardware log information.                         | *1<br>3.1.7.12                                                           | *1<br>3.2.7.5             | *1<br>3.3.7.6 | *1<br>3.4.7.5 |
| scfconsole (1M)    | Configures XSCF network and console.                        | N                                                                        | Y<br>3.2.10.1<br>3.2.10.3 | N             | N             |
| scfhttp (1M)       | Configures XSCF http service.                               | N                                                                        | Y<br>3.2.10.4             | N             | N             |
| scfmail (1M)       | Configures XSCF mail report.                                | N                                                                        | Y<br>3.2.10.6             | N             | N             |
| scfreset (1M)      | Reboots XSCF.                                               | N                                                                        | Y<br>3.2.10.1             | N             | N             |
| scfshkey (1M)      | Sets and displays the XSCF shell login keyword.             | N                                                                        | N                         | N             | N             |
| scfsnmp (1M)       | Configures XSCF SNMP service.                               | N                                                                        | Y<br>3.2.10.5             | N             | N             |
| scfstat (1M)       | Displays the various settings of XSCF.                      | N                                                                        | Y<br>3.2.10               | N             | N             |
| scfuser (1M)       | Operates XSCF user account.                                 | N                                                                        | Y<br>3.2.10.2             | N             | N             |
| scslset (1M)       | System console setting command                              | N                                                                        | N                         | N             | N             |
| scslspareset (1M)  | Automatic redundancy system console setting command         | N                                                                        | N                         | N             | N             |
| setbattlife (1M)   | Battery life monitoring display/setting command             | Y<br>3.1.6.1                                                             | Y<br>3.2.6.1              | Y<br>3.3.6.1  | N             |

| Command name        | Overview (name)                                                                               | Availability of contextual menu<br>[For information on operation, see: ] |               |               |   |
|---------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------|---------------|---|
|                     |                                                                                               | A/B                                                                      | C             | D/F           | E |
| setexrdy (1M)       | Command for displaying or setting external power control device EXRDY monitoring-timeout time | Y<br>3.1.10.5                                                            | Y<br>3.2.12.1 | Y<br>3.3.10.5 | N |
| setexwait (1M)      | External equipment wait time display/setting command                                          | Y<br>3.1.10.5                                                            | Y<br>3.2.12.1 | Y<br>3.3.10.5 | N |
| setfandly (1M)      | Fan stop delay time display/setting command                                                   | N                                                                        | N             | N             | N |
| setfanlife (1M)     | Fan life monitoring display/setting command                                                   | Y<br>3.1.6.2                                                             | Y<br>3.2.6.3  | N             | N |
| setpwrmode (1M)     | Interlocking mode setting command                                                             | N                                                                        | N             | N             | N |
| setrci (1M)         | RCI-related setting command                                                                   | Y<br>3.1.10                                                              | Y<br>3.2.11   | Y<br>3.4.11   | N |
| setups (1M)         | Sets the power recovery time.                                                                 | N                                                                        | N             | N             | N |
| updateunitinfo (1M) | Configuration information update command                                                      | N                                                                        | N             | N             | N |

### Main unit models and available commands

The following table shows the main unit model names corresponding to main units A to F that are listed in the command list.

| Main unit | Main unit model name                                                 |
|-----------|----------------------------------------------------------------------|
| A         | PRIMEPOWER1                                                          |
| B         | PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R |
| C         | PRIMEPOWER250/450                                                    |
| D         | PRIMEPOWER650/850                                                    |
| E         | PRIMEPOWER800/1000/2000, GP7000F model 1000/2000                     |
| F         | PRIMEPOWER900/1500/2500/HPC2500                                      |

The following shows the meaning of symbols that appear in the column for main unit A to F.

Y : Can be used.

N : Cannot be used.

\*1: For details of the commands, see the *System Console Software User's Guide*.

The following table shows the main unit models and availability of the commands.

| Command name   | Main unit |   |   |   |           |           | See: |
|----------------|-----------|---|---|---|-----------|-----------|------|
|                | A         | B | C | D | E         | F         |      |
| addevhost (1M) | N         | N | N | N | Y         | Y         | 4.1  |
| apscancel (1M) | Y         | Y | Y | Y | N         | N         | 4.2  |
| apschmod (1M)  | Y         | Y | Y | Y | N<br>(*1) | N<br>(*1) | 4.3  |
| apcsflush (1M) | Y         | Y | Y | Y | N<br>(*1) | N<br>(*1) | 4.4  |

| Command name        | Main unit |   |   |   |           |           | See: |
|---------------------|-----------|---|---|---|-----------|-----------|------|
|                     | A         | B | C | D | E         | F         |      |
| apcsset (1M)        | Y         | Y | Y | Y | N<br>(*1) | N<br>(*1) | 4.5  |
| cmdevsnd (1M)       | N         | N | N | N | Y         | Y         | 4.6  |
| diskswap (1M)       | Y         | Y | Y | Y | Y         | Y         | 4.7  |
| hcpversion (1M)     | N         | N | Y | Y | N         | N         | 4.8  |
| hrdconf (1M)        | Y         | Y | Y | Y | Y         | Y         | 4.9  |
| inst2comp (1M)      | N         | N | Y | Y | N         | Y         | 4.10 |
| madmin (1M)         | Y         | Y | Y | Y | Y         | Y         | 4.11 |
| nocheckdev (1M)     | Y         | Y | Y | Y | Y         | Y         | 4.12 |
| postphp (1M)        | N         | N | Y | Y | N         | Y         | 4.13 |
| prephp (1M)         | N         | N | Y | Y | N         | Y         | 4.14 |
| prtterrlog (1M)     | Y         | Y | Y | Y | N         | N         | 4.15 |
| ptmadmlog (1M)      | Y         | Y | Y | Y | Y         | Y         | 4.16 |
| prtmsglog (1M)      | Y         | Y | Y | Y | Y         | Y         | 4.17 |
| prtpwrlog (1M)      | Y         | Y | Y | Y | N         | N         | 4.18 |
| remesmain (1M)      | N         | N | Y | Y | N         | N         | 4.19 |
| resethardstat (1M)  | Y         | Y | Y | Y | Y         | Y         | 4.20 |
| savelogs (1M)       | Y         | Y | Y | Y | Y         | Y         | 4.21 |
| scfconsole (1M)     | N         | N | Y | N | N         | N         | 4.22 |
| scfhttp (1M)        | N         | N | Y | N | N         | N         | 4.23 |
| scfmail (1M)        | N         | N | Y | N | N         | N         | 4.24 |
| scfreset (1M)       | N         | N | Y | N | N         | N         | 4.25 |
| scfshkey (1M)       | N         | N | Y | N | N         | N         | 4.26 |
| scfsnmp (1M)        | N         | N | Y | N | N         | N         | 4.27 |
| scfstat (1M)        | N         | N | Y | N | N         | N         | 4.28 |
| scfuser (1M)        | N         | N | Y | N | N         | N         | 4.29 |
| scslset (1M)        | N         | N | N | N | Y         | Y         | 4.30 |
| scslspareset (1M)   | N         | N | N | N | Y         | Y         | 4.31 |
| setbattlife (1M)    | Y         | Y | Y | Y | N         | N         | 4.32 |
| setexrdy (1M)       | N         | Y | Y | Y | N         | N         | 4.33 |
| setexwait (1M)      | N         | Y | Y | Y | N         | N         | 4.34 |
| setfandly (1M)      | N         | N | Y | N | N         | N         | 4.35 |
| setfanlife (1M)     | Y         | Y | Y | N | N         | N         | 4.36 |
| setpwrmode (1M)     | N         | Y | Y | Y | Y         | N         | 4.37 |
| setrci (1M)         | N         | Y | Y | Y | N         | N         | 4.38 |
| setups (1M)         | Y         | Y | Y | N | N         | N         | 4.39 |
| updateunitinfo (1M) | N         | N | Y | Y | N         | Y         | 4.40 |

\*1 For details of the commands, see the *System Console Software User's Guide*.



**Note**

The `chgdisk (1M)` command must not be used in the command line.

For hot swapping of a disk, use the `madmin (1M)` command to open the machine administration menu.



### Information

- Regarding the “(IM)” notation accompanying the described command names (IM) indicates that the command is provided for maintenance and management purposes.  
For machine administration, use only the commands for maintenance.

## 4.1 addevhost (1M)

### Name

addevhost - Command for setting the host name of the administration LAN

### Format

/usr/sbin/FJSMadm/addevhost <administration-lan-host-name>

### Function

The addevhost command sets the host name of the administration LAN.

For connection with SMC using a setting other than hme0, specify the host name of the administration LAN using this command.

Specify the host name of the administration LAN in <administration-lan-host-name>.

### End status

The end status can be:

0: Normal end

Other than 0: Error



### Note

- If the following message appears on startup of a partition, use this command to specify the host name of the administration LAN.  
My IP is not found.

### Related item

scslset (1M), scslspareset (1M)

## 4.2 apccancel (1M)

### Name

apccancel - Interrupts power-off by automatic power control.

### Format

/opt/FJSPvaps/sbin/apccancel

### Function

The apccancel command interrupts normal-mode power-off processing in progress.

Power-off processing in normal mode means to start shutdown processing three minutes after the display of a warning message about power-off.

Specify "norm" as the type of power-off processing.

Example: # apccancel -a -s 0900 -e 2300 -t norm

# apccancel -a -s 0900 -e 2300

### End status

The end status can be:

0: Normal end

Other than 0: Abnormal end

## 4.3 apcschmod (1M)

### Name

apcschmod - Sets and displays whether to use cron for implementation of automatic power control.

### Format

/opt/FJSVapcs/sbin/apcschmod [{cron | daemon}]

### Function

The apcschmod command sets whether to use cron for implementation of automatic power control.

The default is "Use cron."

If you select daemon, the system uses the special daemon for automatic power control.

If you omit the option, the current settings are displayed.

### Option

If you specify cron, the system uses cron to implement the automatic power control function.

The default is "Use cron."

If you specify daemon, the system uses the daemon provided in the package of automatic power control, instead of cron, for implementation of the automatic power control function.

If you omit the option, the current settings are displayed.

### End status

The end status can be:

0: Normal end

Other than 0: Abnormal end

## 4.4 apcsflush (1M)

### Name

apcsflush - Reflects the system schedule of each partition on the main unit.

### Format

/opt/FJSVapcs/sbin/apcsflush

### Function

The apcsflush command is to be executed on each partition of the main unit. It reflects on the partition the system schedule set from the system console.

If the power is already being supplied to the main unit when a system schedule is added or deleted, execute the system schedule reflection command (/opt/FJSVapcs/sbin/apcsflush) from the console of each partition.

### End status

The end status can be:

0: Normal end

Other than 0: Abnormal end

## 4.5 apcsset (1M)

### Name

apcsset - Starts or ends automatic power control, or sets schedule and operation information about power recovery.

### Format

```
/opt/FJSVapcs/sbin/apcsset -S|-T
/opt/FJSVapcs/sbin/apcsset -l [-f] [-n]
/opt/FJSVapcs/sbin/apcsset -L [days] [-f]
/opt/FJSVapcs/sbin/apcsset -a {[-s time][-e time -t type]} schedule_date
/opt/FJSVapcs/sbin/apcsset -a -h yymmdd
/opt/FJSVapcs/sbin/apcsset -d {[-s time][-e time -t type]} schedule_date
/opt/FJSVapcs/sbin/apcsset -d -h yymmdd
/opt/FJSVapcs/sbin/apcsset -d -n num[,num*] [-y]
/opt/FJSVapcs/sbin/apcsset -D
/opt/FJSVapcs/sbin/apcsset -P [mode]
/opt/FJSVapcs/sbin/apcsset -F [mode [time] ]
/opt/FJSVapcs/sbin/apcsset -C
```

### Function

Starts or ends power control according to the set schedule.

Also displays or sets operation information about power recovery.

The automatic power control supplies power to the machine at the specified time (-s time).

This function shuts off the power supply following the specified power-off procedure (-t type) at the specified time (-e time).

Information about power recovery includes the power recovery mode. The power recovery mode is for determining the operation on power recovery after power supply to the main unit in operation has been shut off by a cause such as a power failure.



See

See the following manual for information about automatic power control of the GP7000F M1000/M2000 and PRIMEPOWER 800/1000/2000.  
System Console Software User's Guide

### Option

The options are:

-S

Starts automatic power control.

-T

Stops automatic power control.

-l [-f] [-n]

Displays the status (start/stop) of automatic power control and the set schedule information.

Specifying the -f option displays the year in four digits.

By default, only the last two digits are displayed (ex: 00 for 2000).

Specifying the -n option displays the schedule information together with the item numbers. These item numbers are used for deletion of schedule information.

The details are described in the explanation of the -d option.

-L *days* [-f]

Displays the planned execution of automatic power control after the current time.

In *days*, specify the number of days for which you want to display information. If you omit *days*, the system displays the information for seven days. Specifying the *-f* option displays the year in four digits. By default, only the last two digits are displayed (ex: 00 for 2000).

**-a**

Adds an automatic power control schedule. Adding a schedule after the number of schedules reaches 1024 results in an error.

**-d**

Deletes an automatic power control schedule.

There are two ways to specify a schedule to be deleted.

One is to specify the same option (*schedule\_date*) you specified when you added the schedule. The other is to use the *-n [num]* option to specify the item number of the schedule that was given when you displayed the schedule information by specifying the *-n* option. When you specify the *-n [num]* option, a confirmation message appears asking whether you really want to delete this schedule. If you do not want this confirmation message displayed, specify the *-y* option.

**-D**

Deletes all automatic power control schedules that are currently set.

**-s time**

Specify the power supply time. The format of time is HHMM.

Specify the value of HH within the range of 00 - 23, and MM within the range of 00 - 59.

**-e time**

Specify the power-off time. The format of time is HHMM.

Specify the value of HH within the range of 00 - 23, and MM within the range of 00 - 59.

**-t type**

Specify the type of power-off processing. The following two types can be specified as *type*.

The default setting is "norm". Specifying this option without specifying "-e" results in an error.

**norm**

Outputs a warning on the display and starts power-off processing three minutes after such display.

Executing the *apscancel* command within these three minutes interrupts the power-off processing.



**See**

For information on the interruption of power-off processing, see the explanation of *apscancel(1M)*.

**force**

Starts power-off processing immediately.

**schedule\_date**

Sets an automatic power control schedule.

**-c yymmdd|mm1dd1-mm2dd2|dd1-dd2**

Specify the dates of power-on and power-off for a specified day or days, or on a monthly basis.

If you specify this, you cannot specify "-w".

***yymmdd***

Specify the date of power-on or power-off for a specified day.

If *-r* is specified when the date is specified in this format, an error occurs.

***mm1dd1-mm2dd2***

Specify the date of power-on or power-off on a daily basis (mm1 dd1 - mm2dd2).

If -r is specified when the date is specified in this format, an error occurs.

***dd1-dd2***

Specify the date of power-on or power-off on a monthly basis (dd1 - dd2).

Omitting "-r" makes the system assume a schedule from dd1 to dd2 of the month when you execute the command.

-w SUN,MON,....

Specify the day of the week when the schedule is executed every week.

Specify the day of the week in the following format.

For this specification, you must specify "-r".

You cannot specify "-c".

- Sunday: SUN or sun
- Monday: MON or mon
- Tuesday: TUE or tue
- Wednesday: WED or wed
- Thursday: THU or thu
- Friday: FRI or fri
- Saturday: SAT or sat

-r mm1-mm2

Specify the month (period) when the schedule is executed.

The system executes the schedule from mm1 to mm2.

-h yymmdd

Specify the date of a holiday (when power-on/off is not performed).

-F [mode [time] ]

Forcibly shuts off the power supply.

Shutdown processing starts according to the shutdown schedule for automatic power control. Even if some problem like a hang-up of the operating system interrupts this processing in progress, the operating system will be shut down.

[mode]

enable

Enables forced power-off.

disable

Disables forced power-off.

The default is "disable".

[time]

Specify the timeout time in minutes within the range of 10 - 255 (minutes). The default is 10 minutes.

If you omit the option of [mode [time]], the current settings of forced power-off are displayed.

-P [mode]

Displays or sets the power recovery mode.

If you do not specify the mode, the system displays the current power recovery mode.

You can specify one mode out of the following three:

on

After a power failure occurs and the power supply to the main unit is shut off during its operation, power is automatically supplied when the power

recovers.

off

After a power failure occurs and the power supply to the main unit is shut off during its operation, power is not automatically supplied when the power recovers. You have to supply power manually or by using the automatic power control function.

auto

After a power failure occurs and the power supply to the main unit is shut off during its operation, power is automatically supplied when the power recovers within the operating time.

The operating time is the period of time between the power-on time and power-off time specified in the automatic power control schedule.

-C

Copies the settings for automatic power control set on the node where the `apcsset` command is executed, to all the other nodes in the cluster system established by `SynfinityCLUSTER`.

### End status

The end status can be:

- 0: Normal end
- 1: Error in option specification
- 2: No root qualification
- 3: Main unit or hardware error
- 4: An existing schedule is added again or nonexistent schedule is deleted.
- 5: Multiple commands are executed at the same time.
- 6: Operation not applicable to the current status (start/stop).
- 7: Specified time or date is inconsistent (nonexistent or equivocal).
- 8: A schedule is added exceeding 1024.



### Note

- You cannot use this command unless you have root permission. You cannot execute multiple commands at the same time, either.
- To add or delete a schedule, you have to stop automatic power control.
- If you specify a value not included in the ranges of 00 - 37 and 70 - 99 as *yy* for *yymmdd* in the specification of a schedule, an error results.  
If you specify a value from 00 to 37 in *yy*, the year is in the 2000s.  
If you specify a value from 70 to 99 in *yy*, the year is in the 1900s.  
Example: 92 means 1992. 21 means 2021.
- If the date is specified in the *yymmdd* format, specifying a nonexistent date (February 30, for example) results in an error.
- If the date is specified in a format other than *yymmdd*, no error results if the specified month is 01 - 12 and specified date is 01 - 31.
- Schedule setting is implemented only for the existing dates within the specified range.
- On a holiday set by the `-h` option, all the other schedule settings are ignored and power-on/off is not performed.
- On a date with specific day settings specified by "`-c yymmdd`", all schedule settings other than the setting for holiday and the settings for the specified date are ignored.  
Except for holidays, you have to specify either the power-on time or power-off time.
- In countries where daylight saving time is used, there are nonexistent times or equivocal times at changeover from the standard time to daylight saving time or vice versa. Note this fact, and

carefully specify the power-on time and power-off time to avoid inconsistencies.

- You cannot set a schedule before 00:00 on January 1st, 1970 under the standard time. Automatic power control manages schedules according to the time zone. Therefore, there is a time difference with the standard time.

Example: If the time zone is "Japan", 09:00 of January 1st, 1970 is 00:00 of January 1st, 1970 under the standard time.

- Be careful with the interval between the power-off time and power-on time.

If the interval is one minute or longer, no error results.

If the interval is less than one minute, an error results and the schedule is ignored.

Set schedules with intervals that are greater than the following value:

Minimum schedule interval = Main unit startup time + Main unit shutdown time

The main unit startup time means the time from the specified power-on time to completion of starting up the main unit.

The main unit shutdown time means the time from the specified power-off time to actual power-off.

When you finish schedule setting, use the -L days option to display the planned execution of automatic power control and verify that the actual operation is in accordance with the settings.

- If the main unit has only a single user, power-off by automatic power control is disabled.
- Automatic power control does not function when the mode switch on the operator panel of the processing unit is set to manual (or MAINTENANCE).
- If, for any of the reasons below, the system cannot be operated in accordance with the Automatic Power Control schedule setting for long periods of time, it may not run in accordance with the schedule even when the Automatic Power Control is in operation.
  - the main power was left off for a long period of time
  - only the power-off schedule is set, and the main power is normally turned on manually (no power-on schedule has been set.)
  - the system was operated for a long period of time in single user mode
- In any of the above cases, restore normal power operation by momentarily stopping the Automatic Power Control and then starting the system again.

## 4.6 cmdevsnd (1M)

### Name

cmdevsnd - System console communication control command

### Format

/usr/sbin/FJSMadm/cmdevsnd -I

/usr/sbin/FJSMadm/cmdevsnd -c 8100

### Function

The cmdevsnd command controls the daemon for communication between the system console and a partition.

### Option

The options are:

-i

Initializes the communication settings.

-c 8100

Confirms communication with SMC.

If either ONLINE or OFFLINE is displayed after execution, the communication status is normal.

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.7 diskswap (1M)

### Name

diskswap - Hot swappable disk display/setting command

### Format

/usr/sbin/FJSMadm/diskswap *subcommand*

### Function

Displays the list of the hot-swappable disks, and adds or deletes disks on the list.

### Subcommands

The *subcommands* are:

- dsp
- Detail
- add *drive\_pathname*
- del *drive\_pathname*

#### dsp

##### Function

Displays the list of hot-swappable disks.

Displays the full path names of the hot-swappable disks on the list.

Nothing is displayed when there is no hot swappable disk.

#### detail

##### Function

Displays the detailed list of the hot-swappable disks.

The detailed list contains the following information.

Nothing is displayed when there is no hot swappable disk.

- Full path name of the disk
- Vendor
- Product
- Revision
- Serial No.

#### add *drive\_pathname*

##### Function

Adds the disk specified by *drive\_pathname* to the list of hot-swappable disks. Specify the full path name of the disk in *drive\_pathname*.

#### del *drive\_pathname*

##### Function

Deletes the disk specified by *drive\_pathname* from the list of hot-swappable disks. Specify the full path name of the disk in *drive\_pathname*.

### Example of use

The following shows an example of a list of hot-swappable disks.

```
# /usr/sbin/FJSMadm/diskswap dsp
/dev/rdisk/c0t1d0s0
/dev/rdisk/c0t2d0s0
```

The following shows an example of a detailed list of hot-swappable disks.

```
# /usr/sbin/FJSMadm/diskswap detail
```

|                                         |                     |           |
|-----------------------------------------|---------------------|-----------|
| /dev/rdisk/c0t1d0s0:sd1:Vendor: FUJITSU | Product: M2954E-512 | Revision: |
| 0147 Serial No:                         |                     |           |
| /dev/rdisk/c0t2d0s0:sd2:Vendor: FUJITSU | Product: M2952E-512 | Revision: |
| 0142 Serial No:                         |                     |           |

The following shows a case when /dev/rdisk/c0t1d0s0 is added to the list of hot-swappable disks.

```
# /usr/sbin/FJSVmadm/diskswap add /dev/rdisk/c0t1d0s0
```

### End status

The end status can be:

0: Normal end

1: Error

### Related item

chgdisk (1M)

## 4.8 hcpversion (1M)

### Name

hcpversion – displays HCP version

### Format

/usr/sbin/FJSMadm/hcpversion [-v]

### Function

The hcpversion displays the version of Hardware Control Program (HCP).

### Option

The following option can be specified.

-v

Displays individual versions of the firmware.

### End status

The hcpversion command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.9 hrdconf (1M)

### Name

hrdconf - Hardware configuration display command

### Format

/usr/sbin/FJSVmadm/hrdconf [-i|-l]

### Function

Displays the hardware configuration in tree form.

### Option

The options are:

-i

Interactive mode.

Displays a part of the hardware configuration.

Specifying this option displays the top layer of the hardware configuration.

You can change the tree view of the hierarchical hardware configuration by entering one of the following settings:

Numeral: Displays the specified layer and the lower layers.

h : Displays the HELP information.

b : Displays the higher layers.

t : Displays the top layer of the hardware configuration.

q : Quits this mode.

-l

Displays the detailed information.

Displays detailed information about each node of the tree.

### Display example

The following shows an example of hardware configuration information.

```
# /usr/sbin/FJSVmadm/hrdconf
```

```
GP7000F model 600
```

```
  CPU
```

```
    CPU#0
```

```
    CPU#1
```

```
    CPU#2
```

```
    CPU#3
```

```
    CPU#4
```

```
    CPU#5
```

```
    CPU#6
```

```
    CPU#7
```

```
  Memory
```

```
    SLOTA0
```

```
    SLOTA1
```

```
    SLOTA2
```

```
    SLOTA3
```

```
    SLOTB0
```

```
SLOTB2
SLOTB3
Battery
  DiskArray-Battery
    DARY-B#0
    DARY-B#1
  UPS-Battery
    UPS-B#0
U2P#0B
  ebus0
  Floppy0
  FlashPROM
  SCF
  RCI
    host(000101ff)
  FAN
    *E* FAN#0
    FAN#10
    FAN#11
    FAN#12
    FAN#13
    FAN#14
    FAN#15
    FAN#16
    FAN#17
    FAN#18
    FAN#19
    FAN#1
    FAN#20
    FAN#21
    FAN#22
    *E* FAN#2
    *E* FAN#3
    *E* FAN#4
    *E* FAN#5
    FAN#6
    FAN#7
    FAN#8
    FAN#9
    FEPFAN#0
    FEPFAN#1
    FEPFAN#2
```

```

                                FEP
                                FEP#0
                                FEP#1
                                FEP#2
network0
scsi0
    disk
    tape
    sd0
scsi1
    disk
    tape
    sd19
U2P#0A
    token-ring
U2P#1B
    scsi2
        disk
        tape
    scsi3
        disk
        tape
    pci0
        pci108e,1000
        SUNW,hme1
        SUNW,isptwo0
    pf
U2P#1A
    pci1
        pci108e,1000
        SUNW,hme2
        SUNW,isptwo1
U2P#2B
    SUNW,m64B0
    pf
    pci10ee,4013
U2P#2A
    pci2
        pci108e,1000
        SUNW,hme3
        SUNW,isptwo2
U2P#3B
```

```
pci10ee,4013
pci10ee,4013
pci10ee,4013
U2P#3A
pci10ee,4013
```

#### End status

The end status can be:

0: Normal end

Other than 0: Error



#### Note

- Devices that do not have a driver attached may not be displayed.
- If the main unit is the PRIMEPOWER250/450, the instance number may not be displayed for a device that does not have a driver attached at startup of the system.

If this happens, execute the `updateunitinfo (1M)` command after the driver is attached in order to update the configuration information.

## 4.10 inst2comp (1M)

### Name

inst2comp - Physical slot name change command

### Format

/usr/sbin/FJSVmadm/inst2comp *inst\_name*

### Function

The inst2comp command displays ap\_id based on the adapter driver instance name of the PCI card. Specify the instance name of the adapter driver in *inst\_name*.

### Execution example

To display the name of the PCI physical slot where an adapter controlled by glm2 is mounted:  
example% /usr/sbin/FJSVmadm/inst2comp glm2  
pcipsy1:R0B01-PCI#slot01

### End status

The end status can be:  
0: Normal end  
1: The specified driver instance does not exist.  
Other than 0 and 1: Another type of error

## 4.11 madmin (1M)

### Name

madmin - Machine administration CUI menu start command

### Format

/usr/sbin/FJSVmadm/madmin

### Function

Starts the CUI menu of machine administration.

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.12 nocheckdev (1M)

### Name

nocheckdev - Regular monitoring device exclusion command

### Format

```
/usr/sbin/FJSMadm/nocheckdev [ dsp | add device_pathname | del device_pathname ]
```

### Function

Displays, registers, or deletes devices to which regular device access is suppressed due to the execution of preventive replacement monitoring and cleaning monitoring.

### Option

The options are:

#### dsp

Displays the list of devices for which regular monitoring is suppressed.

#### add *device\_pathname*

Registers a device as a device for which regular monitoring is to be suppressed.

In *device\_pathname*, specify a logical device path name under /dev/rdisk or /dev/rmt.

Specify a device as the tape unit (/dev/rmt/subordinate-device), using only numerals (Example: /dev/rmt/0).

#### del *device\_pathname*

Deletes a device that was set as a device for which regular monitoring is to be suppressed. The deleted device will be excluded from the devices for which regular monitoring is to be suppressed from the next time monitoring takes place.

In *device\_pathname*, specify a logical device path name under /dev/rdisk or /dev/rmt.

Specify a device as the tape unit (/dev/rmt/subordinate-device), using only numerals (Example: /dev/rmt/0).

### Example of use

A} The following shows the devices for which regular monitoring is to be suppressed.

```
# /usr/sbin/FJSMadm/nocheckdev dsp
/dev/rdisk/c0t2d0s0
/dev/rdisk/c0t3d0s0
/dev/rmt/5
```

- When there is no data for display:

```
# /usr/sbin/FJSMadm/nocheckdev dsp
No data.
```

B} The following shows an example case where a device is registered as a device for which regular monitoring is to be suppressed.

```
# /usr/sbin/FJSMadm/nocheckdev add /dev/rdisk/c0t4d0s0
The device ( /dev/rdisk/c0t4d0s0 ) was added.
```

- When the same device is already registered:

```
# /usr/sbin/FJSMadm/nocheckdev add /dev/rdisk/c0t0d0s0
This device ( /dev/rdisk/c0t0d0s0 ) has already been added.
```

- When the specified device does not exist:

```
# /usr/sbin/FJSMadm/nocheckdev add /dev/rdisk/c0t7d0s0
This device ( /dev/rdisk/c0t7d0s0 ) isn't mounted on this server.

illegal argument
usage : nocheckdev [ dsp | add "device_name" | del "device_name" ]
    dsp :
        dsp Deletion of setting.
    add : Deletion of setting.
    del : Deletion of setting.
```

- When the specified tape unit is not specified with only numerals:

```
# /usr/sbin/FJSMadm/nocheckdev add /dev/rmt/0n
This tape device ( /dev/rmt/0n ) is incorrect.

illegal argument
usage : nocheckdev [ dsp | add "device_name" | del "device_name" ]
    dsp :
        dsp Deletion of setting.
    add : Deletion of setting.
    del : Deletion of setting.
```

C} The following shows an example case where a device for which regular monitoring is to be suppressed is deleted.

```
# /usr/sbin/FJSMadm/nocheckdev del /dev/rdisk/c0t4d0s0
The device ( /dev/rdisk/c0t4d0s0 ) was deleted.
```

- When the specified device is not registered as a device for which monitoring is to be suppressed:

```
# /usr/sbin/FJSMadm/nocheckdev del /dev/rdisk/c0t0d0s0
This device ( /dev/rdisk/c0t0d0s0 ) isn't added.

illegal argument
usage : nocheckdev [ dsp | add "device_name" | del "device_name" ]
    dsp :
        dsp Deletion of setting.
    add : Deletion of setting.
    del : Deletion of setting.
```

- When the specified tape unit is not a device specified using only numerals:

```
# /usr/sbin/FJSMadm/nocheckdev del /dev/rmt/0n
This tape device ( /dev/rmt/0n ) is incorrect.

illegal argument
```

```
usage : nocheckdev [ dsp | add "device_name" | del "device_name" ]
      dsp :
      dsp Deletion of setting.
      add : Deletion of setting.
      del : Deletion of setting.
```

End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.13 postphp (1M)

### Name

postphp - PCI Hot Plug post-processing command

### Format

/usr/sbin/FJSMadm/postphp

### Function

The postphp command performs the following processing after operation of PCI Hot Plug:

- Restarts the hardware failure monitoring function stopped by the prephp command.
- Reconstructs the hardware configuration database maintained by machine administration.
- Restarts picld(1M).

### End status

The end status can be:

0: Normal end

Other than 0: Error

When an error occurs, execute this command again.



### Note

- Always execute this command after unmounting or installing a PCI card. If this command is not executed, the failure monitoring and reporting functions thereafter will not operate normally.
- Executing this command restarts picld(1M). During restart processing, operations of applications using the Platform Information and Control Library (PICL) may be suspended.

## 4.14 prephp (1M)

### Name

prephp - PCI Hot Plug pre-processing command

### Format

/usr/sbin/FJSMadm/prephp

### Function

The prephp command stops daemon processing when PCI Hot Plug is being performed.

The prephp command stops the following function:

- Hardware error monitoring function

### End status

The end status can be:

0: Normal end

Other than 0: Error

When an error occurs, execute this command again.



### Note

- Always execute this command before unmounting or installing a PCI card. Otherwise, unmounting or installation processing may fail.
- Executing this command restarts picld(1M). During restart processing, operations of applications using the Platform Information and Control Library (PICL) may be suspended.

## 4.15 prtterrlog (1M)

### Name

prtterrlog - SCF error log display command

### Format

```
/usr/sbin/FJSVmadm/prtterrlog [-i] [-e error_code] [-f file[-m model]] [-g] [-r] [-s] [-t type] [-x]
[-A yyyymmdd[HHMM]] [-B yyyymmdd[HHMM]] [-S HHMM] [-E HHMM]
```

### Function

The prtterrlog command displays the SCF error log of hardware errors detected by the main unit.

### Option

The options are:

-i

Displays the error log without updating the SCF error log information.

-e *error\_code*

Displays the record of the specified *error\_code*.

For *error\_code*, specify a hexadecimal number such as 0x06040001.

To specify multiple error codes, write them in the form [-e *error\_code* -e *error\_code*].

-f *file*

Displays the specified *file* as an SCF error log file.

Do not update the SCF error log file before you display it.

-m *model*

Specify the model code of the host.

This option is useful for editing an SCF error log recorded on a different main unit.

If this option is not specified, the system edits the log according to the model of the main unit and displays it.

-g

The time at which the log is stored in GMT is displayed.

-r

Information is displayed in reverse chronological order.

-s

Displays the following information in the one-line-one-event form.

- Event number
- Type
- Time when the log was stored.
- Error code or component

-t *type*

The following table shows the log types that can be specified.

| type | Displayed item                               |
|------|----------------------------------------------|
| E    | Device or environment error detected by SCF. |
| H    | Watchdog monitoring error                    |
| R    | Error detected by OBP/POST                   |

-x

Dump data is displayed in hexadecimal form.

-A *yyyymmdd*[*HHMM*]

Records logged since the date specified in *yyyymmdd* are displayed.

In cases where *HHMM* is specified, records logged since the time specified in

- HHMM of the day specified in `yyymmdd` are displayed.
- B `yyymmdd[HHMM]`  
Records logged prior to the date specified in `yyymmdd` are displayed.  
In cases where HHMM is specified, records logged prior to the time specified in HHMM of the day specified in `yyymmdd` are displayed.
- S HHMM  
Displays the records logged from the time specified in HHMM through 23:59.  
If -E is specified, records logged from the time specified with -S until the time specified with -E are displayed.
- E HHMM  
Records logged from 00:00 until the time specified in HHMM are displayed.  
If -S is specified, records logged from the time specified with -S until the time specified with -E are displayed.

Displayed item

The following information is displayed:

- Type  
Log type.
- ID  
Version number of the device.  
This is displayed in an SCF error log (including Watchdog).
- Version  
Version information about SCF, OBP, and POST.
- Date  
Date when the error occurred.
- Error code  
Error code.
- Component  
Displayed for an OBP/POST log (POST detection).
- Information  
Detailed information.  
Displayed in ASCII for an OBP/POST log (OBP detection).  
In other logs, this is displayed in a hexadecimal dump.
- Memory Configuration  
Memory configuration information.  
Displayed in an OBP/POST log (POST detection) for a memory configuration error.

Display example

- The following is an example of an SCF error log (SCF detection in type E).

```

Type           : SCF(E)
ID             (hex) : 00
Version        : C
Date           : Nov 16 18:29:39 1998
Error code     : fan warning (0x06110002)

Information (hex) : 4001 0000 0000 0000 0000 0000 0000 0000
                   0000 0000 0000 0000 0000 0000 0000 0000
                   0000 0000 0000 0000 0000 0000 0000 0000
```

- The following is an example of an SCF error log (SCF detection in type H (Watchdog)).

```

Type           : SYSTEM-WATCH(H)
ID             (hex) : 00
Version        : D1
Date           : Nov 16 18:29:39 1998
Error code     : power-on check error (0xf0000001)

Information (hex) : 0000 0000 0000 0000 0000 0000 0080 0080
                   0000 0000 0000 0000 0000 0000 0000 0000
                   0000 c6c0 0002 6df8 0000 0010 0000 0001

```

- The following is an example of an OBP/POST log (POST detection).

```

Type           : BPR0M(R)
Version        : A(0119)
Date           : Nov 16 18:29:39 1998
Error code (hex) : 15250029
Component      : SCSI#0

Information (hex) : 0000 01fe 0000 a800 cf00 0000 0000 fc00
                   Cf01 0000 0000 fc00 0001 0000 0000 0000
                   0000 0000 0000 0000 0000 0000 0000 0000

```

- The following is an example of an OBP/POST log (OBP detection).

```

Type           : BPR0M(R)
Version        : A(0b01)
Date           : Nov 16 18:29:39 1998
Error code (hex) : 00000000

Information Setting NVRAM parameters to default values.

```

- The following is an example of an OBP/POST error log (POST detection of memory configuration error).

```

Type           : BPR0M(R)
Version        : A(0119)
Date           : Nov 16 18:29:39 1998
Error code (hex) : 112100a1
Component      : Mem Config error
Memory Configuration :

00-SLOT0 = 512MB 00-SLOT1 = 512MB 00-SLOT2 = 256MB 00-SLOT3 = 512MB
00-SLOT4 = 64MB 00-SLOT5 = 64MB 00-SLOT6 = 64MB 00-SLOT7 = 512MB
00-SLOT8 = 256MB 00-SLOT9 = 512MB 00-SLOT10= 256MB 00-SLOT11= 256MB
00-SLOT12= 64MB 00-SLOT13= 512MB 00-SLOT14= 512MB 00-SLOT15= 512MB
01-SLOT0 =---- 01-SLOT1 =---- 01-SLOT2 =---- 01-SLOT3 =----
01-SLOT4 =---- 01-SLOT5 =---- 01-SLOT6 =---- 01-SLOT7 =----

```

```
01-SLOT8 =---- 01-SLOT9 =---- 01-SLOT10=---- 01-SLOT11=----
01-SLOT12=---- 01-SLOT13=---- 01-SLOT14=---- 01-SLOT15=----

Information (hex) : 2020 1020 04040 0420 1020 1010 0420 2020
                    0000 0000 0000 0000 0000 0000 0000 0000
                    0000 0000 0000 0000 0000 0000 0000 0000
```

Example of use

To show the detailed information in an SCF error log in order of occurrence:

```
# /usr/sbin/FJSVmadm/prterrlog | more
```

To show the detailed information in an SCF error log in reverse chronological order:

```
# /usr/sbin/FJSVmadm/prterrlog -r | more
```

To show the detailed information in an SCF error log /tmp/scferrlog1 in order of occurrence:

```
# /usr/sbin/FJSVmadm/prterrlog -f /tmp/scferrlog1 | more
```

To display an SCF error log in the one-line-one-event form.

```
# /usr/sbin/FJSVmadm/prterrlog -s | more
```

To display the time when the log was stored in GMT:

```
# /usr/sbin/FJSVmadm/prterrlog -g | more
```

End status

The end status can be:

0: Normal end

Other than 0: Error

File

/var/opt/FJSVhwr/scferrlog

Related item

scferrlog (1M)

## 4.16 prtmdmlog (1M)

### Name

prtmdmlog - Machine administration monitoring log display command

### Format

```
/usr/sbin/FJSVmadm/prtmdmlog [-f file] [-r] [-s string [-s string [-a]]] [-A
yyyymmdd[HHMMSS]] [-B yyyymmdd[HHMMSS]] [-S HHMMSS] [-E HHMMSS]
```

### Function

The prtmdmlog command displays the hardware monitoring log collected by machine administration.

### Option

The options are:

**-f file**

The specified *file* is displayed as a machine administration monitoring log file.

**-r**

Information is displayed in reverse chronological order.

**-s string**

The line that has the specified string is displayed.

To specify multiple strings, write as **-s string -s string**.

To display multiple strings in an AND operation, write as **-s string -s string -a**.

If you do not specify **-a**, the system displays multiple strings in an OR operation.

**-A yyyymmdd[HHMM]**

The information logged since the date specified in yyyymmdd is displayed.

In cases where HHMMSS is specified, records logged since the time specified in HHMMSS of the day specified in yyyymmdd are displayed.

**-B yyyymmdd[HHMMSS]**

The information logged prior to the date specified in yyyymmdd are displayed.

In cases where HHMMSS is specified, records logged prior to the time specified in HHMMSS of the day specified in yyyymmdd are displayed.

**-S HHMMSS**

Records logged from the time specified in HHMMSS until 23:59:59 are displayed.

If **-E** is specified, records logged from the time specified with **-S** until the time specified with **-E** are displayed.

**-E HHMMSS**

Records logged from 00:00:00 until the time specified in HHMMSS are displayed.

If **-S** is specified, records logged from the time specified with **-S** until the time specified with **-E** are displayed.

### Display example

The following example shows a log displayed in reverse chronological order:

```
# /usr/sbin/FJSVmadm/prtmdmlog -r
Oct  6 13:41:11 1998 FJSVmadm INFO: set root's 1(1) root
Oct  6 13:35:35 1998 FJSVmadm INFO: set root's 2(2)
Oct  3 14:08:35 1998 last message repeated 1 time
```

### Example of use

The message log is displayed in chronological order.

```
# /usr/sbin/FJSVmadm/prtmadmlog | more
```

The message log is displayed in reverse chronological order.

```
# /usr/sbin/FJSVmadm/prtmadmlog -r | more
```

Information including the string “WARNING” is displayed.

```
# /usr/sbin/FJSVmadm/prtmadmlog -s "WARNING" | more
```

### End status

The end status can be:

0: Normal end

1: Error

### File

/var/opt/FJSVmadm/log/madmlog

## 4.17 prtmsglog (1M)

### Name

prtmsglog - Message log display command

### Format

```
/usr/sbin/FJSMadm/prtmsglog [ -f file ] [-r] [ -s string [ -s string [-a]]] [ -A mmdd[HHMMSS]]
[-B mmdd[HHMMSS]] [ -S HHMMSS] [ -E HHMMSS]
```

### Function

The prtmsglog command displays the message log information captured by the operating system. If the message spans more than one line, the part from the line head to the first colon (:) after the time stamp shall be regarded as one message.

### Option

The options are:

-f *file*

Displays the message log file of the specified *file*.

-r

Information is displayed in reverse chronological order.

-s *string*

The line that has the specified string is displayed.

To specify multiple strings, write as -s *string* -s *string*.

To display multiple strings in an AND operation, write as -s *string* -s *string* -a.

If you do not specify -a, the system displays multiple strings in an OR operation.

-A *mmdd*[*HHMMSS*]

Records logged since the date specified in *mmdd* are displayed.

In cases where *HHMMSS* is specified, records logged since the time specified in *HHMMSS* of the day specified in *mmdd* are displayed.

-B *mmdd*[*HHMMSS*]

Records logged prior to the date specified in *mmdd* are displayed.

In cases where *HHMMSS* is specified, records logged prior to the time specified in *HHMMSS* of the day specified in *mmdd* are displayed.

-S *HHMMSS*

Records logged from the time specified in *HHMMSS* until 23:59:59 are displayed.

If -E is specified, records logged from the time specified with -S until the time specified with -E are displayed.

-E *HHMMSS*

Records logged from 00:00:00 until the time specified in *HHMMSS* are displayed.

If -S is specified, records logged from the time specified with -S until the time specified with -E are displayed.

### Display example

The following example shows a log displayed in reverse chronological order:

```
# /usr/sbin/FJSMadm/prtmsglog -r
Oct  7 15:52:41 champ0 unix: WARNING: FJSVscf: cmd buffer full, (10) times repeated
Oct  7 15:52:40 champ0 last message repeated 1 time
Oct  7 15:52:40 champ0 unix: WARNING: FJSVscf: scf cmd (0x51) incomplete
Oct  6 12:52:40 champ0 unix: WARNING: $Q: cannot send command due to SCF busy.
```

### Example of use

The message log is displayed in chronological order.

```
# /usr/sbin/FJSVmadm/prtmmsglog | more
```

The message log is displayed in reverse chronological order.

```
# /usr/sbin/FJSVmadm/prtmmsglog -r | more
```

Information including the string "WARNING" is displayed.

```
# /usr/sbin/FJSVmadm/prtmmsglog -s "WARNING" | more
```

### End status

The end status can be:

0: Normal end

1: Error

### File

/var/adm/messages

## 4.18 prtpwrlog (1M)

### Name

prtpwrlog - Power log display command

### Format

```
/usr/sbin/FJSVmadm/prtpwrlog [ -f file ] [-g] [-r] [-x] [-X] [ -A yyyymmdd[HHMM]] [-B
yyyymmdd[HHMM]] [ -S HHMM] [ -E HHMM]
```

### Function

The prtpwrlog command displays a power log in which power-on/off times and factor information are stored.

### Option

The options are:

-f *file*

Displays the specified *file* as a power log file.

-g

The time at which the log is stored in GMT is displayed.

-r

Information is displayed in reverse chronological order.

-x

Dump data is displayed in hexadecimal form.

-X

Displays the status and factor codes in hexadecimal format.

-A *yyyymmdd*[*HHMM*]

Records logged since the date specified in *yyyymmdd* are displayed.

In cases where *HHMM* is specified, records logged since the time specified in *HHMM* of the day specified in *yyyymmdd* are displayed.

-B *yyyymmdd*[*HHMM*]

Records logged prior to the date specified in *yyyymmdd* are displayed.

In cases where *HHMM* is specified, records logged prior to the time specified in *HHMM* of the day specified in *yyyymmdd* are displayed.

-S *HHMM*

Records logged from the time specified in *HHMM* until 23:59 are displayed.

If -E is specified, records logged from the time specified with -S until the time specified with -E are displayed.

-E *HHMM*

Records logged from 00:00 until the time specified in *HHMM* are displayed.

If -S is specified, records logged from the time specified with -S until the time specified with -E are displayed.

### Displayed item

The following information is displayed:

Status

Status

Factor

Factor

Date

Time when the log was stored

### Display example

- The following example shows a log displayed in reverse chronological order:

```
# /usr/sbin/FJSVmadm/prtpwrlog -r
No. Date                Status / Factor
  1. Oct  6 09:23:55 1998  System reset, from panel reset
                                Except power on/off
  2. Oct  3 10:16:05 1998  System reset, from panel reset
                                Except power on/off
  3. Oct  1 19:58:48 1998  System reset, from panel reset
                                Except power on/off
```

- The following example shows the display in GMT of the time when a log was stored.

```
# /usr/sbin/FJSVmadm/prtpwrlog -g
No. Date                Status / Factor
  1. Oct  1 09:51:00 1998 GMT System reset, from panel reset
                                Except power on/off
  2. Oct  1 10:58:48 1998 GMT System reset, from panel reset
                                Except power on/off
  3. Oct  3 01:16:05 1998 GMT System reset, from panel reset
                                Except power on/off
```

- The following example shows the unedited status and factor display in hexadecimal format.

```
# /usr/sbin/FJSVmadm/prtpwrlog -X
No. Date                Status      Factor
  1. Oct  1 19:58:48 1998      0x20      0x00
  2. Oct  3 10:16:05 1998      0x20      0x00
  3. Oct  6 09:23:55 1998      0x20      0x00
```

### Example of use

To display the power log in chronological order:

```
# /usr/sbin/FJSVmadm/prtpwrlog | more
```

To display the power log in reverse chronological order:

```
# /usr/sbin/FJSVmadm/prtpwrlog -r | more
```

To display in GMT the time when the log was stored:

```
# /usr/sbin/FJSVmadm/prtpwrlog -g | more
```

To display the statuses and factor codes in hexadecimal format:

```
# /usr/sbin/FJSVmadm/prtpwrlog -X | more
```

### End status

The end status can be:

- 0: Normal end
- 1: Error

File

/var/opt/FJSVhwr/scfpwrlog (PW-T, PW-U)

/var/opt/FJSVmadm/log/PN00/pwr.log (PW-P, PW-CM)

Related item

scfpwrlog (1M)

## 4.19 remcsmain (1M)

Name

remcsmain - Executes registration with the REMCS Center.

Format

/usr/sbin/FJSMadm/remcsmain

Function

Executes registration with the REMCS Center.

End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.20 resethardstat (1M)

### Name

resethardstat - Machine administration information reset command

### Format

`/usr/sbin/FJSVmadm/resethardstat unitname [-d]`

### Function

The resethardstat command resets or deletes monitoring information maintained by machine administration.

If you replace a device, use this command to reset the monitoring information.

If you unmount a device, use this command to delete the monitoring information.

### Option

The options are:

**unitname**

Specify the unit name.

For the unit name, specify a name such as SLOT1, sd0, FAN#0, etc.

Only one unit name can be specified.

A battery name cannot be specified because its life setting has to be made.

**-d**

Deletes monitoring information.

### Example of use

The following is an example of resetting sd0 information.

```
# /usr/sbin/FJSVmadm/resethardstat sd0
```

### End status

The end status can be:

0: Normal end

Other than 0: Error

### Related item

setbattlife (1M), setfanlife (1M)

## 4.21 savelogs (1M)

### Name

savelogs - Saves the hardware log information.

### Format

```
/usr/sbin/FJSVmadm/savelogs [-o] filename
/usr/sbin/FJSVmadm/savelogs -m[o] [-R root_path] directory
/usr/sbin/FJSVmadm/savelogs -r [-R root_path] directory
```

### Function

The savelogs command collects and saves hardware information together as data for investigation when a hardware failure occurs. A file is made in the tar format and compressed.

The logs to be saved are:

- SCF error log file (including OBP/POST log)
- Power log file
- Output of the fjrtdiag or prttdiag command
- Message log file
- Output of the prtconf command
- Watchdog log file
- Halt log file
- Machine administration monitoring log

The savelogs command starts the scferrlog command, updates the SCF error log information, and then saves the information.

### Option

The options are:

*filename*

Specify the name of the file you want to save the collected information in. If no name is specified, the system saves the information in a file with the following file name:

```
/var/opt/FJSVmadm/tmp/FJSVmadmlogs.tar.Z
```

*directory*

Specify the directory to save the collected information to or the directory of the restore source.

If no directory is specified, the system uses the following directory:

```
/var/opt/FJSVmadm/tmp
```

-m

Saves the monitoring and setting information for machine administration and remote support.

-o

Unconditionally overwrites a storage file, if the storage file name exists. The file is not overwritten by default.

-r

Restores the monitoring and setting information for machine administration and remote support.

If the specified directory does not contain the storage file with the monitoring and setting information for machine administration and remote support, an abnormal end results.

-R *root\_path*

Specify the full path name of the directory to use in *root\_path*.

Machine administration saves or restores monitoring and setting information in the boot environment mounted in `root_path`.

#### Example of use

The following is an example of saving data in the file used by default.

```
# /usr/sbin/FJSMadm/savelogs
```

The following is an example of saving data in a file named `/tmp/abc001`.

```
# /usr/sbin/FJSMadm/savelogs /tmp/abc001
```

#### End status

The end status can be:

0: Normal end

Other than 0: Error

#### Related item

`scferrlog (1M)`, `prtconf (1M)`, `fjprtdiag (1M)`, or `prtdiag (1M)`

## 4.22 scfconsole (1M)

### Name

scfconsole – configures XSCF network and console

### Format

```
/usr/sbin/FJSVmadm/scfconsole inet ip-address mask subnet-mask gateway gateway-address
/usr/sbin/FJSVmadm/scfconsole hostname hostname
/usr/sbin/FJSVmadm/scfconsole dns {-|nameserver-address}
/usr/sbin/FJSVmadm/scfconsole set {serial|lan}
/usr/sbin/FJSVmadm/scfconsole port [RW {enable|disable}] [RO {enable|disable}] [SCF
{enable|disable}]
/usr/sbin/FJSVmadm/scfconsole timeout {enable [time=min]|disable}
```

### Function

The scfconsole configures the XSCF network and console. The scfconsole actions are controlled by the subcommand argument.

### Subcommands

The following subcommands are supported:

*inet ip-address* mask *subnet-mask* gateway *gateway-address*

Configures the XSCF network. The *ip-address* specifies Internet Protocol address of XSCF. The *subnet-mask* specifies the subnet mask of XSCF. The *gateway-address* specifies the default gateway address of XSCF.

The network settings specified by this command becomes effective after executing the reboot of XSCF by scfreset(1M).

*hostname hostname*

Specifies the hostname of XSCF to *hostname*. The name of full domain name (FQDN) form within 63 characters can be specified for hostname.

The hostname specified by this command becomes effective after executing the reboot of XSCF by scfreset(1M).

*dns nameserver-address1*[,*nameserver-address2*]

Specifies the DNS server used with XSCF to *nameserver-address1* and *nameserver-address2*. IP address of the nameserver is specified for *nameserver-address1* and *nameserver-address2*.

The DNS servers specified by this command becomes effective after executing the reboot of XSCF by scfreset(1M).

set {serial|lan}

Changes the output destination of OS console. When serial is specified, OS console is output to the serial port. When lan is specified, OS console is output to XSCF-LAN.

port [RW {enable|disable}] [RO {enable|disable}] [SCF {enable|disable}]

Changes the availability of the connection port to XSCF.

RW changes the setting of the read/write port of OS console. RO changes the setting of read-only port of OS console. SCF changes the setting of SCF shell port.

The "enable" enables the port, and "disable" disables the port.

timeout { enable [time=*min*]|disable}

Configures the automatic logout time-out of the XSCF shell.

If enable is specified, the automatic logout time-out becomes effective. The time-out time is specified with *min*.

If disable is specified, the automatic logout time-out becomes invalid.

End status

The scfconsole command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.23 scfhttp (1M)

### Name

scfhttp – configures XSCF http service

### Format

```
/usr/sbin/FJSVmadm/scfhttp {ro|rw|disable}  
/usr/sbin/FJSVmadm/scfhttp locale {C|ja}  
/usr/sbin/FJSVmadm/scfhttp page {text|graphic}  
/usr/sbin/FJSVmadm/scfhttp access {-|ip-addresses}
```

### Function

The scfhttp configures the XSCF http service. The scfhttp actions are controlled by the subcommand argument.

### Subcommands

The following subcommands are supported:

`{ro|rw|disable}`

Changes the availability and mode of the http service.

If ro is specified, the http service is enabled and becomes the read-only mode.

If rw is specified, the http service is enabled and becomes read/write mode.

If disable is specified, the http function is disabled.

`locale {C|ja}`

Specifies the locales used by the http service by either of C or ja.

`page {text|graphic}`

Specifies the Web page display mode. If text is specified, the page becomes be displayed only by the text. If graphic is specified, the page becomes be displayed by contains the images.

`access {-|ip-addresses}`

Configures the IP address of the hosts who permits the http access. The addresses up to 16 can be specified for *ip-addresses* by separated with the comma. When “-“ is specified, the setting of present is cleared.

### End status

The scfhttp command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.24 scfmail (1M)

### NAME

scfmail - configures XSCF mail report

### SYNOPSIS

```
/usr/sbin/FJSVmadm/scfmail {enable|disable}
/usr/sbin/FJSVmadm/scfmail server server-name1 [, server-name2] rootaddr to-address
fromaddr from-address
/usr/sbin/FJSVmadm/scfmail pop pop-server:pop-user:pop-passwd[:waiting-time]
/usr/sbin/FJSVmadm/scfmail test
```

### DESCRIPTION

The scfmail configures the XSCF mail report. The scfmail actions are controlled by the subcommand argument.

### SUBCOMMANDS

The following subcommands are supported:

#### **{enable|disable}**

Changes the availability of the XSCF mail report.

If enable is specified, the mail report function is enabled.

If disable is specified, the mail report function is disabled.

#### **server *server-name1* [, *server-name2*] rootaddr *to-address* fromaddr *from-address***

Specifies the SMTP server and e-mail addresses used for the mail report.

The SMTP server name or IP address is specified for *server-name1* and *server-name2*.

The *to-address* specifies the destination e-mail address. The e-mail address should be specified in the form of "user@domain". To use two or more addresses for a destination, specify the addresses delimited by the comma. Up to 8 addresses can be specified for the destination.

The *from-address* specifies the sender address of the e-mail. The specified address is used as a "From" value of e-mail header.

#### **pop *pop-server:pop-user:pop-passwd[:waiting-time]***

Configures the POP before SMTP authentication of mail report. When the POP before SMTP authentication is not used, this subcommand need not be used.

The *pop-server* specifies the server of POP authentication. The *pop-user* specifies the username for POP authentication. The *pop-passwd* specifies the password of POP authentication. The *waiting-time* specifies the transmission waiting time after the authentication of POP. Waiting time is specified by the value of each millisecond of 500 carving from 500 to 127500.

#### **test**

Executes the test mail transmission.

### EXIT STATUS

The scfmail command exits with one of the following values:

0 Success.

>0 An error occurred.

### NOTES

Please confirm e-mail sending can be correctly done by using the “test” subcommand whenever the setting of the report is changed by this command.

## 4.25 scfreset (1M)

### Name

scfreset – reboots XSCF

### Format

/usr/sbin/FJSVmadm/scfreset

### Function

The scfreset reboots the XSCF.

Execute the scfreset to reflect the setting by the scfconsole(1M).

### End status

The scfreset command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.26 scfshkey (1M)

### Name

scfshkey - Sets and displays the XSCF shell login keyword.

### Format

/usr/sbin/FJSMadm/scfshkey

/usr/sbin/FJSMadm/scfshkey set *keyword*

### Function

Displays and sets the keyword to be input when control is transferred from the standard console to the XSCF shell.

### Option

The options are:

set keyword

Sets a new keyword.

Specify *keyword* with an alphanumeric character string having one to seven characters.

If you omit the option, the currently set keyword is displayed.

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.27 scfsnmp (1M)

### Name

scfsnmp – configures XSCF SNMP service

### Format

```
/usr/sbin/FJSVmadm/scfsnmp {enable|disable}
/usr/sbin/FJSVmadm/scfsnmp [syscontact admin_name] [sysname sys_name] [syslocation
location]
/usr/sbin/FJSVmadm/scfsnmp setcommunity community [manager address] [access {RW|RO}]
[trap {enable|disable}]
/usr/sbin/FJSVmadm/scfsnmp rmcommunity community
```

### Function

The scfsnmp configures the XSCF SNMP service. The scfsnmp actions are controlled by the subcommand argument.

### Subcommands

The following subcommands are supported:

{enable|disable}

Changes the availability of the XSCF SNMP service.  
If enable is specified, the SNMP function is enabled.  
If disable is specified, the SNMP function is disabled.

[syscontact *admin\_name*] [sysname *sys\_name*] [syslocation *location*]

Specifies the manager name used with SNMP by *admin\_name*. The alphanumeric character within 15 characters can be used for *admin\_name*.

Specifies the system name used with SNMP by *sys\_name*. The alphanumeric character within 15 characters can be used for *sys\_name*.

Specifies the location name of the site used with SNMP by *location*. The alphanumeric character within 15 characters can be used for *location*.

setcommunity *community* [manager *address*] [access {RW|RO}] [trap {enable|disable}]

Configures the community of SNMP.

Specifies the community name of the SNMP by *community*. The alphanumeric character within 11 characters can be used for *community*.

Specifies the SNMP manager's IP address by *address*. When 0.0.0.0 is specified, the access from all the managers is permitted.

Specifies the access mode to the community by *access*. When RW is specified, read/write are permitted. When RO is specified, only read is permitted.

Specifies the issue mode of the trap by *trap*. When enable is specified, the trap issue becomes effective. When disable is specified, the trap issue is invalidated.

When the SNMP manager address is specified for 0.0.0.0, the trap is not issued regardless of the setting of the trap issue mode.

rmcommunity *community*

Deletes the configuration specified with *community*.

End status

The scfsnmp command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.28 scfstat (1M)

### Name

scfstat –displays the various settings of XSCF

### Format

/usr/sbin/FJSVmadm/scfstat console  
/usr/sbin/FJSVmadm/scfstat user  
/usr/sbin/FJSVmadm/scfstat http  
/usr/sbin/FJSVmadm/scfstat snmp  
/usr/sbin/FJSVmadm/scfstat mail  
/usr/sbin/FJSVmadm/scfstat all

### Function

The scfstat displays the various settings of XSCF. The scfstat actions are controlled by the subcommand argument.

### Subcommands

The following subcommands are supported:

#### console

Displays the present setting of the content set by scfconsole(1M).  
Refer to scfconsole(1M) for contents.

#### user

Displays the present setting of the content set by scfuser(1M).  
Refer to scfuser(1M) for contents.

#### http

Displays the present setting of the content set by scfhttp(1M).  
Refer to scfhttp(1M) for contents.

#### snmp

Displays the present setting of the content set by scfsnmp(1M).  
Refer to scfsnmp(1M) for contents.

#### mail

Displays the present setting of the content set by scfmail(1M).  
Refer to scfmail(1M) for contents.

#### all

All contents displayed by console, user, http, snmp, and the mail subcommands are displayed.

### End status

The scfstat command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.29 scfuser (1M)

### Name

scfuser - operates XSCF user account

### Format

*/usr/sbin/FJSVmadm/scfuser useradd -g group-name user-name*

*/usr/sbin/FJSVmadm/scfuser userdel user-name*

*/usr/sbin/FJSVmadm/scfuser passwd user-name*

*/usr/sbin/FJSVmadm/scfuser setpass user-name new-password*

### Function

The scfuser command adds or deletes the XSCF user account or changes the password of the XSCF user. The scfuser actions are controlled by the subcommand argument.

### Subcommands

The following subcommands are supported:

*useradd -g group-name user-name*

Adds a new user account to the XSCF for the name specified with *user-name*. Up to 8 alpha-numeric characters can be specified for the *user-name*. The *group-name* specifies the group name which the new user belongs to. Specify either "root" or "others" for the *group-name*. Up to eight users can be registered in the XSCF.

*userdel user-name*

Deletes the account associated with the *user-name* from the XSCF.

*passwd user-name*

Changes the password of the account for the name specified with *user-name*. The scfuser command prompts for the new password twice. The password must be between 8 and 16 characters in length. Alpha-numeric and graphical characters can be used in the password.

*setpass user-name new-password*

Changes the password of the account for the name specified with *user-name* to *new-password*. The *new-password* must be between 8 and 16 characters in length. Alpha-numeric and graphical characters can be used in the password.

### End status

The scfuser command exits with one of the following values:

0: Success.

Other than 0: An error occurred.

## 4.30 scslset (1M)

### Name

scslset - System console setting command

### Format

/usr/sbin/FJSMadm/scslset <system-console-host-name>

### Function

The scslset command changes the host name of the system console held by a partition.



See

When you make a change in the network, see the following manual.

System Console Software User's Guide

Follow the procedure described in Section 4.4 "Changing the Network Settings".

Specify the host name of the system console in <system-console-host-name>.

### End status

The end status can be:

0: Normal end

Other than 0: Error

### Related item

scslspareset (1M), addevhost (1M)

## 4.31 scslspareset (1M)

### Name

scslspareset - Automatic redundancy system console setting command

### Format

```
/usr/sbin/FJSVmadm/scslspareset add <secondary-system-console-host-name>  
/usr/sbin/FJSVmadm/scslspareset del
```

### Function

The scslspareset command sets or deletes an automatic redundancy system console.



See

When setting an automatic redundancy system console, see the following manual:  
Follow the procedure described in Section 4.6 "Installation of Hot Spare SMC Configuration" of  
the System Console Software User's Guide.

### Option

The options are:

add secondary-system-console-host-name

Sets an automatic redundancy system console.

Specify the host name of the *secondary-system-console*.

del

Deletes the set automatic redundancy system console.

### End status

The end status can be:

0: Normal end

Other than 0: Error

### Related item

scslset (1M), addevhost (1M)

## 4.32 setbattlife (1M)

### Name

setbattlife - Battery life monitoring display/setting command

### Format

/usr/sbin/FJSVmadm/setbattlife *battery\_name* [*yyyymm* | -d]

### Function

Displays or sets battery life monitoring.

### Option

The options are:

*battery\_name*

Specify the battery name.

Specify a UPS battery name in the form of UPS-B#*n*.

Specify a disk array battery name in the form of DARY-B#*n*.

*n* is a battery identification number.

If you specify only a battery name, the system displays the month and year when the life of the specified battery is due to expire.

*yyyymm*

Displays the month and year when the life of the specified battery is due to expire.

The life of a battery is the year and month indicated on the label attached to the battery.

For the following disk array, the year and month indicated on a battery label indicates the date when the battery was manufactured. Specify the life of the battery as two years later from the indicated date.

```
F6403XX
```

-d

If you remove a battery, specify the battery name, and delete the life monitoring information using this parameter.

### Example of use

The following shows an example of setting the life of UPS-B#2.

```
# /usr/sbin/FJSVmadm/setbattlife UPS-B#2 200312
```

The following shows the example of displaying the life of UPS-B#0.

```
# /usr/sbin/FJSVmadm/setbattlife UPS-B#0
UPS-B#0 2001/10
```

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.33 setexrdy (1M)

### Name

setexrdy - Command for displaying or setting external power control device EXRDY monitoring-timeout time

### Format

/usr/sbin/FJSVmadm/setexrdy [*rcic\_address* [*tmout*]]

### Function

Displays or sets the EXRDY monitoring-timeout time.

### Option

The options are:

*rcic\_address*

Specify the RCI address of the target external power control device.

If you omit this option, the system displays the settings of all external power control devices.

*tmout*

Specify the monitoring-timeout value for EXRDY monitoring.

The monitoring-timeout time shall be a value twenty times the specified value (seconds).

Specifying 0 disables monitoring.

The range of settings is 0 - 255.

### End status

The end status can be:

0: Normal end

Other than 0: Error



### Note

- Setup takes a while to complete because the system is waiting for completion of the setting process.

## 4.34 setexwait (1M)

### Name

setexwait - External equipment wait time display/setting command

### Format

/usr/sbin/FJSVmadm/setexwait [*waittime*]

### Function

Displays or sets the external equipment wait time.

### Option

The options are:

**waittime**

Specify the external equipment wait time.

The unit of the setting is in minutes and the maximum value is 255 minutes.

You must set a value that is longer than the EXRDY monitoring timeout time.

If you omit this option, the system displays the current setting.

### End status

The end status can be:

0: Normal end

Other than 0: Error



### Note

- Setup takes a while to complete because the system is waiting for completion of the setting process.

## 4.35 setfandly (1M)

### Name

setfandly - Fan stop delay time display/setting command

### Format

/usr/sbin/FJSVmadm/setfandly [*time*]

### Function

Displays or sets the fan stop delay time.

In *time*, specify the value of the fan stop delay time.

If you omit this setting, the system displays the current setting of the fan stop delay time.

The range of settings is 0 - 255 (minutes).

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.36 setfanlife (1M)

### Name

setfanlife - Fan life monitoring display/setting command

### Format

```
/usr/sbin/FJSVmadm/setfanlife fan_name [hours | -i | -d]
```

### Function

Sets fan life monitoring and displays the power-on time.

### Option

The options are:

#### fan\_name

Specify the target fan name.

Specify a fan name in the following form:

Fan for the base cabinet: FAN#*n*

FEP of the base cabinet: FEPFAN#*n*

Fan for an expansion cabinet: *rci-address*-FAN#*n*

FEP for an expansion cabinet: *rci-address*-FEPFAN#*n*

*n* is an identification number.

If you specify only a fan name, the system displays the power-on time of the specified fan.

#### hours

Specify the power-on time of the specified fan.

If you replace a fan with a new fan, specify 0.

If you install ESF again, the power-on time of a fan becomes 0.

Before you install the main unit again, set the power-on time.

#### -i

When you replace a fan, specify the fan name and initialize the monitoring information using this parameter.

#### -d

If you remove a fan, specify the fan name and delete the life monitoring information using this parameter.

### Example of use

The following shows an example of setting the power-on time of FAN#0.

```
# /usr/sbin/FJSVmadm/setfanlife FAN#0 0
```

The following shows an example of the power-on time of FAN#2 installed on a cabinet whose RCI address is 003001ff.

```
# /usr/sbin/FJSVmadm/setfanlife 003001ff-FAN#2
003001ff-FAN#2 100 hours
```

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.37 setpwrmode (1M)

### Name

setpwrmode - Interlocking mode setting command

### Format

/usr/sbin/FJSVmadm/setpwrmode [*mode* [enable[disable]] | default]

### Function

Sets the interlocking mode.

Enables or disables the specified mode.

If you do not specify *mode*, the system displays all settings.

If you do not specify "enable" or "disable", the system displays the current setting.

### Option

The options are:

#### mode

Specify one mode out of the following. [] indicates the default setting.

#### RCI information

| mode    | Definition                                                                              |
|---------|-----------------------------------------------------------------------------------------|
| PONSND  | Power-on send mode [enable]                                                             |
| PONRCV  | Power-on receive mode [disable]                                                         |
| POFFSND | Power-off send mode [enable]                                                            |
| POFFRCV | Power-off receive mode [disable]                                                        |
| EPOSND  | EPO power-off send mode [disable]                                                       |
| RSTRCV  | RESET receivable [disable]                                                              |
| FPOSAFE | Power-on restraint mode after FPO (forced power-off) [disable] (supported only by PW-P) |

#### EPC information

| mode     | Definition                                                        |
|----------|-------------------------------------------------------------------|
| EPCPON   | Power-on instruction receivable [enable]                          |
| EPCPOFF  | Power-off instruction receivable [enable] (not supported by PW-P) |
| EPCREIPL | REIPL receivable [enable] (not supported by PW-P)                 |

#### enable

Enables the specified mode.

#### disable

Disables the specified mode.

#### default

Retsets all modes to default.

### Example of use

The following is an example of current settings.

```
# /usr/sbin/FJSMadm/setpwrmode
PONSND : disable
PONRCV : disable
POFFSND : disable
POFFRCV : disable
EPOSND : disable
RSTRCV : disable
EPCPON : enable
EPCPOFF : enable
EPCREIPL : enable
```

The following is an example of enabling the power-on instruction send mode.

```
# /usr/sbin/FJSMadm/setpwrmode PONSND enable
```

#### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.38 setrci (1M)

### Name

setrci - RCI-related setting command

### Format

/usr/sbin/FJSVmadm/setrci *subcommand*

### Function

Makes the hardware settings for a device that requires RCI-related settings.  
This command also displays a list of RCI devices that this main unit recognizes.

### Subcommands

The *subcommands* are:

- stat
- init
- set host\_no
- mainte
- initconfig
- config

The init and set subcommands are not supported by PRIMEPOWER250/450/650/850.

### stat

#### Function

Displays the RCI status of the main unit and the addresses and the statuses of the devices connected to the RCI.

#### Displayed item

The following information is displayed as the RCI information for the main unit.

#### RCI address

The RCI address of the main unit.

#### Status

The RCI status. The messages corresponding to the individual status are:

Active : RCI is active.  
Mainte : RCI is in maintenance mode.  
Configuring : The RCI network is being constructed.  
ConfigError(reason) : RCI network construction error.

In (reason), one of the following reasons is displayed.

| Reason                                    | Reason for the status                             |
|-------------------------------------------|---------------------------------------------------|
| "Self Host Address Conflict"              | Local address duplication error                   |
| "Host Address Contradict"                 | Host number or host address inconsistency         |
| "RCI Address Contradict"                  | RCI address inconsistency                         |
| "Can't assign new Address"                | New registration unacceptable                     |
| "Error in Configuring"                    | Error in incorporation                            |
| "Self configuration RCI Address Conflict" | Locally constructed RCI address duplication error |
| "RCI Hardware Error"                      | RCI hardware error                                |

The following information is displayed for each RCI-connected unit.

Address: RCI Address

Use this information to specify a device for hot swapping of fans or power

supply units.

Pwr: Power supply status

| Status | Definition      |
|--------|-----------------|
| ON     | Power-on status |
| OFF    | Power-off state |

Alm: Alarm out status

| Status | Definition       |
|--------|------------------|
| ALM    | Alarm out status |
| -      | No alarm         |

I/F: Interface status

| Status | Definition      |
|--------|-----------------|
| ACT    | Active status   |
| INACT  | Inactive status |

sys-phase: OS status

| Status      | Definition                    |
|-------------|-------------------------------|
| power-off   | Power-off state               |
| panic       | Panic status                  |
| shdwn-start | Shutting down                 |
| shdwn-cmplt | Shutdown completed            |
| dump-cmplt  | Dump completed                |
| OBP/POST    | Initial diagnosis in progress |
| booting     | Booting                       |
| running     | Running                       |

Ctgr: Category

| Category | Definition                 |
|----------|----------------------------|
| host     | Main unit                  |
| rcic     | External power supply unit |
| disk     | Disk unit                  |
| Insw     | Line switch                |
| other    | Other device               |

dev-cls: device class

Four digits in hexadecimal format.

sub-cls: subclass

Two digits in hexadecimal format.

tm-out: Monitoring time of no-communication-timeouts

The monitoring time of no-communication-timeouts of monitoring of the RCI unit is displayed.

For devices not supported, "-" is displayed.

#### Display example

The following is a display example:

```
# /usr/sbin/FJSVmadm/setrci stat
HOST
address 000101ff
Active
LIST
address pwr alm I/F sys-phase ctgry dev-cls sub-cls tm-out
000101ff ON - ACT running host 0001 04 -
000102ff ON - ACT running host 0001 04 -
```

|          |     |     |     |         |      |      |    |     |
|----------|-----|-----|-----|---------|------|------|----|-----|
| 000103ff | ON  | -   | ACT | running | host | 0001 | 04 | -   |
| 000104ff | ON  | -   | ACT | running | host | 0001 | 04 | -   |
| 000105ff | ON  | -   | ACT | running | host | 0001 | 04 | -   |
| 000106ff | ON  | -   | ACT | running | host | 0001 | 04 | -   |
| 003001ff | ON  | -   | ACT | -       | rcic | 0200 | 02 | 40  |
| 003002ff | ON  | -   | ACT | -       | rcic | 0200 | 02 | 40  |
| 003003ff | OFF | ALM | ACT | -       | disk | 0400 | 02 | 40  |
| 003004ff | ON  | -   | ACT | -       | disk | 0400 | 05 | 180 |
| 002009ff | ON  | -   | ACT | -       | lsw  | 0800 | 01 | 40  |

init

Function

Sets the RCI address to the default value.

set host\_no

Function

Sets the RCI address of the host.

Option

The options are:

host\_no

Specify the RCI host address in the following form:

0x0001\*\*ff

Specify *host\_no* in the part indicated by \*\*.

The range of settings is 01 to 20.

mainte

Function

Displays the settings of the RCI maintenance mode.

In maintenance mode, the system performs general monitoring processing but it does not report errors. This mode is used for maintenance of RCI-connected units.

You can set the maintenance mode using the mode switch located on the front panel of the main unit.

This command displays the mode of the current RCI network.

Display example

The following is a display example:

```
# /usr/sbin/FJSVmadm/setrci mainte
RCI Maintenance Mode: enable
```

initconfig

Function

Instructs initial incorporation of an RCI device.

For reconfiguration of an RCI, issue the instruction for its incorporation.

config

Function

Instructs incorporation of an RCI device.

For reconfiguration of an RCI after addition or reduction of RCI devices,

issue the instruction for its incorporation.

End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.39 setups (1M)

### Name

setups - Sets the power recovery time.

### Format

/usr/sbin/FJSVmadm/setupstrtime [*idletime*]

### Function

Displays or sets the power recovery time.

The power recovery time is the time from power-off due to power failure during operation of the main unit to resumption of power supply after recognition of power recovery.

If the power recovery mode set in apcsset (1M) is off, this setting is ignored.

### Subcommands

The subcommand is:

rsttime

Displays or sets the idle time before starting power supply after power failure.

*idletime* can be specified in the range of 0 - 255 (minutes).

If *idletime* is omitted, the time currently set is displayed.

### End status

The end status can be:

0: Normal end

Other than 0: Error

## 4.40 updateunitinfo (1M)

### Name

updateunitinfo - Configuration information update command

### Format

/usr/sbin/FJSMadm/updateunitinfo

### Function

Updates the configuration information database of machine administration when you change the configuration with an operation such as hot disk expansion.

Updates the following:

- Information on units to be monitored for machine administration
- Information to be displayed as configuration information

### End status

The end status can be:

0: Normal end

Other than 0: Error



### Note

- This command is supported only by PRIMEPOWER250/450/650/850/900/1500/2500/HPC2500. Executing this command restarts picld (1M).
- During restart processing, operations of applications using the Platform Information and Control Library (PICL) may be suspended.

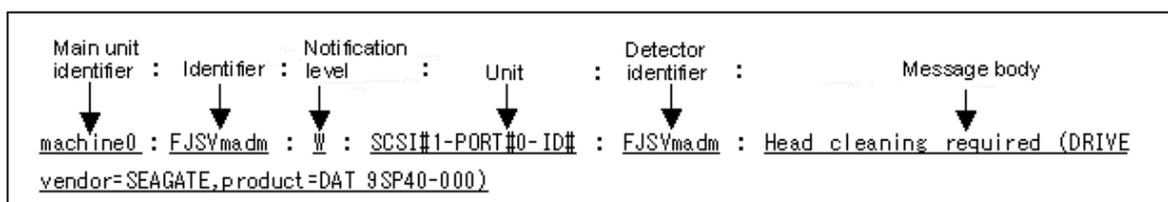


# Chapter 5 Messages

This Chapter contains information common to all models.

If the status of the monitored hardware changes, a message is displayed on the console and the GUI menu screen.\*1 The information is also output to syslog. If the REMCS function is enabled, the information is reported to the REMCS Center.

Messages are in the format described below. The format is explained using the message requesting tape cleaning as an example.



\*1 When System Management Console(SMC) is connected, the message is output to System Management Console.

In this case, the notification level is four. For information on the notification level, refer to the "System Console Software User's Guide".

- Main unit identifier : The host name is displayed as the main unit identifier.
- Identifier : The machine administration identifier (FJSVmadm) is displayed.
- Notification level : The notification levels are shown in the following table.

| Notification level | Definition                                                                                                                                           |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| A                  | Alarm<br>A serious system failure has occurred. Take corrective action immediately.                                                                  |
| W                  | Warning<br>A system failure has occurred. Corrective action is required, but not urgent.                                                             |
| I                  | Information<br>An event that does not fall under any of the categories of Alarm, Warning, or Panic has occurred. Take corrective action as required. |
| P                  | Panic<br>A panic has occurred. Take corrective action immediately.                                                                                   |

- Unit : The name of the part causing the message is displayed.  
The part name varies according to the hardware.
- Detector identifier : The detector of the failure is displayed.  
The following table shows the types of the identifiers.

| Identifier       | Definition                                           |
|------------------|------------------------------------------------------|
| FJSVmadm         | Error detected by machine administration             |
| Kern             | Error detected by a kernel                           |
| SCF_driver       | Error detected by the SCF driver                     |
| FJSVcpupd        | Error detected by CPU patrol diagnosis.              |
| IO-related       | Error detected by a driver<br>Ex} sd, hddv, st, etc. |
| Firmware-related | Error detected by firmware<br>Ex} SCF, POST, OBP     |

Message body : The message is displayed.  
 If the main unit is PRIMEPOWER250/450, the following information is added for a firmware-related message.  
 "Message occurred at MMM DD hh:mm:ss TZ"

| Symbol | Definition                                                                |
|--------|---------------------------------------------------------------------------|
| MMM    | Month<br>(Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, and Dec) |
| DD     | Day (1 - 31)                                                              |
| hh     | Hour (00 - 23)                                                            |
| mm     | Minute (00 - 59)                                                          |
| ss     | Second (00 - 59)                                                          |
| TZ     | Time zone                                                                 |

Check the displayed message with the table "Explanation of messages and appropriate action."  
 "XXXX" in a message indicates the name of the unit where the status change occurred.  
 Check the unit name with the table "Part names and corresponding main units."



- When the same message appears repeatedly:  
 "(X times repeated)" is displayed at the end of the message. X indicates the number of times this message has appeared.  
 The number of times is displayed every 24 hours or at the time when maintenance is performed.  
 If the main unit is PRIMEPOWER 800/1000/2000 or GP7000F model 1000/2000, the same message does not appear again.
- Device connected with the System Management Console (SMC):  
 Messages are output to the System Management Console.

### How to read the table of "Part names and corresponding main units"

The part name designation used in messages is displayed separately by main unit.

- The following table lists the main unit models corresponding to main units A to F.

| Main unit | Main unit model name                                                 |
|-----------|----------------------------------------------------------------------|
| A         | PRIMEPOWER1                                                          |
| B         | PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R |
| C         | PRIMEPOWER250/450                                                    |
| D         | PRIMEPOWER650/850                                                    |
| E         | PRIMEPOWER800/1000/2000, GP7000F model 1000/2000                     |
| F         | PRIMEPOWER900/1500/2500/HPC2500                                      |

- The following shows the symbols used in the table and their definitions.

| Symbol      | Definition                                 |
|-------------|--------------------------------------------|
| n           | Unspecified alphanumeric character         |
| mm          | Hexadecimal number from 0 to F             |
| <component> | Name of faulty component                   |
| (*1)        | Applicable to main unit A only.            |
| (*2)        | Power supply in a PCI/Disk BOX.            |
| (*3)        | Applicable only when the CPU is SPARC64 V. |
| (*4)        | Applicable to main unit D only.            |

Part names and corresponding main units

| Error type                                               | Main unit A/B                                                                          | Main unit C                                                                          | Main unit E                   | Main unit D/F                                                                                              |
|----------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------|
| UPS                                                      | UPS#n                                                                                  | UPS#n                                                                                | None                          | UPS#n(*4)                                                                                                  |
| Fan                                                      | FAN#n<br>FEPFAN#n<br>rci-address-FAN#n<br>rci-address-FEPFAN#n<br>cabinet-name#n-FAN#n | FAN#n<br>rci-address-FAN#n<br>rci-address-FEPFAN#n<br>cabinet-name#n-FAN#n           | None                          | Cabinet#n-FAN#n (*4)<br>RCI-address-FAN#n (*4)<br>Rack#n-PCI_BOX#n-PSU#n-FAN#n(*4)<br>Cabinet-name#n-FAN#n |
| Power supply                                             | FEP#n<br>PCM (*1)<br>cabinet-name#n-PSU#n                                              | DDC-A#n<br>DDC-B#n<br>CPUDDC#n<br>PSU#n<br>rci-address-FEP#n<br>cabinet-name#n-PSU#n | None                          | Cabinet#n-FEP#n (*4)<br>Rack#n-PCIBOX#n-PSU_GA#n(*4)<br>Rack#n-PCIBOX#n-PSU#n(*4)<br>cabinet-name#n-PSU#n  |
| Error in system initialization                           | 0x-SLOTn<br>0x-CPU#n<br>CPU (*1)                                                       | None                                                                                 | None                          | CnS0n-SLOTn<br>CnS0n-CPU#n                                                                                 |
| DTAG                                                     | SB#n-DTAG#n                                                                            | DTAG#z                                                                               | None                          | None                                                                                                       |
| Battery                                                  | UPS-B#n<br>DARY-B#n                                                                    | UPS-B#n<br>DARY-B#n                                                                  | None                          | UPS-B#n<br>DARY-B#n                                                                                        |
| Memory                                                   | SB#y-SLOTn                                                                             | SLOT#n<br>SLOT#n,n<br>SLOT                                                           | Cabinet#n-SB#n-SLOT#n         | Cabinet#n-SB#n-SLOT#n                                                                                      |
| CPU                                                      | SB#n-CPU#n                                                                             | CPU#n<br>CPU                                                                         | None                          | Cabinet#n-SB#n-CPU#n                                                                                       |
| CPU cache                                                | SB#n-CPU#n                                                                             | CPU#n                                                                                | Cabinet#n-SB#n-CPU#n          | Cabinet#n-SB#n-CPU#n                                                                                       |
| Sbus                                                     | SBus card, I/O board (*1)                                                              | None                                                                                 | None                          | None                                                                                                       |
| PCI, Failure occurrence during I/O processing at the PCI | AFAR mm<br>pcin                                                                        | <component>                                                                          | Cabinet#n-SB#n-<component>    | Cabinet#n-SB#n-<component><br>Rack#n-PCIBOX#n-<component><br>or<br>Rack#n-PCI_DISKBOX#n-<component>        |
| Bus                                                      | AFAR mm<br>UPA bus<br>PCI Bus                                                          | AFAR mm<br>UPA bus<br>PCI Bus<br>Invalid Address                                     | AFAR mm<br>UPA bus<br>PCI Bus | AFAR mm                                                                                                    |

| Error type           | Main unit A/B                                             | Main unit C                                                                            | Main unit E                                                                          | Main unit D/F                                                                                                                                                      |
|----------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disk                 | SB#n-PCI#n-ID#n<br>SB#n-SCSI#n-ID#n<br>driver-namen (*1)  | PCI#n-ID#nSCSI#n-ID#n<br>#n<br>PCI#n-PORT#n-ID#n<br>SCSI#n-PORT#n-ID#n<br>ATAPI#n-ID#n | PCI#n-ID#n<br>SCSI#n-ID#n<br>PCI#n-PORT#n-ID#n<br>SCSI#n-PORT#n-ID#n<br>ATAPI#n-ID#n | Cabinet#n-SB#n-PCI#n-ID#n<br>Cabinet#n-SB#n-SCSI#n-ID#n<br>Rack#n-PCIBOX#n-PCI#n-ID#n<br>or<br>Rack#n-PCI_DISKBOX#n-PCI#n-ID#n<br>Rack#n-PCI_DISKBOX#n-SCSI#n-ID#n |
| Tape unit            | SB#n-PCI#n-ID#n<br>SB#n-SCSI#n-ID#n<br>driver-name n (*1) | PCI#n-ID#n<br>SCSI#n-ID#n<br>PCI#n-PORT#n-ID#n<br>SCSI#n-PORT#n-ID#n                   | Cabinet#n-SB#n-PCI#n-ID#n                                                            | Cabinet#n-SB#n-PCI#n-ID#n<br>Cabinet#n-SB#n-SCSI#n-ID#n<br>Rack#n-PCIBOX#n-PCI#n-ID#n<br>or<br>Rack#n-PCI_DISKBOX#n-PCI#n-ID#n<br>Rack#n-PCI_DISKBOX#n-SCSI#n-ID#n |
| PCI card             | SB#n-PCI#n<br>driver_name n (*1)                          | PCI#n                                                                                  | Cabinet#n-SB#n-PCI#n                                                                 | Cabinet#n-SB#n-PCI#n<br>Rack#n-PCIBOX#n-PCI#n<br>or<br>Rack#n-PCI_DISKBOX#n-PCI#n                                                                                  |
| TTY driver           | SB#n-ESCC(TTY)                                            | TTY-A<br>TTY-B                                                                         | Cabinet#n-SB#n-ESCC(TTY)                                                             | Cabinet#n-SB#n-ESCC(TTY)<br>Cabinet#n-SB#n-PCIOB#n-ESCC(TTY)<br>Rack#n-PCI_DISKBOX#n-PCIOB#n-ESCC(TTY)                                                             |
| OS panic             | Part name by analogy with the panic that occurred (*1)    | None                                                                                   | None                                                                                 | Part name by analogy with the panic that occurred                                                                                                                  |
| System-board-related | None                                                      | SB<br>PCI-BD<br>PCI-RISER<br>FANJT#n<br>SCSI-BP#n                                      | None                                                                                 | Cabinet#n-SB#n(*4)                                                                                                                                                 |
| RCI connection unit  | None                                                      | rci-address<br>RCI                                                                     | None                                                                                 | None                                                                                                                                                               |
| Panel                | None                                                      | PANEL                                                                                  | None                                                                                 | Cabinet#n-PANEL#n(*4)                                                                                                                                              |
| PCIBOX               | None                                                      | None                                                                                   | None                                                                                 | Rack#n-PCIBOX#n<br>Rack#n-PCI_BOX#n<br>Rack#n-PCI_Box#n                                                                                                            |

| Error type | Main unit A/B | Main unit C                                 | Main unit E | Main unit D/F |
|------------|---------------|---------------------------------------------|-------------|---------------|
| Others     | None          | Part name detected/analyzed by the CPU (*3) | None        | None          |

**How to read the tables "Explanation of messages and appropriate action"**

- "XXXX" in a message indicates the unit name where the status change occurred.



See

Check the unit name with the table "Part names and corresponding main units."

- The following table lists the main unit names corresponding to main units A to F.

| Main unit | Main unit model name                                                 |
|-----------|----------------------------------------------------------------------|
| A         | PRIMEPOWER1                                                          |
| B         | PRIMEPOWER200/400/600, GP7000F model 200/200R/400/400R/400A/600/600R |
| C         | PRIMEPOWER250/450                                                    |
| D         | PRIMEPOWER650/850                                                    |
| E         | PRIMEPOWER800/1000/2000, GP7000F model 1000/2000                     |
| F         | PRIMEPOWER900/1500/2500/HPC2500                                      |

- The following shows the definitions of the symbols that appear in the columns of main unit A to F.  
 Y : The unit displays this message.  
 N : The unit does not display this message.

- The messages are described for each detector identifier.

The following shows the detector identifiers and the corresponding table title.

| Detector identifier | Table title                                                       |
|---------------------|-------------------------------------------------------------------|
| FJSVmadm            | Explanation of messages and appropriate action (FJSVmadm)         |
| Kern                | Explanation of messages and appropriate action (Kern)             |
| SCF_driver          | Explanation of messages and appropriate action (SCF_driver)       |
| FJSVcpupd           | Explanation of messages and appropriate action (FJSVcpupd)        |
| IO-related          | Explanation of messages and appropriate action (IO-related)       |
| Firmware-related    | Explanation of messages and appropriate action (firmware-related) |

## Explanation of messages and appropriate action (FJSVmadm)

| No | Message (FJSVmadm)                                                                   | Explanation/Appropriate action                                                                                                                                                                                                                                                                                                                                     | Main unit |   |   |   |   |   |
|----|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                      |                                                                                                                                                                                                                                                                                                                                                                    | A         | B | C | D | E | F |
| 1  | FJSVmadm:A:XXXX:FJSVmadm:<br>CPU offline                                             | The CPU has gone offline due to frequent CPU correctable errors.<br>Contact a certified service engineer.<br>Do not place the corresponding CPU online when this message is output.                                                                                                                                                                                | N         | N | Y | Y | N | Y |
| 2  | FJSVmadm:I:XXXX: FJSVmadm:<br>Can not offline the CPU                                | The CPU offline processing in response to frequent CPU correctable errors failed.<br>If some process is bound to the corresponding CPU, release it.<br>If there is only one CPU, this message continues to be output because the system retries offline processing until the system is rebooted.<br><Caution><br>This message is not reported to the REMCS Center. | N         | N | Y | Y | N | Y |
| 3  | FJSVmadm:A:XXXX:FJSVmadm:<br>UPS Failure                                             | An error occurred in XXXX.<br>Replace the UPS unit of XXXX.                                                                                                                                                                                                                                                                                                        | Y         | Y | N | Y | N | N |
| 4  | FJSVmadm:A:XXXX:FJSVmadm:<br>Detected failure on the fan                             | An error occurred in XXXX.<br>Replace the fan of XXXX.                                                                                                                                                                                                                                                                                                             | Y         | Y | Y | Y | N | N |
| 5  | FJSVmadm:A:XXXX:FJSVmadm:<br>Detected failure on the power supply unit               | An error occurred in XXXX.<br>Replace the power supply of XXXX.                                                                                                                                                                                                                                                                                                    | Y         | Y | Y | Y | N | N |
| 6  | FJSVmadm:A::FJSVmadm:<br>The following unit was failed in system initialization XXXX | An error occurred in XXXX. The unit that was defective when system initialization was attempted by the fjprtdiag or prttdiag command has been reported.<br>Replace the unit of XXXX.<br>In this message, XXXX is displayed on multiple lines starting from the second line.                                                                                        | Y         | Y | N | Y | N | N |
| 7  | FJSVmadm:A:XXXX:FJSVmadm:<br>XXXX Correctable error                                  | A DTAG 1-bit error was found in the SCF error log.<br>Replace XXXX.                                                                                                                                                                                                                                                                                                | Y         | Y | N | N | N | N |
| 8  | FJSVmadm:W:XXXX:FJSVmadm:<br>XXXX Prepare Time                                       | The battery of XXXX is nearing the end of its life.<br>Prepare a new battery for XXXX.                                                                                                                                                                                                                                                                             | Y         | Y | Y | Y | N | N |
| 9  | FJSVmadm:W:XXXX:FJSVmadm:<br>XXXX Replace Time                                       | The life of the battery for XXXX has been expired.<br>Replace the battery of XXXX.                                                                                                                                                                                                                                                                                 | Y         | Y | Y | Y | N | N |
| 10 | FJSVmadm:W:XXXX:FJSVmadm:<br>XXXX Expire Time                                        | The expiration date of the life of the battery for XXXX has passed.<br>Replace the battery of XXXX immediately.                                                                                                                                                                                                                                                    | Y         | Y | Y | Y | N | N |
| 11 | FJSVmadm:W:XXXX:FJSVmadm:<br>XXXX Prepare Time                                       | The power-on time of XXXX has reached 90% of its life.<br>Prepare a fan for XXXX.                                                                                                                                                                                                                                                                                  | Y         | Y | Y | N | N | N |

## Chapter 5 Messages

| No | Message (FJSVmadm)                                                                              | Explanation/Appropriate action                                                                                                                                                                                                        | Main unit |   |   |   |   |   |
|----|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                 |                                                                                                                                                                                                                                       | A         | B | C | D | E | F |
| 12 | FJSVmadm:W:XXXX:FJSVmadm:XXXX Replace Time                                                      | The power-on time of XXXX has reached 100% of its life.<br>Replace the fan of XXXX immediately.                                                                                                                                       | Y         | Y | Y | N | N | N |
| 13 | FJSVmadm:A:XXXX:FJSVmadm:Memory Correctable error                                               | A memory 1-bit error message was found in the SCF error log.<br>Replace memory for XXXX.                                                                                                                                              | N         | N | N | Y | N | Y |
| 14 | FJSVmadm:A::FJSVmadm:Inform the log                                                             | SCF error log, halt log, and watchdog log were detected. Contact a certified service engineer.<br>Note:<br>After updating from older ESF versions and rebooting, this message reports on applicable, past logs that have accumulated. | N         | Y | N | N | N | N |
| 15 | FJSVmadm:W:XXXX:FJSVmadm:Consider replacing the disk                                            | Sense code (0x5d) indicating a predicted drive failure caused by a disk was returned.<br>Replace the disk of XXX.                                                                                                                     | Y         | Y | Y | Y | Y | Y |
| 16 | FJSVmadm:W:XXXX:FJSVmadm:Consider replacing the disk (DRIVE vendor=XXXXXXX, product=XXXXXXXXXX) | Sense code (0x5d) indicating a predicted drive failure caused by a disk was returned.<br>Replace the disk of XXX.                                                                                                                     | Y         | Y | Y | Y | Y | Y |
| 17 | FJSVmadm:W:XXXX:FJSVmadm:Head cleaning required                                                 | XXXX requires head cleaning.<br>Clean the head of the tape unit of XXXX.                                                                                                                                                              | Y         | Y | Y | Y | Y | Y |
| 18 | FJSVmadm:W:XXXX:FJSVmadm:Head cleaning required (DRIVE vendor=XXXXXXX, product=XXXXXXXXXX)      | XXXX requires head cleaning.<br>Clean the head of the tape unit of XXXX.                                                                                                                                                              | Y         | Y | Y | Y | Y | Y |
| 19 | FJSVmadm:A::FJSVmadm:Thermal alarm (code=X)                                                     | A thermal error message was found in the message log.<br>Contact a certified service engineer.                                                                                                                                        | Y         | Y | N | N | N | N |
| 20 | FJSVmadm:A:XXXX:FJSVmadm:YYYY Failure                                                           | A YYYY unit failure was detected.<br>Contact a certified service engineer.                                                                                                                                                            | N         | N | N | Y | N | N |
| 21 | FJSVmadm:W:XXXX:FJSVmadm:YYYY Failure                                                           | A YYYY unit failure was detected.<br>Contact a certified service engineer.                                                                                                                                                            | N         | N | N | Y | N | N |
| 22 | FJSVmadm:W::FJSVmadm:NFS mount failed for XXXXX                                                 | The NFS mount failed for System Management Console (hostname=XXXXX).<br>Please check the network setting.                                                                                                                             | N         | N | N | N | N | Y |

## Explanation of messages and appropriate action (Kern)

| No | Message (Kern)                                                      | Explanation/Appropriate action                                                                                                                                                                            | Main unit |   |   |   |   |   |
|----|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                     |                                                                                                                                                                                                           | A         | B | C | D | E | F |
| 1  | FJSVmadm:A:XXXX:kern:<br>Detected failure on the power supply unit  | An error occurred in XXXX.<br>Replace the power supply of XXXX.                                                                                                                                           | Y         | Y | N | N | N | N |
| 2  | FJSVmadm:A:XXXX:kern:<br>XXXX Failure                               | A hardware failure message associated with XXXX was found in the message log.<br>Contact a certified service engineer.                                                                                    | Y         | Y | N | N | N | N |
| 3  | FJSVmadm:A:XXXX:kern:<br>Memory Correctable error                   | A memory 1-bit error message was found in the message log.<br>Replace memory for XXXX.                                                                                                                    | Y         | Y | N | Y | Y | Y |
| 4  | FJSVmadm:A:XXXX:kern:<br>Memory Correctable error (DIMM size=XXXMB) | A memory 1-bit error message was found in the message log.<br>Replace memory for XXXX.                                                                                                                    | Y         | Y | N | Y | Y | Y |
| 5  | FJSVmadm:A:XXXX:kern:<br>U2-Cache correctable Error                 | A secondary cache 1-bit error message was found in the message log.<br>Replace XXXX.                                                                                                                      | Y         | Y | N | N | Y | N |
| 6  | FJSVmadm:A:XXXX:kern:<br>U2-Cache correctable Error (CPU detail)    | A secondary cache 1-bit error message was found in the message log.<br>Replace XXXX.                                                                                                                      | Y         | Y | N | N | Y | N |
| 7  | FJSVmadm:A:XXXX:kern:<br>Cache/TLB Degraded (CPU detail)            | Degradation of cache/TLB has occurred.<br>Contact a certified service engineer.                                                                                                                           | Y         | Y | Y | Y | Y | Y |
| 8  | FJSVmadm:A:XXXX:kern:CPU<br>offline                                 | A CPU offline message caused by frequent secondary cache 1-bit errors on the CPU was found in the message log.<br>Replace XXXX.<br>Do not place the corresponding CPU online when this message is output. | Y         | Y | Y | Y | Y | Y |
| 9  | FJSVmadm:A:XXXX:kern:<br>CPU offline (CPU detail)                   | A CPU offline message caused by frequent secondary cache 1-bit errors on the CPU was found in the message log.<br>Replace XXXX.<br>Do not place the corresponding CPU online when this message is output. | Y         | Y | Y | Y | Y | Y |
| 10 | FJSVmadm:A:XXXX:kern:<br>CPU Urgent Error (CPU detail)              | A CPU urgent error message was found in the message log.<br>Contact a certified service engineer.                                                                                                         | N         | N | Y | Y | N | Y |
| 11 | FJSVmadm:A:XXXX:kern:<br>SBus error                                 | An Sbus error message was found in the message log.<br>Contact a certified service engineer.                                                                                                              | N         | N | N | N | Y | N |
| 12 | FJSVmadm:A:XXXX:kern:<br>PCI Data Parity error                      | A PCI data parity error message was found in the message log.<br>Replace XXXX.                                                                                                                            | N         | N | N | Y | Y | Y |
| 13 | FJSVmadm:A:XXXX:kern:<br>PCI error(Master Abort)                    | An PCI bus error message was found in the message log.<br>Contact a certified service engineer.                                                                                                           | N         | N | Y | Y | Y | Y |

| No | Message (Kern)                                                    | Explanation/Appropriate action                                                                                      | Main unit |   |   |   |   |   |
|----|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                   |                                                                                                                     | A         | B | C | D | E | F |
| 14 | FJSVmadm:A:XXXX:kern:<br>PCI error(Target Abort)                  | An PCI bus error message was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | Y | Y | Y | Y |
| 15 | FJSVmadm:A:XXXX:kern:<br>PCI error(Retry Limit)                   | An PCI bus error message was found in the message log.<br>Contact a certified service engineer.                     | N         | N | Y | Y | Y | Y |
| 16 | FJSVmadm:A:XXXX:kern:<br>PCI error<br>(Data parity error)         | An PCI bus error message was found in the message log.<br>Contact a certified service engineer.                     | N         | N | Y | Y | Y | Y |
| 17 | FJSVmadm:A:XXXX:kern:<br>PCI error(SERR)                          | An PCI bus error message was found in the message log.<br>Contact a certified service engineer.                     | N         | N | Y | Y | Y | Y |
| 18 | FJSVmadm:A:XXXX:kern:<br>PCI error<br>(Streaming byte hole error) | An PCI bus error message was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | Y | Y | Y | Y |
| 19 | FJSVmadm:A:XXXX:kern:<br>PCI bus degraded                         | A message stating that a PCI bus is detached was found in the message log.<br>Contact a certified service engineer. | N         | N | N | Y | Y | Y |
| 20 | FJSVmadm:A:XXXX:kern:<br>PCI Error                                | A PCI error message was found in the message log.<br>Contact a certified service engineer.                          | Y         | Y | Y | Y | Y | Y |
| 21 | FJSVmadm:A:XXXX:kern:<br>PCI Slot Power-on Error                  | A PCI slot power-on error message was found in the message log.<br>Replace XXXX.                                    | N         | N | Y | Y | N | Y |
| 22 | FJSVmadm:A:XXXX:kern:<br>PCI Slot Power-off Error                 | A PCI slot power-off error message was found in the message log.<br>Replace XXXX.                                   | N         | N | Y | Y | N | Y |
| 23 | FJSVmadm:A:XXXX:kern:<br>UPA bus single bit error                 | An UPA bus error message was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | N | Y | Y | Y |
| 24 | FJSVmadm:A:XXXX:kern:<br>UPA uncorrectable error                  | An UPA bus error message was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | Y | Y | Y | Y |
| 25 | FJSVmadm:A:XXXX:kern:<br>UPA bus correctable error                | An UPA bus error message was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | Y | Y | Y | Y |
| 26 | FJSVmadm:A:XXXX:kern:<br>UPA Bus Error                            | A UPA bus error message was found in the message log.<br>Contact a certified service engineer.                      | N         | N | Y | Y | N | Y |
| 27 | FJSVmadm:A:XXXX:kern:UPA<br>Bus Timeout                           | A UPA bus timeout message was found in the message log.<br>Contact a certified service engineer.                    | N         | N | Y | Y | N | Y |
| 28 | FJSVmadm:A:XXXX:kern:Bus<br>error                                 | A bus error message was found in the message log.<br>Contact a certified service engineer.                          | Y         | Y | N | Y | Y | Y |
| 29 | FJSVmadm:P:XXXX:kern:Panic                                        | A panic message was found in the message log.<br>Contact a certified service engineer.                              | Y         | Y | Y | Y | Y | N |

| No | Message (Kern)                                                     | Explanation/Appropriate action                                                                                         | Main unit |   |   |   |   |   |
|----|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                    |                                                                                                                        | A         | B | C | D | E | F |
| 30 | FJSVmadm:I:XXXX:kern:Panic                                         | A panic message was found in the message log.<br>Contact a certified service engineer.                                 | N         | N | Y | N | N | N |
| 31 | FJSVmadm:A:XXXX:kern:Occur<br>ed<br>BAD TRAP                       | A BAD TRAP message was found in the message log.<br>Contact a certified service engineer.                              | N         | N | N | N | N | N |
| 32 | FJSVmadm:A:XXXX:kern:Detecte<br>d abnormal temperature             | A thermal error message was found in the message log.<br>Contact a certified service engineer.                         | N         | N | N | N | N | N |
| 33 | FJSVmadm:A:XXXX:kern:"Messag<br>e"                                 | A hardware failure message associated with XXXX was found in the message log.<br>Contact a certified service engineer. | Y         | Y | N | N | N | N |
| 34 | FJSVmadm:A:XXXX:kern:TLB<br>Multiple Hit Error(CPU detail)         | A TLB multiple hit error message was found in the message log.<br>Contact a certified service engineer.                | N         | N | Y | Y | N | Y |
| 35 | FJSVmadm:A:XXXX:kern:TLB<br>Parity Error(CPU detail)               | A TLB parity error message was found in the message log.<br>Contact a certified service engineer.                      | N         | N | Y | Y | N | Y |
| 36 | FJSVmadm:A:XXXX:kern:<br>Correctable error                         | A correctable error of XXXX was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | Y | Y | Y | Y |
| 37 | FJSVmadm:A:XXXX:kern:<br>Correctable error<br>(DIMM size=xxxxMB)   | A message about a correctable memory error was found in the message log.<br>Contact a certified service engineer.      | Y         | Y | Y | Y | Y | Y |
| 38 | FJSVmadm:A:XXXX:kern:<br>Uncorrectable Error                       | A CPU uncorrectable error message was found in the message log.<br>Contact a certified service engineer.               | Y         | Y | Y | Y | Y | Y |
| 39 | FJSVmadm:A:XXXX:kern:<br>Uncorrectable Error<br>(CPU detail)       | A CPU uncorrectable error message was found in the message log.<br>Contact a certified service engineer.               | Y         | Y | Y | Y | Y | Y |
| 40 | FJSVmadm:A:XXXX:kern:<br>Uncorrectable Error<br>(DIMM size=xxxxMB) | A message about an uncorrectable memory error was found in the message log.<br>Contact a certified service engineer.   | Y         | Y | Y | Y | Y | Y |
| 41 | FJSVmadm:A:XXXX:kern:<br>CPU FPU Error<br>(CPU detail)             | A CPU FPU error message was found in the message log.<br>Contact a certified service engineer.                         | Y         | Y | Y | Y | Y | Y |

## Explanation of messages and appropriate action (SCF\_driver)

| No | Message (SCF_driver)                               | Explanation/Appropriate action                                                                                                                     | Main unit |   |   |   |   |   |
|----|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                    |                                                                                                                                                    | A         | B | C | D | E | F |
| 1  | FJSVmadm:A:SB:scf_driver:<br>Ebus Timeout          | Ebus timeout has occurred.<br>Contact a certified service engineer.                                                                                | N         | N | Y | N | N | N |
| 2  | FJSVmadm:A:SCF:scf_driver:<br>Ebus2 Timeout        | An IOCHRDY timeout (Ebus2 T.O) message<br>was found in the message log.<br>Contact a certified service engineer.                                   | N         | N | N | Y | Y | Y |
| 3  | FJSVmadm:A:SCF:scf_driver:<br>Ebus2 DMA Error      | A host bus error message of Ebus2 DMA was<br>found in the message log.<br>Contact a certified service engineer.                                    | N         | N | N | Y | Y | Y |
| 4  | FJSVmadm:A:SB:scf_driver:<br>SCF command error     | The SCF command has returned abnormally.<br>Contact a certified service engineer.                                                                  | N         | N | Y | N | N | N |
| 5  | FJSVmadm:A:SB:scf_driver:<br>SCF HALT              | All the SCF devices have stopped.<br>Contact a certified service engineer.                                                                         | N         | N | Y | N | N | N |
| 6  | FJSVmadm:A:SCF:scf_driver:<br>Sumcheck Error       | A sumcheck error message was found in the<br>message log.<br>Contact a certified service engineer.                                                 | N         | N | N | Y | Y | Y |
| 7  | FJSVmadm:A:SB:scf_driver:<br>Sum check Error       | A sumcheck error was detected in the<br>received data of the SCF command.<br>Contact a certified service engineer.                                 | N         | N | Y | N | N | N |
| 8  | FJSVmadm:A:SB:scf_driver:<br>Parity Error          | A parity error occurred during the register<br>read operation.<br>Contact a certified service engineer.                                            | N         | N | Y | N | N | N |
| 9  | FJSVmadm:A:RCI_address:<br>scf_driver:device sense | An RCI device was notified of sense<br>information that is not supported or defined<br>by the SCF driver.<br>Contact a certified service engineer. | N         | N | Y | N | N | N |
| 10 | FJSVmadm:A:SCF:scf_driver:<br>Command Timeout      | A command timeout message was found in<br>the message log.<br>Contact a certified service engineer.                                                | N         | N | N | Y | Y | Y |
| 11 | FJSVmadm:A:SCF:scf_driver:<br>offline              | An offline message was found in the message<br>log.<br>Contact a certified service engineer.                                                       | N         | N | N | Y | Y | Y |

## Explanation of messages and appropriate action (FJSVcpupd)

| No | Message (FJSVcpupd)                    | Explanation/Appropriate action                                                                                                                                   | Main unit |   |   |   |   |   |
|----|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                        |                                                                                                                                                                  | A         | B | C | D | E | F |
| 1  | FJSVmadm:A:XXXX:FJSVcpupd<br>"Message" | A CPU error was detected by CPU patrol diagnosis.<br>For more information, refer to "Abnormal CPU detection message," in the CPU Patrol Diagnosis User's Guide . | N         | Y | N | Y | Y | Y |

## Explanation of messages and appropriate action (IO-related)

| No | Message (IO-related)                                                                                          | Explanation/Appropriate action                                                                                                                                                                     | Main unit |   |   |   |   |   |
|----|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                               |                                                                                                                                                                                                    | A         | B | C | D | E | F |
| 1  | FJSVmadm:A:XXXX:sd:<br>incomplete Read/Write                                                                  | A message stating that the read (or write) command ended abnormally and a retry failed was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 2  | FJSVmadm:A:XXXX:sd:<br>incomplete Read/Write<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)                 | A message stating that the read (or write) command ended abnormally and a retry failed was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 3  | FJSVmadm:A:XXXX:sd:<br>SCSI transport failed                                                                  | A SCSI transfer error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.                                                          | Y         | Y | Y | Y | Y | Y |
| 4  | FJSVmadm:A:XXXX:sd:<br>SCSI transport failed<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)                 | A SCSI transfer error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                                                                  | Y         | Y | Y | Y | Y | Y |
| 5  | FJSVmadm:A:XXXX:sd:<br>Device Error(Not Ready)                                                                | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.                                                                 | Y         | Y | Y | Y | Y | Y |
| 6  | FJSVmadm:A:XXXX:sd:<br>Device Error(Not Ready)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)               | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                                                                         | Y         | Y | Y | Y | Y | Y |
| 7  | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Recoverable Error)                                                    | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.                                                                 | Y         | Y | Y | Y | Y | Y |
| 8  | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Recoverable Error)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)   | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                                                                         | Y         | Y | Y | Y | Y | Y |
| 9  | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(No Additional Sense)                                                  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.                                                                 | Y         | Y | Y | Y | Y | Y |
| 10 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(No Additional Sense) (DRIVE<br>vendor=XXXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                                                                         | Y         | Y | Y | Y | Y | Y |

| No | Message (IO-related)                                                                                       | Explanation/Appropriate action                                                                                                     | Main unit |   |   |   |   |   |
|----|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                            |                                                                                                                                    | A         | B | C | D | E | F |
| 11 | FJSVmadm:A:XXXX:sd:<br>Device Error (Media Error)                                                          | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 12 | FJSVmadm:A:XXXX:sd:<br>Device Error(Media Error)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)          | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 13 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Hardware Error)                                                    | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 14 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Hardware Error)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)   | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 15 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Aborted Command)                                                   | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 16 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Aborted Command)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 17 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Illegal Request)                                                   | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 18 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Illegal Request)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 19 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Miscompare Error)                                                  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 20 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Miscompare Error)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |

| No | Message (IO-related)                                                                                      | Explanation/Appropriate action                                                                                                     | Main unit |   |   |   |   |   |
|----|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                           |                                                                                                                                    | A         | B | C | D | E | F |
| 21 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Volume Overflow)                                                  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 22 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Volume Overflow)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 23 | FJSVmadm:A:XXXX:sd:<br>Device Error (Blank Check)                                                         | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 24 | FJSVmadm:A:XXXX:sd:<br>Device Error (Blank Check)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)        | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 25 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Write Protected)                                                  | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 26 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Write Protected)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX) | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 27 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Unit Attention)                                                   | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 28 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(Unit Attention)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)  | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 29 | FJSVmadm:A:XXXX:sd:<br>Device Error                                                                       | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 30 | FJSVmadm:A:XXXX:sd:<br>Device Error<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)                      | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 31 | FJSVmadm:A:XXXX:sd:<br>offline                                                                            | Access to an I/O device failed.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.           | Y         | Y | Y | Y | Y | Y |
| 32 | FJSVmadm:A:XXXX:sd:<br>offline<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)                           | Access to an I/O device failed.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.           | Y         | Y | Y | Y | Y | Y |

| No | Message (IO-related)                                                                            | Explanation/Appropriate action                                                                                                                                                      | Main unit |   |   |   |   |   |
|----|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                 |                                                                                                                                                                                     | A         | B | C | D | E | F |
| 33 | FJSVmadm:A:XXXX:sd:<br>disk not responding                                                      | A nonresponse message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                                  | Y         | Y | Y | Y | Y | Y |
| 34 | FJSVmadm:A:XXXX:sd:<br>disk not responding<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)      | A nonresponse message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                                  | Y         | Y | Y | Y | Y | Y |
| 35 | FJSVmadm:A:XXXX:sd:<br>transport failed                                                         | A transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                               | N         | N | N | Y | N | Y |
| 36 | FJSVmadm:A:XXXX:sd:<br>transport failed<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)         | A transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                               | N         | N | N | Y | N | Y |
| 37 | FJSVmadm:A:XXXX:ssd:<br>incomplete Read/Write                                                   | A message stating that the read (or write) command ended abnormally and a retry failed was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 38 | FJSVmadm:A:XXXX:ssd:<br>incomplete Read/Write (DRIVE<br>vendor=XXXXXX,<br>product=XXXXXXXXXX)   | A message stating that the read (or write) command ended abnormally and a retry failed was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 39 | FJSVmadm:A:XXXX:ssd:<br>SCSI transport failed                                                   | A SCSI transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                          | N         | N | N | N | N | N |
| 40 | FJSVmadm:A:XXXX:ssd:<br>SCSI transport failed<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)   | A SCSI transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                          | N         | N | N | N | N | N |
| 41 | FJSVmadm:A:XXXX:ssd:<br>Device Error (Not Ready)                                                | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                                 | N         | N | N | N | N | N |
| 42 | FJSVmadm:A:XXXX:ssd:<br>Device Error(Not Ready)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                                 | N         | N | N | N | N | N |
| 43 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Recoverable Error)                                     | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                                                 | N         | N | N | N | N | N |

| No | Message (IO-related)                                                                                          | Explanation/Appropriate action                                                                                      | Main unit |   |   |   |   |   |
|----|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                               |                                                                                                                     | A         | B | C | D | E | F |
| 44 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Recoverable Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)   | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 45 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(No Additional Sense)                                                 | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 46 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(No Additional Sense) (DRIVE<br>vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 47 | FJSVmadm:A:XXXX:ssd:<br>Device Error (Media Error)                                                            | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 48 | FJSVmadm:A:XXXX:ssd:<br>Device Error (Media Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)            | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 49 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Hardware Error)                                                      | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 50 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Hardware Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)      | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 51 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Aborted Command)                                                     | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 52 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Aborted Command)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)     | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 53 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Illegal Request)                                                     | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |

| No | Message (IO-related)                                                                                       | Explanation/Appropriate action                                                                                        | Main unit |   |   |   |   |   |
|----|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                            |                                                                                                                       | A         | B | C | D | E | F |
| 54 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Illegal Request)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)  | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 55 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Miscompare Error)                                                 | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 56 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Miscompare Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 57 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Volume Overflow)                                                  | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 58 | FJSVmadm:A:XXXX:ssd:<br>Device Error<br>(Volume Overflow)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)  | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 59 | FJSVmadm:A:XXXX:ssd:<br>Device Error (Blank Check)                                                         | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 60 | FJSVmadm:A:XXXX:ssd:<br>Device Error (Blank Check)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)         | A device error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.   | N         | N | N | N | N | N |
| 61 | FJSVmadm:A:XXXX:ssd:<br>disk not responding                                                                | A nonresponse message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.    | N         | N | N | N | N | N |
| 62 | FJSVmadm:A:XXXX:ssd:<br>disk not responding<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                | A nonresponse message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.    | N         | N | N | N | N | N |
| 63 | FJSVmadm:A:XXXX:ssd:<br>transport failed                                                                   | A transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |
| 64 | FJSVmadm:A:XXXX:ssd:<br>transport failed<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                   | A transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX. | N         | N | N | N | N | N |

| No | Message (IO-related)                                                                                          | Explanation/Appropriate action                                                                                                                 | Main unit |   |   |   |   |   |
|----|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                               |                                                                                                                                                | A         | B | C | D | E | F |
| 65 | FJSVmadm:A:XXXX:hddv:<br>device error (degraded)                                                              | A device error message was found in the message log.<br>Replace the part of the disk array unit of XXXX.                                       | Y         | Y | Y | Y | Y | Y |
| 66 | FJSVmadm:A:XXXX:hddv:<br>device error (degraded)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)             | A device error message was found in the message log.<br>Replace the part of the disk array unit.                                               | Y         | Y | Y | Y | Y | Y |
| 67 | FJSVmadm:A:XXXX:hddv:<br>incomplete Read/Write                                                                | A read/write command error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 68 | FJSVmadm:A:XXXX:hddv:<br>incomplete Read/Write<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)               | A read/write command error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 69 | FJSVmadm:A:XXXX:hddv:<br>SCSI transport failed                                                                | A SCSI transfer error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.      | Y         | Y | Y | Y | Y | Y |
| 70 | FJSVmadm:A:XXXX:hddv:<br>SCSI transport failed<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)               | A SCSI transfer error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.              | Y         | Y | Y | Y | Y | Y |
| 71 | FJSVmadm:A:XXXX:hddv:<br>Device Error (Not Ready)                                                             | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.             | Y         | Y | Y | Y | Y | Y |
| 72 | FJSVmadm:A:XXXX:hddv:<br>Device Error (Not Ready)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX)            | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                     | Y         | Y | Y | Y | Y | Y |
| 73 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Recoverable Error)                                                  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.             | Y         | Y | Y | Y | Y | Y |
| 74 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Recoverable Error)<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                     | Y         | Y | Y | Y | Y | Y |
| 75 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(No Additional Sense)                                                | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.             | Y         | Y | Y | Y | Y | Y |

| No | Message (IO-related)                                                                                           | Explanation/Appropriate action                                                                                                     | Main unit |   |   |   |   |   |
|----|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                                |                                                                                                                                    | A         | B | C | D | E | F |
| 76 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(No Additional Sense)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 77 | FJSVmadm:A:XXXX:hddv:<br>Device Error (Media Error)                                                            | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 78 | FJSVmadm:A:XXXX:hddv:<br>Device Error (Media Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)            | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 79 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Hardware Error)                                                      | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 80 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Hardware Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)      | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 81 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Aborted Command)                                                     | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 82 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Aborted Command)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)     | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 83 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Illegal Request)                                                     | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 84 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Illegal Request)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)     | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 85 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Miscompare Error)                                                    | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |

| No | Message (IO-related)                                                                                        | Explanation/Appropriate action                                                                                                     | Main unit |   |   |   |   |   |
|----|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                             |                                                                                                                                    | A         | B | C | D | E | F |
| 86 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Miscompare Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 87 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Volume Overflow)                                                  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 88 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Volume Overflow)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)  | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 89 | FJSVmadm:A:XXXX:hddv:<br>Device Error (Blank Check)                                                         | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 90 | FJSVmadm:A:XXXX:hddv:<br>Device Error (Blank Check)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)         | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 91 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Write Protected)                                                  | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 92 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Write Protected)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)  | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 93 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Unit Attention)                                                   | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 94 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(Unit Attention)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)   | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 95 | FJSVmadm:A:XXXX:hddv:<br>Device Error                                                                       | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |
| 96 | FJSVmadm:A:XXXX:hddv:<br>Device Error<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                       | An I/O device failure was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.       | Y         | Y | Y | Y | Y | Y |

| No  | Message (IO-related)                                                                                         | Explanation/Appropriate action                                                                                                            | Main unit |   |   |   |   |   |
|-----|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|     |                                                                                                              |                                                                                                                                           | A         | B | C | D | E | F |
| 97  | FJSVmadm:A:XXXX:hddv:<br>offline                                                                             | Access to the disk array unit failed.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.            | Y         | Y | Y | Y | Y | Y |
| 98  | FJSVmadm:A:XXXX:hddv:<br>offline<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                             | Access to the disk array unit failed.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.            | Y         | Y | Y | Y | Y | Y |
| 99  | FJSVmadm:A:XXXX:hddv:<br>disk not responding                                                                 | A nonresponse message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                        | Y         | Y | Y | Y | Y | Y |
| 100 | FJSVmadm:A:XXXX:hddv:<br>disk not responding<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                 | A nonresponse message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                        | Y         | Y | Y | Y | Y | Y |
| 101 | FJSVmadm:A:XXXX:st:<br>SCSI transport failed                                                                 | A SCSI transfer error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX. | Y         | Y | Y | Y | Y | Y |
| 102 | FJSVmadm:A:XXXX:st:<br>SCSI transport failed<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                 | A SCSI transfer error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.         | Y         | Y | Y | Y | Y | Y |
| 103 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Rewind failed)                                                       | A device error message was found in the message log.<br>Replace the SCSI unit of XXXX.                                                    | Y         | Y | Y | Y | Y | Y |
| 104 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Rewind failed)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)       | A device error message was found in the message log.<br>Replace the SCSI unit.                                                            | Y         | Y | Y | Y | Y | Y |
| 105 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Unrecoverable Error)                                                 | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.        | Y         | Y | Y | Y | Y | Y |
| 106 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Unrecoverable Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log. Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter.                   | Y         | Y | Y | Y | Y | Y |
| 107 | FJSVmadm:A:XXXX:st:<br>Device Recoverable Error<br>(Illegal Request)                                         | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter of XXXX.        | Y         | Y | Y | Y | Y | Y |

| No  | Message (IO-related)                                                                                                 | Explanation/Appropriate action                                                                                             | Main unit |   |   |   |   |   |
|-----|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|     |                                                                                                                      |                                                                                                                            | A         | B | C | D | E | F |
| 108 | FJSVmadm:A:XXXX:st:<br>Device Recoverable Error<br>(Illegal Request)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter. | Y         | Y | Y | Y | Y | Y |
| 109 | FJSVmadm:A:XXXX:st:<br>Device Error (Media Error)                                                                    | A device error message was found in the message log.<br>Replace the medium of XXXX.                                        | Y         | Y | Y | Y | Y | Y |
| 110 | FJSVmadm:A:XXXX:st:<br>Device Error (Media Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)                    | A device error message was found in the message log.<br>Replace the medium.                                                | Y         | Y | Y | Y | Y | Y |
| 111 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Hardware Error)                                                              | A device error message was found in the message log.<br>Check the status of the SCSI unit of XXXX.                         | Y         | Y | Y | Y | Y | Y |
| 112 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Hardware Error)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)              | A device error message was found in the message log.<br>Check the status of the SCSI unit.                                 | Y         | Y | Y | Y | Y | Y |
| 113 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Aborted Command)                                                             | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter. | Y         | Y | Y | Y | Y | Y |
| 114 | FJSVmadm:A:XXXX:st:<br>Device Error<br>(Aborted Command)<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX)             | A device error message was found in the message log.<br>Check the statuses of the SCSI cable, SCSI unit, and SCSI adapter. | Y         | Y | Y | Y | Y | Y |
| 115 | FJSVmadm:A:XXXX:glm:<br>offline                                                                                      | An XXXX offline message was found in the message log.<br>Contact a certified service engineer.                             | Y         | Y | Y | Y | Y | Y |
| 116 | FJSVmadm:A:XXXX:isp:<br>adapter offline                                                                              | An XXXX adapter offline message was found in the message log.<br>Contact a certified service engineer.                     | Y         | Y | Y | Y | Y | Y |
| 117 | FJSVmadm:A:XXXX:isp:<br>Hard Error                                                                                   | A hardware failure message associated with XXXX was found in the message log.<br>Contact a certified service engineer.     | N         | N | N | Y | N | Y |
| 118 | FJSVmadm:A:XXXX:fcpcfd:<br>PCI Error                                                                                 | A cipher processor card error message was found in the message log.<br>Replace the cipher processor card of XXXX.          | Y         | Y | Y | Y | Y | Y |
| 119 | FJSVmadm:A:XXXX:fcpcfd:<br>Adapter Hard Error                                                                        | A cipher processor card error message was found in the message log.<br>Replace the cipher processor card of XXXX.          | Y         | Y | Y | Y | Y | Y |
| 120 | FJSVmadm:A:XXXX:MPHD:<br>Raid controller error                                                                       | A disk path error message was found in the message log.<br>Replace the disk array controller of XXXX.                      | Y         | Y | Y | Y | Y | Y |

| No  | Message (IO-related)                                                                           | Explanation/Appropriate action                                                                                                                               | Main unit |   |   |   |   |   |
|-----|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|     |                                                                                                |                                                                                                                                                              | A         | B | C | D | E | F |
| 121 | FJSVmadm:A:XXXX:MPHD:<br>Raid controller error<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A disk path error message was found in the message log.<br>Replace the disk array controller.                                                                | Y         | Y | Y | Y | Y | Y |
| 122 | FJSVmadm:A:XXXX:MPHD:<br>all paths failed                                                      | A redundant path was used but access to the disk array unit failed.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer. | Y         | Y | Y | Y | Y | Y |
| 123 | FJSVmadm:A:XXXX:MPHD:<br>SCSI transport failed                                                 | A SCSI transfer error was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.                                 | Y         | Y | Y | Y | Y | Y |
| 124 | FJSVmadm:A:XXXX:MPHD:<br>SCSI transport failed<br>(DRIVE vendor=XXXXXX,<br>product=XXXXXXXXXX) | A SCSI transfer error was detected.<br>A hardware failure is assumed to have occurred. Contact a certified service engineer.                                 | Y         | Y | Y | Y | Y | Y |
| 125 | FJSVmadm:A:XXXX:fjpfca:<br>Adapter Hard Error                                                  | An adapter hard error message was found in the message log.<br>Replace the adapter of XXXX.                                                                  | Y         | Y | Y | Y | Y | Y |
| 126 | FJSVmadm:A:XXXX:fjpfca:<br>PCI Error                                                           | A PCI error message was found in the message log.<br>Check the statuses of the system board and adapter of XXXX.                                             | Y         | Y | Y | Y | Y | Y |
| 127 | FJSVmadm:A:XXXX:fjpfca:<br>Adapter Error                                                       | An adapter error message was found in the message log.<br>Replace the adapter of XXXX.                                                                       | Y         | Y | Y | Y | Y | Y |
| 128 | FJSVmadm:A:XXXX:fjpfca:<br>Device Error                                                        | A device error message was found in the message log.<br>Check the status of the connected XXXX devices.                                                      | Y         | Y | Y | Y | Y | Y |
| 129 | FJSVmadm:A:XXXX:sf:<br>transport failed                                                        | A transfer error message was found in the message log.<br>Check the statuses of the cable, unit, and adapter of XXXX.                                        | N         | N | N | Y | N | Y |
| 130 | FJSVmadm:A:XXXX:soc:<br>offline                                                                | An XXXX offline message was found in the message log.<br>Contact a certified service engineer.                                                               | N         | N | N | N | N | N |
| 131 | FJSVmadm:A:XXXX:hme:<br>offline                                                                | An offline message was found in the message log.<br>Replace the adapter of XXXX.                                                                             | Y         | Y | Y | Y | Y | Y |
| 132 | FJSVmadm:A:XXXX:se:<br>offline                                                                 | An offline message was found in the message log.<br>Replace the system board of XXXX.                                                                        | Y         | Y | Y | Y | Y | Y |
| 133 | FJSVmadm:A:XXXX:wpcd:<br>Adapter Hard Error                                                    | An adapter hard error message was found in the message log.<br>Replace the adapter of XXXX.                                                                  | Y         | Y | Y | Y | Y | Y |

| No  | Message (IO-related)                                                                 | Explanation/Appropriate action                                                                                                                                                                                                       | Main unit |   |   |   |   |   |
|-----|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|     |                                                                                      |                                                                                                                                                                                                                                      | A         | B | C | D | E | F |
| 134 | FJSVmadm:A:XXXX:sfdsk:<br>"Message"                                                  | A SynfinityDISK error message was found in the message log.<br>For details, refer to "SynfinityDisk Messages" in the SynfinityDISK Guide.                                                                                            | Y         | Y | Y | Y | Y | Y |
| 135 | FJSVmadm:A:XXXX:sfdsk:<br>"Message"<br>(DRIVE vendor=XXXXXXX,<br>product=XXXXXXXXXX) | A SynfinityDISK error message was found in the message log.<br>For details, refer to "SynfinityDisk Messages" in the SynfinityDISK Guide.                                                                                            | Y         | Y | Y | Y | Y | Y |
| 136 | FJSVmadm:A:XXXX:nf:<br>Adapter Hard Error                                            | An adapter hard error message was found in the message log.<br>Replace the adapter of XXXX.                                                                                                                                          | N         | N | N | N | N | N |
| 137 | FJSVmadm:A:TimerUnit:<br>stimed:Timer unit error<br>(Hardware Error)                 | The timer unit connected to host_name failed. A timer unit error message was found in the message log.<br>Replace the timer unit.                                                                                                    | Y         | Y | Y | Y | N | N |
| 138 | FJSVmadm:X:XXXX:XXXX<br>(add-on): "Message"                                          | A message associated with additional monitoring was found in the message log.<br>For more information, see the HTML file in the following directory of the corresponding device.<br><br>/var/opt/FJSVmadm/manual/japanese/index.html | Y         | Y | Y | Y | Y | Y |

## Explanation of messages and appropriate action (firmware-related)

| No | Message (firmware-related)                                                                                              | Explanation/Appropriate action                                                    | Main unit |   |   |   |   |   |
|----|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                                         |                                                                                   | A         | B | C | D | E | F |
| 1  | FJSVmadm:X:XXXX:Firm:<br>Detected failure on the System Board occurred at MMM DD hh:mm:ss TZ                            | A system board error was found.<br>Contact a certified service engineer.          | N         | N | Y | N | N | N |
| 2  | FJSVmadm:X:XXXX:SCF:<br>Detected failure on the fan occurred at MMM DD hh:mm:ss TZ                                      | A fan error was found.<br>Contact a certified service engineer.                   | N         | N | Y | N | N | N |
| 3  | FJSVmadm:X:XXXX:SCF:<br>Detected failure on the power supply unit occurred at MMM DD hh:mm:ss TZ                        | A power error was found.<br>Contact a certified service engineer.                 | N         | N | Y | N | N | N |
| 4  | FJSVmadm:X:XXXX:Firm:<br>Detected failure on the CPU (CPU type=X, freq=XXXXMHz, Rev=X.X) occurred at MMM DD hh:mm:ss TZ | A CPU error was found.<br>Contact a certified service engineer.                   | N         | N | Y | N | N | N |
| 5  | FJSVmadm:X:XXXX:Firm:<br>U2-Cache correctable Error (CPU type=X, freq=XXXXMHz, Rev=X.X) occurred at MMM DD hh:mm:ss TZ  | A secondary cache 1-bit error was found.<br>Contact a certified service engineer. | N         | N | Y | N | N | N |
| 6  | FJSVmadm:X:XXXX:SCF:<br>Detected failure on the RCI node occurred at MMM DD hh:mm:ss TZ                                 | An RCI node error was found.<br>Contact a certified service engineer.             | N         | N | Y | N | N | N |
| 7  | FJSVmadm:X:XXXX:SCF:<br>Detected failure on the PANEL occurred at MMM DD hh:mm:ss TZ                                    | A panel error was found.<br>Contact a certified service engineer.                 | N         | N | Y | N | N | N |
| 8  | FJSVmadm:X:XXXX:Firm:<br>Detected failure on the PCI card occurred at MMM DD hh:mm:ss TZ                                | A PCI card error was found.<br>Contact a certified service engineer.              | N         | N | Y | N | N | N |
| 9  | FJSVmadm:X:XXXX:SCF:<br>UPS failure occurred at MMM DD hh:mm:ss TZ                                                      | A UPS error was found.<br>Contact a certified service engineer.                   | N         | N | Y | N | N | N |
| 10 | FJSVmadm:X:XXXX:Firm:<br>Detected failure on the memory module occurred at MMM DD hh:mm:ss TZ                           | A memory error was found.<br>Contact a certified service engineer.                | N         | N | Y | N | N | N |
| 11 | FJSVmadm:X:XXXX:Firm:<br>Memory correctable error occurred at MMM DD hh:mm:ss TZ                                        | A memory bit error was found.<br>Contact a certified service engineer.            | N         | N | Y | N | N | N |

| No | Message (firmware-related)                                                                                  | Explanation/Appropriate action                                                                                                  | Main unit |   |   |   |   |   |
|----|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------|---|---|---|---|---|
|    |                                                                                                             |                                                                                                                                 | A         | B | C | D | E | F |
| 12 | FJSVmadm:I:XXXX:Firm:<br>Notification ("Message")<br>occurred at MMM DD hh:mm:<br>ss TZ                     | A message was reported.                                                                                                         | N         | N | Y | N | N | N |
| 13 | FJSVmadm:X:XXXX:SCF:<br>Detected abnormality of<br>environment occurred at<br>MMM DD hh:mm:ss TZ            | An environment error was found.<br>Check the log to confirm no thermal error has<br>occurred, and then improve the environment. | N         | N | Y | N | N | N |
| 14 | FJSVmadm:X:XXXX:Firm:<br>DTAG correctable error<br>occurred at MMM DD hh:mm:<br>ss TZ                       | A DTAG1 bit error was found.<br>Contact a certified service engineer.                                                           | N         | N | Y | N | N | N |
| 15 | FJSVmadm:X:XXXX:Firm:<br>Hardware configuration<br>error occurred at<br>MMM DD hh:mm:ss TZ                  | A hardware configuration error occurred.<br>Contact a certified service engineer.                                               | N         | N | Y | N | N | N |
| 16 | FJSVmadm:X:XXXX:Firm:<br>Cache/TLB Degrade occurred<br>at MMM DD hh:mm:ss TZ                                | Cache/TLB has been degraded.<br>Contact a certified service engineer.                                                           | N         | N | Y | N | N | N |
| 17 | FJSVmadm:X:XXXX:Firm:<br>Detected hardware error<br>occurred at MMM DD hh:ss TZ                             | A hardware error occurred.<br>Contact a certified service engineer.                                                             | N         | N | Y | N | N | N |
| 18 | FJSVmadm:X:XXXX:Firm:<br>Notification<br>(Parts Status Reset Failure)<br>occurred at MMM DD hh:mm:<br>ss TZ | Status reset failed due to recurring part<br>failures.<br>Replace the part and then reset the status<br>again.                  | N         | N | Y | N | N | N |
| 19 | FJSVmadm:X:TEST:Firm:<br>Notification<br>(This is a TEST log) occurred at<br>MMM DD hh:mm:<br>ss TZ         | A test error log is reported.                                                                                                   | N         | N | Y | N | N | N |
| 20 | FJSVmadm:A:XXXX:SCF:<br>Setup Data Lost                                                                     | Setting data held in SCF has been lost.<br>Contact a certified service engineer.                                                | N         | N | N | Y | N | N |

\* One of *Firm*:SCF/POST/OBP is displayed.

---

## Appendix A Overall Configuration Diagrams

---

This appendix describes overall configuration diagrams using the PRIMEPOWER series as an example. The machines of the PRIMEPOWER series can be operated in one of two operation patterns, depending on the model.

1. Operation from the main unit only

The following models of the PRIMEPOWER series are operated only from the main unit.

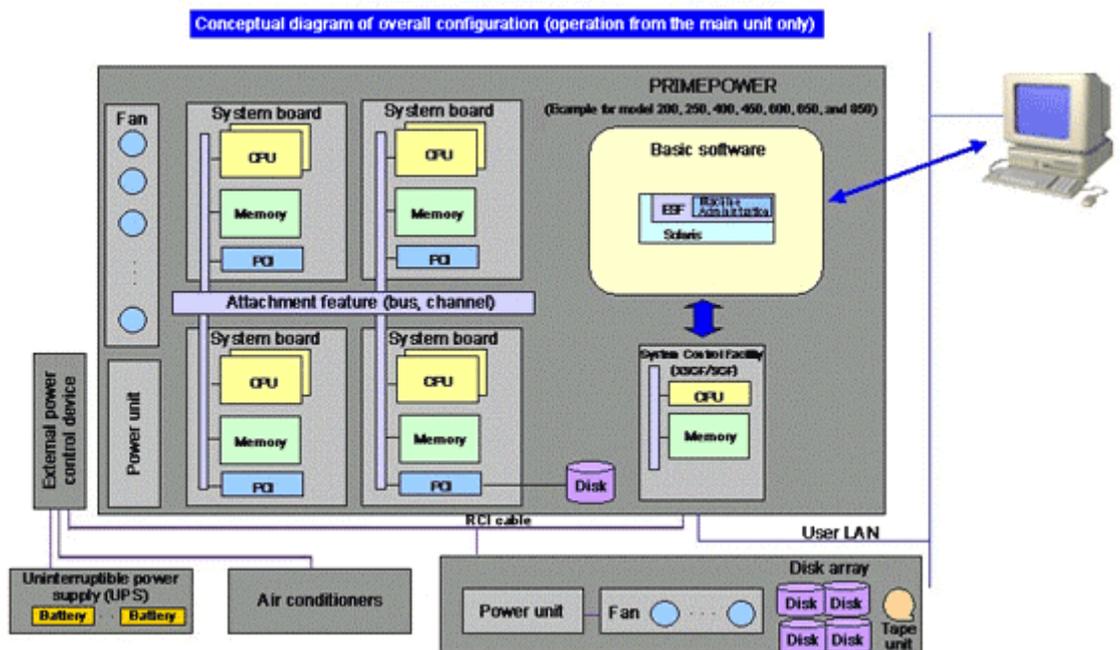
PRIMEPOWER 1/200/250/400/450/600/650/850

GP7000F model 200/200R/400/400R/400A/600/600R

The figure below shows operation only from the main unit.

In this operation pattern, all computing resources of the main unit (e.g., CPU, memory, PCI unit) of the main unit are used as those of a single server.

An RCI cable cannot be connected to PRIMEPOWER1 model.



## Appendix A Overall Configuration Diagrams

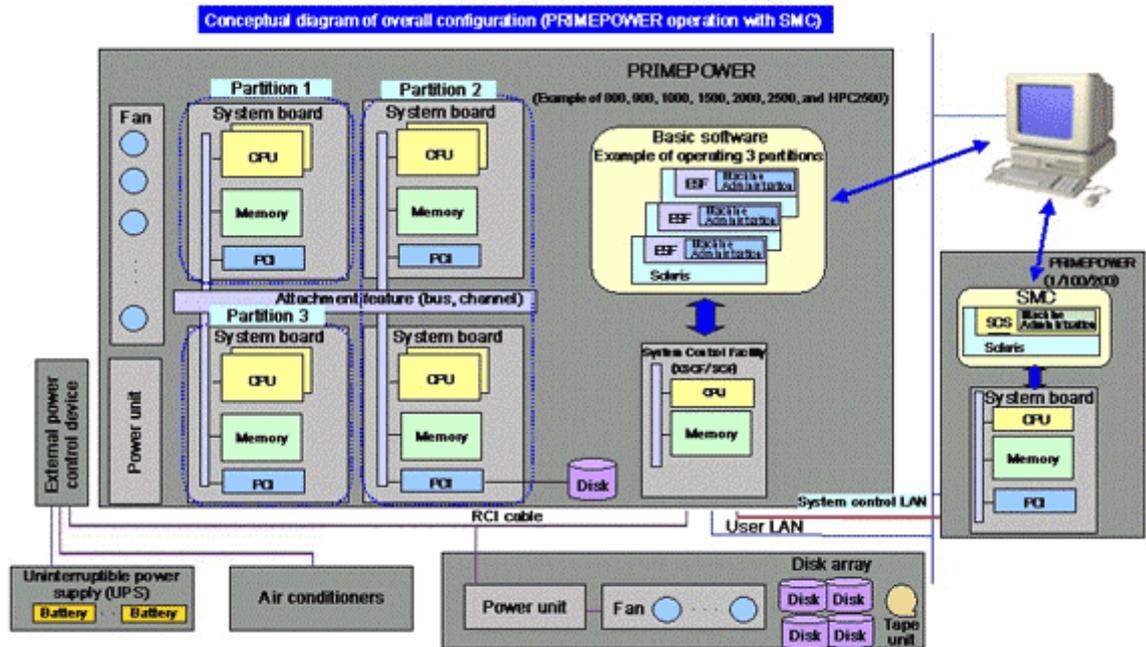
### 2. Operation from the main unit and a System Management Console (SMC)

The following models of the PRIMEPOWER series are operated from the main unit and a SMC.  
PRIMEPOWER 800/900/1000/1500/2000/2500/HPC2500, GP7000F model 1000/2000

The figure below shows operation from the main unit and an SMC.

In this operation pattern, main unit resources are divided into several partitions and each partition is operated as a single server. SMC manages several servers through centralized control.

In operation from a main unit and SMC, the resources started in partition units and those started by SMC functionally complement each other.



The following explains the components that appear in the above figures.

- SMC : PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500 and GP7000F model 1000/2000 require an SMC.  
 Use PRIMEPOWER1/200/250 as the base platform.  
 The main unit and SMC are connected by a system control LAN and a user LAN. The system control LAN connects the "System Control Facility" to the SMC.  
 On the SMC, "Machine Administration" included in the SCS monitors all hardware components and partitions in cooperation with the System Control Facility. To use "Machine Administration," log in to the SMC (Solaris) from the terminal connected to the SCS via the user LAN.
-   
**Note**  
 PRIMEPOWER250 can be used as the base platform from SCS2.3 and later.
- External power control device : Controls power supply to the main unit, the UPS, and the power supplies of air conditioners, etc.
- Machine Administration : This software is included in ESF and monitors all hardware components in cooperation with the System Control Facility. To use "Machine Administration," log in to Solaris from the terminal connected to the main unit via the user LAN.
- System Control Facility : The System Control Facility functions monitors the entire hardware system, including the main unit and externally connected devices. It is a single-board configuration with a dedicated CPU and memory. It monitors the errors that occur in CPUs, memories, PCI units, disks, fans, batteries, etc.
- System board : The system board is equivalent to a personal computer's motherboard. Several CPUs, memories, and PCI slots are mounted on the system board; they are connected by a bus. The types and number of CPUs mounted on one system board, memory capacity, and the number of PCI slots depend on the main unit model. Several system boards serve as a basic part in that they function as a single computer. Internal disks, the disk arrays housed in a cabinet different from the cabinet in which the main unit is housed, and tape units can be connected from PCI slots. System boards are connected by the attachment feature (bus and channel).
- Power unit : Power supply unit with a converter (AC to DC).
- Fan : Device that cools the inside of a cabinet.



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## **Appendix B    Disk Drive Replacement**

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This appendix describes how to use the menu for displaying guidance information on disk drive replacement.

## **B.1 Outline of disk drive replacement**

Disk drive replacement is classified into two modes: one is "fault replacement" for replacing faulty disks and one is "preventive replacement" for replacing disks before they become faulty.

The disk drive replacement menu provides guidance information for replacing and mounting disk drives in these modes.

The Machine Administration menu provides the disk drive replacement function with the following menu items:

- The Faulty Hard Disk Drive Replacement (Hot Swap)  
Allows replacement of disk drives without stopping system operation.
- Preventive Maintenance of the Hard Disk Drive (Hot Swap)  
Allows preventive replacement of disk drives based on checking the frequency of errors, such as retries, that have occurred previously.  
Allows hot swapping without stopping system operation.
- Include the Hard Disk Drive after the Cold Maintenance  
Displays guidance information for resetting data and the operation of mounting in SynfinityDISK/GDS after replacement was performed with system operation stopped.

The following sections describe how to perform replacement using these menu items.

## B.2 Flow of Fault Replacement

Replacement of a faulty disk drive is performed in the following three steps:

- Unmounting the faulty disk from the system
- Replacing the disk
- Mounting the new disk on the system

### B.2.1 Unmounting disks

The following two steps of the unmount operation must be performed to enable disk replacement:

1. Logical unmounting for preventing the volume management software and OS from using the relevant disk
2. Electrical disconnection for stopping disk rotation and enabling physical removal

In addition to the above, Machine Administration must be notified that the relevant disks can be replaced physically.

Machine Administration manages a list of disks reported to it as being swappable, to prevent the erroneous replacement of disks not included in the list.

The unmount operation varies depending on whether SynfinityDisk or PRIMECLUSTER GDS (GDS), or other volume management software (Solstice™ DiskSuite, VERITAS™ Volume Manager, etc.) is used.

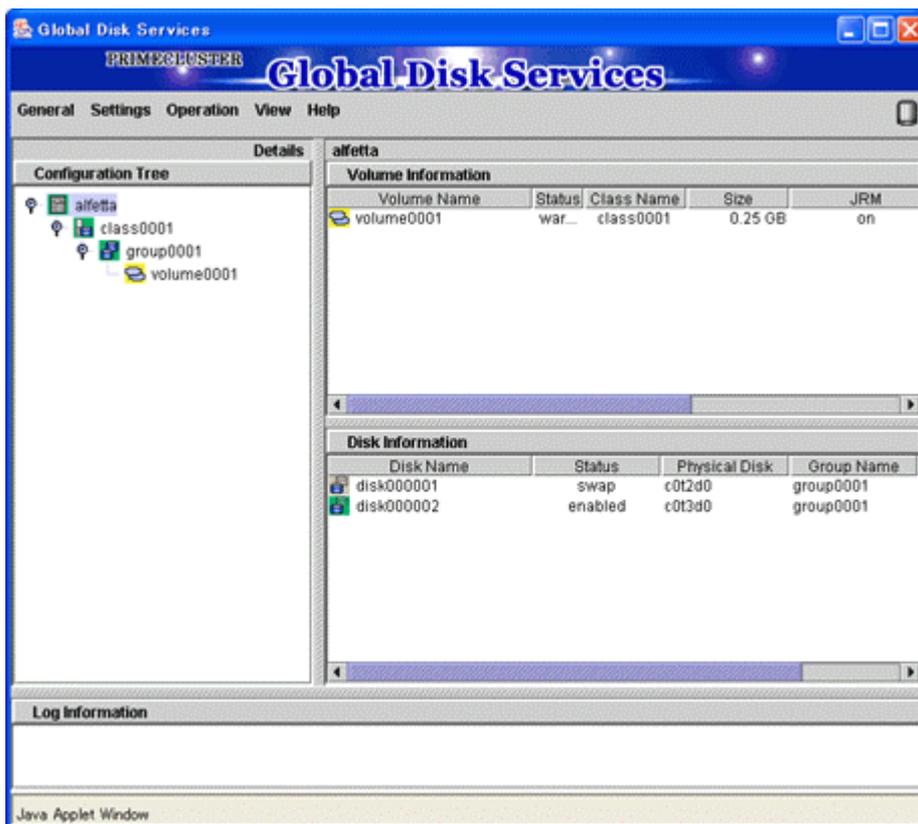
#### B.2.1.1 When using SynfinityDisk/GDS

When using SynfinityDisk/GDS, the following four disk unmount modes are available and can be selected according to the operating mode.

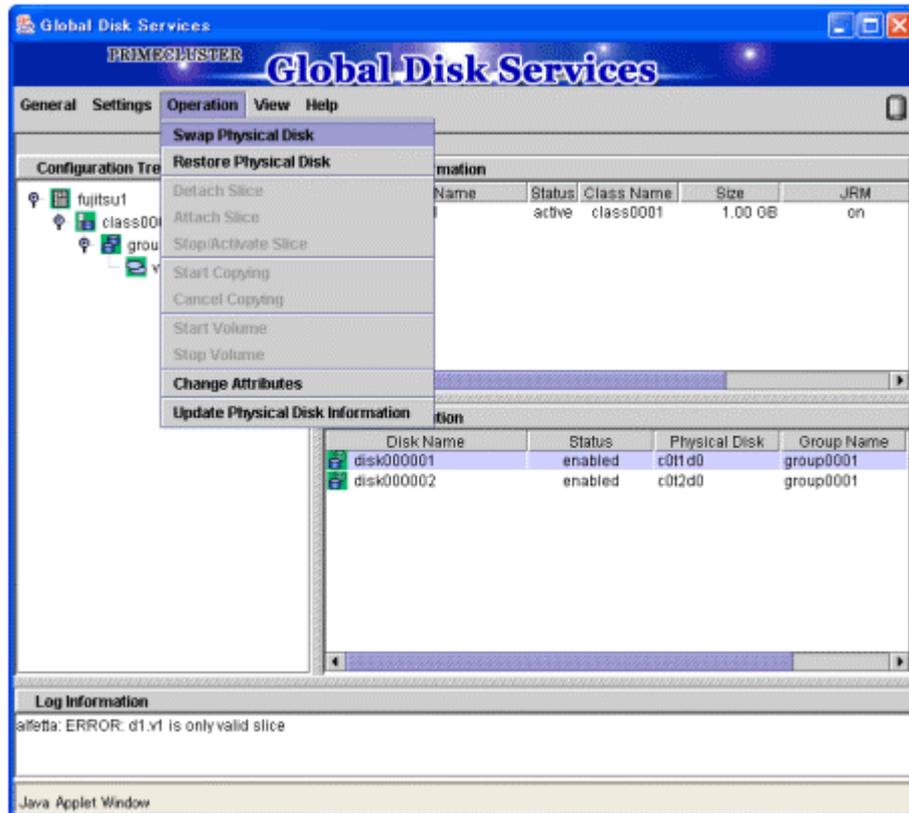
- Automatic unmounting by GDS  
This mode can be used when using GDS4.1A30 or later (see Section B.4, "Setting up the GDS Automatic Unmount function").  
Upon detection of a disk error, GDS automatically performs all necessary operations including logical unmounting, electrical disconnection, and notification to Machine Administration.  
You need not manually unmount the disk drive before starting replacement.  
After automatic unmounting is performed, the following message is displayed in /var/adm/messages:

```
Aug  6 17:29:46 host00 SDX:sdxservd: [ID 702911 user.error] ERROR: disk000001:
/dev/rdisk/c0t2d0s0: ready for swapping due to I/O error, class=class0001
```

Alternatively, the GUI screen of GDS will display the disk as being in the SWAP state, as shown below.



- Manual unmounting using the SynfinityDisk/GDS GUI menu  
Selecting "Swap Physical Disk" from the SynfinityDisk/GDS GUI menu triggers this function. The function executes only unmounting from SynfinityDisk/GDS, and notifies Machine Administration.



In this case, operation executed electrical disconnection is performed by the Machine Administration menu operation executed during replacement.

- Manual unmounting using the SynfinityDisk/GDS `sdxswap` command  
You can use `sdxswap` to perform logical unmounting.  
For the `sdxswap` command arguments, specify the class name and SDX disk name used by SynfinityDisk/GDS. For more information, refer to the "SynfinityDisk Handbook" or "PRIMECLUSTER Global Disk Services Handbook."

```
# /usr/sbin/sdxswap -O -c <class name> -d <SDX disk name>
```

In addition, you have to notify Machine Administration using the `diskswap` command.  
For the `diskswap` command argument, specify the logical device path of slice No. 0 of the relevant disk.

```
# /usr/sbin/FJsvadm/diskswap add <logical device path>
```

In this case, electrical disconnection is performed by the Machine Administration menu operation executed during replacement.

- Cold swap  
The relevant disk is replaced with the system stopped.  
In this mode, the unmount operation is not required.

### B.2.1.2 When using volume management software other than SynfinityDisk/GDS

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When using volume management software other than SynfinityDisk/GDS, the following two unmount modes are available:

- Unmounting from volume management software  
Use the volume management software to unmount the relevant disk from the volume.  
For the operation procedure, refer to the manual for the software being used.

After logical unmounting is complete, use the `diskswap` command to notify Machine Administration.

For the `diskswap` command argument, specify the logical device path of slice No. 0 of the relevant disk.

```
# /usr/sbin/FJSMadm/diskswap add <logical device path>
```

In this mode, electrical disconnection is performed by the Machine Administration menu item executed during replacement.

- Cold swap  
The relevant disk is replaced with the system stopped.  
In this mode, the unmount operation is not required.

## B.2.2 Replacing disk drives

Disk replacement is implemented in one of two modes: hot swap and cold swap.



Note

- Disk drives are replaced by the CE.

### B.2.2.1 Hot swap

---

---

To perform hot swap, execute the menu item "The Faulty Hard Disk Drive Replacement (Hot Swap)".

The menu item for faulty hard disk drive replacement differs depending on the disk unmount mode as follows.

- Automatic unmounting by GDS
  1. When you select the menu item "The Faulty Hard Disk Drive Replacement (Hot Swap)", the following menu opens:

```

Hard Disk Drive

The following disk(s) is/are logically excluded from system:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Select one of following actions:
  y. Start hot replacement of disk(s) listed above
  n. Start hot replacement of other disk(s)

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,n,q,b,t,h):

```

This menu lists the disk drives that have been automatically unmounted by GDS and can now be replaced.

Each disk name is displayed in the following format:

```
<logical device name> (<instance name>: <unit name>) [Disk: <SDX disk name>]
```

**Logical device name** : Represents the logical device name of the applicable disk.

**Instance name** : Represents the instance name of the sd driver.

**Unit name** : Represents the unit name used in "Chapter 5 Messages" in the "Machine Administration Guide" (this manual).

**SDX disk name** : Represents the SynfinityDisk/GDS disk name.

2. Enter "y" if you are going to replace the disk that has automatically been unmounted by GDS. Enter "n" if any disk has been unmounted in another unmount mode and you are going to replace that disk first.  
For an explanation on replacement in this case, see 2, "Other unmount modes."

3. When you enter "y", a menu for selecting the disk to be replaced opens.

```

Hard Disk Drive

The following disk(s) has/have logically been excluded.
You can start hot replacement of following disk(s):
  1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
  2. /dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
  a. All

Select disk(s) to be replaced.
(To specify multiple disks, separate them by a comma ",")

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (1-2,a,q,b,t,h):

```

If you are going to replace all the disks that have been automatically unmounted by GDS, enter "a".

If you are going to replace only a specific disk, select that disk.

4. When you select the disk to be replaced, the following screen opens.

```
Hard Disk Drive

The following disk(s) is/are going to be replaced.
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Replace the disk(s) with fault-LED lit.
This menu will turn on the power of the replaced disk(s).
Check all the replaced disks are properly installed, then
input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,q,b,t,h):
```

The Fault-LED (amber) on the relevant disk lights.  
Physically replace the disk.

5. After replacement is complete, enter "y". Disk power-on processing is performed and the result is displayed as follows:

```
Spinup of the following disk(s) is/are successfully completed:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Input "y":
```

6. Check the result and enter "y". The screen for selecting the operation for mounting disks in GDS opens.  
The subsequent procedure is explained in Section B.2.3, "Mounting disks."

- Other unmount modes
1. If you are going to replace a disk that has been unmounted in a mode other than automatic unmounting by GDS, the following menu opens when you select the menu item "The Faulty Hard Disk Drive Replacement (Hot Swap)".

```
Hard Disk Drive

The following disk have logically been excluded.
You can start hot replacement of following disk:
  1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1)

Select disk to be replaced.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (1,q,b,t,h):
```

2. The disks reported as swappable to Machine Administration are listed.  
Select the disk you are going to replace. The following confirmation message appears.

```
Disk to be replaced /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1)

Are you sure to start replacement by hot swap?(y,n):
```

**Note**

— When you replace two or more disks, replace them one at a time.

3. If the displayed disk is the target disk, enter "y". Electrical disconnection of the disk is performed and the following message appears:

```
Target disk can be located by LED.Please change disk.

1: disk change has finished.
2: disk change has been aborted.
Please enter 1 or 2.
```

4. Replace the disk for which the Fault-LED (amber) lights.
5. After replacement is complete, enter "1". The subsequent procedure for mounting disks is explained in Section B.2.3.3, "Mounting a disk that has been hot-swapped after unmounting by means other than GDS."

### B.2.2.2 Cold swap

Cold replacement refers to the replacement mode in which a disk is replaced with system operation stopped.

1. Before stopping system operation, confirm the location of the disk to be replaced such as by checking error messages.
2. Replace the target disk.

For information on how to mount a cold-swapped disk, see Section B.2.3.2, "Mounting a disk that has been cold-swapped after automatic unmounting," and Section B.2.3.4, "Mounting a disk that has been cold-swapped after unmounting by means other than GDS."

## B.2.3 Mounting disks

Mounting replaced disks in the system can be classified into the following five cases:

- Mounting a disk that has been hot-swapped after automatic unmounting
- Mounting a disk that has been cold-swapped after automatic unmounting
- Mounting a disk that has been hot-swapped after unmounting by means other than GDS
- Mounting a disk that has been cold-swapped after unmounting by means other than GDS
- Mounting a disk for which a hot-swap operation has completed without the disk having been incorporated into the system.

**Note**

When the system has been shut down after hot swapping without properly mounting the swapped disk, follow the procedure described in B.2.3.1, "Mounting a disk that has been hot-swapped after automatic unmounting."

### B.2.3.1 Mounting a disk that has been hot-swapped after automatic unmounting

---

This section describes how to mount a disk that has been unmounted by the GDS automatic unmount function and then replaced using the hot swap menu.

This procedure follows the procedure explained in Section 2.2.1, "Hot swap – ● Automatic unmounting by GDS."

From the replacement menu, you can continue with the procedure to mount the replaced disk in GDS.

During disk mounting, resynchronization copying will be performed automatically, enabling the disk to be used in a file system.

```

Hard Disk Drive

You can include the disk(s) to SafeDISK/SynfinityDisk/GDS by this menu
instead of using commands or menu of SafeDISK/SynfinityDisk/GDS.
Select the disk(s) to be included.
(To specify multiple disks, separate them by a comma ",")
 1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
 2. /dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
  a. All
  q. Quit without attaching.

Notice: In case you quit this menu with disk(s), which had originally
        been managed by SafeDISK/SynfinityDisk/GDS, excluded, you
        should include detached disk(s) to
SafeDISK/SynfinityDisk/GDS, later.
        Depending on the capacity of the disk, Resynchronization
Copying will take long time. In some case, it may take hours.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
    
```

1. Select the disk you are going to mount.  
If you want to mount all the disks you replaced, enter "a".



**Note**

- When three or more mirror groups are configured by GDS, multiple disks in the same mirror group cannot be mounted simultaneously.  
Mount them one at a time.
- When a spare disk is used, resynchronization copying of the spare disk may be executed in the background.  
In this case, start mount processing after copying of the spare disk is completed.

You can also quit the menu without mounting disks in GDS. In this case, execute the disk hot swap menu item again or perform the mount operation using the GDS GUI menu or `sdxsxswap` command to mount the disk in GDS.

2. After you select the disk to mount, the following message appears:

```

Hard Disk Drive

The following disk(s) is/are going to be included to
SafeDISK/SafeDISK/SynfinityDisk/GDS.
  1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]

Input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,b,h):

```

If the correct disk is indicated, enter "y". Mounting the disk in GDS begins and the progress of resynchronization copying is displayed as shown below.

Resynchronization copying takes about one minute per gigabyte of volume size for each volume allocated on the disk.

```

Resynchronization Copying of disks has started.
It will take approximately 80 minutes to complete Resynchronization
Copying.

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Copy processed (Time elapsed : 5 minute(s))
c0t1d0s0:  6%
c4t1d0s0:  7%

To refresh the screen, hit return key.
To quit this menu (Copy will keep processed as background job.),
input "q".
To display the help messages, input "h".

Select.(RETURN,q,h):

```

This screen is renewed every minute and changes automatically to the subsequent screen after resynchronization copying is finished.

You can also renew the progress window by pressing the Return key.

You can also enter "q" to quit the progress display. In this case, resynchronization copying will continue in the background. You can check whether resynchronization copying is complete by using the `sdxinfo` command or checking messages output to `/var/adm/messages`. For more information, refer to the "SynfinityDisk Handbook" or "PRIMECLUSTER Global Disk Services Handbook."

```

Resynchronization Copying of following disk(s) is/are successfully
completed.

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Input "y":

```

3. Confirm the message content and enter "y". The replacement results are displayed as follows:

```
Hot replacement for the disk(s) ended with following results:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
process completed successfully.

Input "y":
```

4. Confirm the message content, and enter "y".  
If an error occurs during replacement or mount processing, an error message displaying the action to be taken appears as shown below.  
See Section B.6, "Messages," for information on the message that appears.

```
Hot replacement for the disk(s) ended with following results:
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
process failed.
Error: Spinup failed.
Action: Check whether the disk is inserted correctly.

Input "y":
```

### B.2.3.2 Mounting a disk that has been cold-swapped after automatic unmounting

---

This section describes how to mount the disk, which has been unmounted by the GDS automatic unmount function, with the system operation stopped.

This procedure follows the procedure in Section B.2.2.2, "Cold swap." Two kinds of procedures are available: Mounting a disk using the Machine Administration menu, and mounting a disk using the SynfinityDisk/GDS GUI.



#### Note

If a disk unmounted by the automatic unmount function has been cold-swapped, be sure to follow this procedure to mount the disk again. If you fail to follow this procedure, the Fault-LED may remain lit.

- Mounting a disk using the Machine Administration menu  
Use menu item "Include the Hard Disk Drive after the Cold Maintenance".
1. When you activate the menu item, the disks that can be mounted are listed.

```

Hard Disk Drive

System found that following disk(s) has/have physically been inserted,
but not logically included to SafeDISK/SynfinityDisk/GDS, yet.
Select the disk(s) to be included.

(To specify multiple disks, separate them by a comma ",")

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
a. All
q. Quit without attaching.

Notice: In case you quit this menu with disk(s), which had originally
        been managed by SafeDISK/SynfinityDisk/GDS, excluded, you
        should include detached disk(s) to
SafeDISK/SynfinityDisk/GDS, later.
        Depending on the capacity of the disk, Resynchronization
Copying will take long time. In some case, it may take hours.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (1-2,a,q,b,t,h):

```

Select the disk you want to mount.

To mount all disks, enter "a".



**Note**

- When three or more mirror groups are configured, multiple disks in the same mirror group cannot be mounted simultaneously.  
Mount them one at a time.
- When a spare disk is used, resynchronization copying of the spare disk may be executed in the background.  
In this case, start mount processing after copying of the spare disk is completed.

2. When you have selected the disk to mount, the following message appears:

```

Hard Disk Drive

The following disk(s) is/are going to be included to
SafeDISK/SafeDISK/SynfinityDisk/GDS.
1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]

Input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,b,h):

```

If the message content is acceptable, enter "y". Mounting the disk on GDS begins and the progress of resynchronization copying is displayed as shown below.

```
Resynchronization Copying of disks has started.
It will take approximately 80 minutes to complete Resynchronization
Copying.

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Copy processed (Time elapsed : 5 minute(s))
c0t1d0s0: 6%
c4t1d0s0: 7%

To refresh the screen, hit return key.
To quit this menu (Copy will keep processed as background job.),
input "q".
To display the help messages, input "h".

Select.(RETURN,q,h):
```

This screen is renewed every minute and changes to the subsequent screen after resynchronization copying is finished.

You can also renew the progress window by pressing the Return key.

You can also enter "q" to quit the progress display. In this case, resynchronization copying continues to be executed in the background.

You can check whether resynchronization copying is complete by using the `sdxinfo` command or checking messages output to `/var/adm/messages`.

For more information, refer to the "SynfinityDisk Handbook" or "PRIMECLUSTER Global Disk Services Handbook."

```
Resynchronization Copying of following disk(s) is/are successfully
completed.

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Input "y":
```

3. Confirm the message content and enter "y". The mount results are displayed as follows:

```
Included to SafeDISK/SynfinityDisk/GDS for the disk(s) ended with
following results:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
process completed successfully.

Input "y":
```

4. Confirm the message content, and enter "y".

If an error occurs during replacement or mount processing, an error message displaying the action to be taken appears as shown below.

See Section B.6, "Messages," for information on the message that appears.

```
Included to SafeDISK/SynfinityDisk/GDS for the disk(s) ended with
following results:
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
  process failed.
  Error: Spinup failed.
  Action: Check whether the disk is inserted correctly.

Input "y":
```

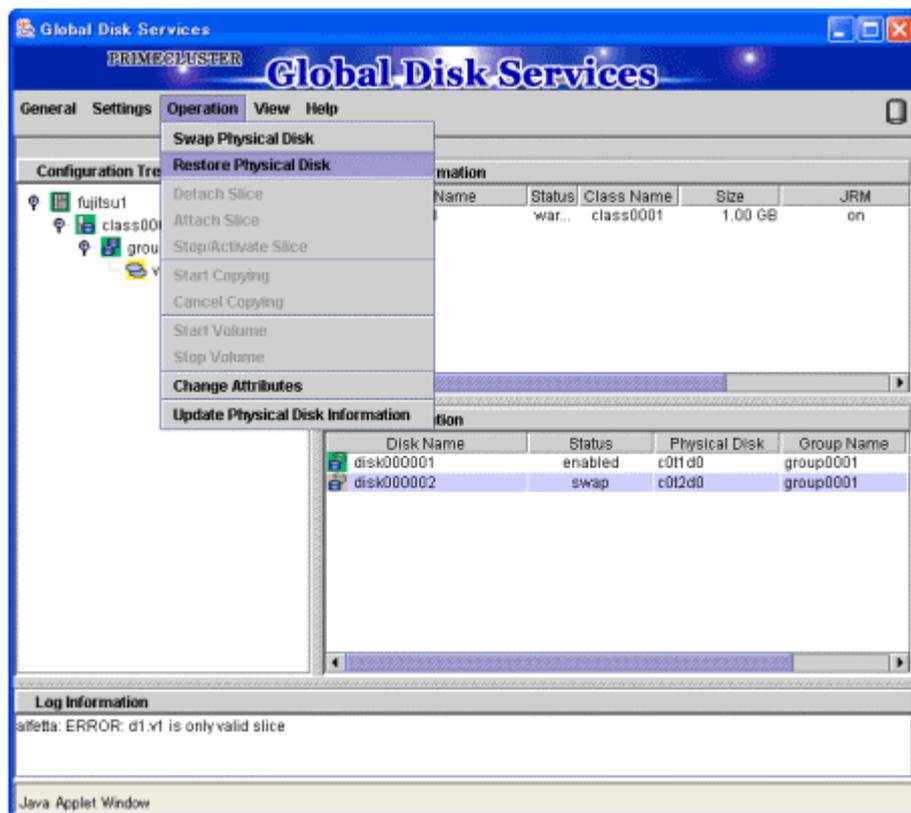
- Mounting a disk using the SynfinityDisk/GDS GUI
 

To mount a disk using the SynfinityDisk/GDS GUI, you have to use `resethardstat` in advance to reset the disk status information retained by Machine Administration.

  1. The `resethardstat` command resets the disk status information retained by Machine Administration. For the `resethardstat` command argument, specify the sd driver instance name (sd46, for example).

```
# /usr/sbin/FJSMadm/resethardstat <instance name>
```

2. From the SynfinityDisk/GDS GUI menu, select "Restore Physical Disk" and mount the disk in SynfinityDisk/GDS.



### B.2.3.3 Mounting a disk that has been hot-swapped after unmounting by means other than GDS

This section describes how to mount a disk that has been hot-swapped after unmounting by a method other than the GDS automatic unmount function.

After completion of replacement using the hot swap menu, you have to perform one of the following operations.

- When using SynfinityDisk/GDS  
You have to perform the operation for mounting disks in SynfinityDisk/GDS.  
Use the `sdxswap` command or GUI to mount disks in SynfinityDisk/GDS. For the `sdxswap` command arguments, specify the class name used by SynfinityDisk/GDS and the SDX disk name.

```
# /usr/sbin/sdxswap -l -c <class name> -d <SDX disk name>
```

- When using volume management software other than SynfinityDisk/GDS  
You have to perform the operation for mounting disks in the management scope of the volume management software used.  
For information on how to mount disks, refer to the manual for the relevant volume management software.

### B.2.3.4 Mounting a disk that has been cold-swapped after unmounting by means other than GDS

---

After replacement with system operation stopped, you have to perform one of the following operations.

1. Use the `resethardstat` command to reset the disk status information retained by Machine Administration. As command argument for the `resethardstat` command, specify the sd driver instance name (`sd46`, for example).

```
# /usr/sbin/FJsvadm/resethardstat <instance name>
```

2. Mount the disk.  
There are two types of mounting procedures, depending on whether SynfinityDisk/GSD or another volume management software product is used.
- When using SynfinityDisk/GDS  
You have to perform the operation for mounting disks in SynfinityDisk/GDS.  
Use the `sdxswap` command or GUI to mount disks in SynfinityDisk/GDS.

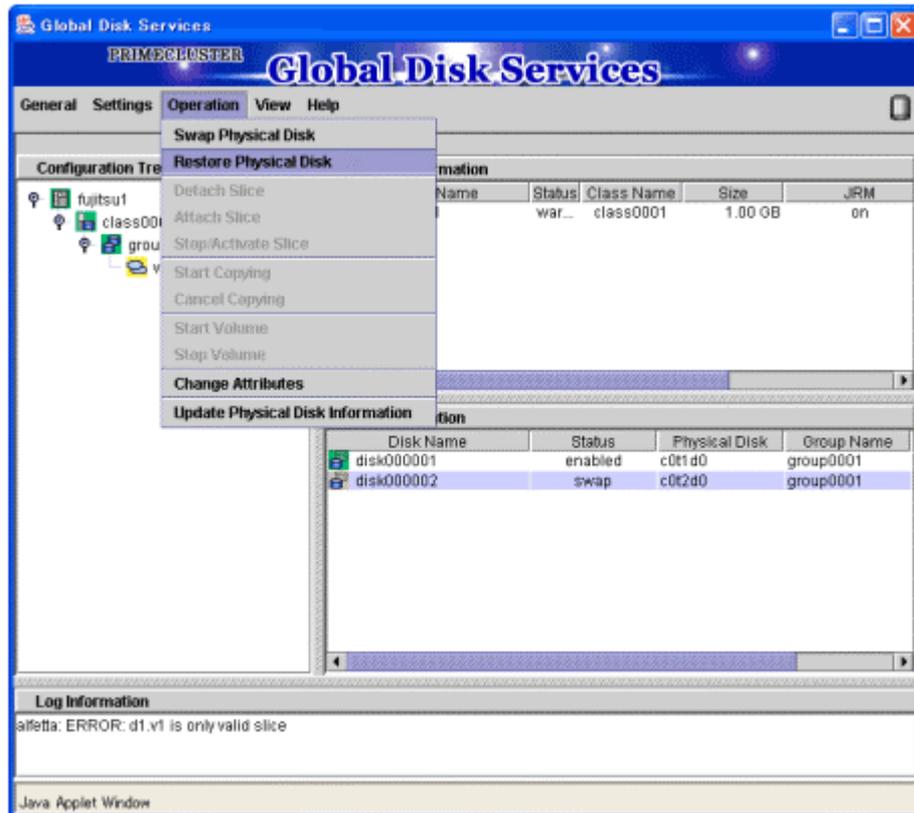
— When using the command line

Use the `sdxswap` command to mount disks in SynfinityDisk/GDS. For the `sdxswap` command arguments, specify the class name used by SynfinityDisk/GDS and the SDX disk name.

```
# /usr/sbin/sdxswap -l -c <class name> -d <SDX disk name>
```

— When using the GUI

From the SynfinityDisk/GDS GUI menu, select "Restore Physical Disk" and mount the disk in SynfinityDisk/GDS.



- When using volume management software other than SynfinityDisk/GDS  
You have to perform an operation for mounting disks in the management scope of the volume management software used.  
For information on how to mount disks, refer to the manual for the relevant volume management software.

## B.3 Flow of Preventive Replacement

Preventive replacement of disks for which no apparent errors have been detected by GDS or Machine Administration is performed by taking the following four steps:

- Checking disk error information
- Unmounting disks
- Replacing disks
- Mounting disks

### B.3.1 Checking disk error information

During preventive replacement, a disk that has not been recognized as faulty is replaced and therefore the disk to be replaced needs to be determined according to information other than fault information such as error marks.

For this purpose, the Machine Administration menu provides a function for displaying disk error statistics information to facilitate preventive replacement.

Disk error statistics information is collected by counting disk I/O retry messages every day.

The menu item "Preventive Maintenance of the Hard Disk Drive (Hot Swap)" first displays error statistics information.

This information is supplementary information for assisting you in determining whether the selected disk needs to undergo preventive replacement.



#### Note

When using software other than GDS4.1A20 or earlier or SynfinityDISK, the target disk must be unmounted according to the procedure given in Section B.3.2, "Unmounting disks," before starting replacement using the "Preventive Maintenance of the Hard Disk Drive (Hot Swap)" menu item. If the menu item is executed before disk unmounting, an error occurs.

1. When you select the menu item "Preventive Maintenance of the Hard Disk Drive (Hot Swap)", the following menu opens.

```
Preventive Replacement for Disk

Input the disk name to be replaced.
One of the following notation can be used:
  Instance Name(sdX)
  Device Special File Name(cxtXdXsX)
  Unit Name(PCI#X-ID#X, SCSI#X-ID#X, etc.)

L: Select from a list.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (name,L,q,b,t,h):
```



### Information

Disk error statistics information can be displayed not only by using the "Preventive Maintenance of the Hard Disk Drive (Hot Swap)" menu item but also by using the "Disk error statistics information" menu item in the "Log Data" menu.

2. Enter a disk name.

For the disk name, you can use one of the following three formats as shown in the menu. Enter the disk name that has been displayed in the relevant messages or on the relevant menu screens.

- Instance name of sd driver
- Logical device name (under /dev/rdisk)
- Physical disk name (unit name written in the "Machine Administration Guide" Chapter5, "Messages")

You can also select the target disk from the list. To do so, enter "L" to display a list as shown below:

```
Preventive Replacement for Disk

Select a disk to be replaced:
 1. /dev/rdsk/c0t1d0s0 (sd1: PCI#00-ID#1) [Disk: disk0001]
 2. /dev/rdsk/c1t1d0s0 (sd17: PCI#00-ID#1) [Disk: disk0010]

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (1-2,q,b,t,h):
```

Even when a physical disk name is entered, this may not be sufficient to uniquely identify one disk. In this event, candidate disks are listed so that you can select one as shown below.

```
Preventive Replacement for Disk

Specified name hits more than one disk.
Select a disk to be replaced:
 1. /dev/rdsk/c0t1d0s0 (sd1: PCI#00-ID#1) [Disk: disk0001]
 2. /dev/rdsk/c1t1d0s0 (sd17: PCI#00-ID#1) [Disk: disk0010]

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (1-2,q,b,t,h):
```

3. When you select the target disk, error occurrence statistics information appears as shown below:

```
Preventive Replacement for Disk

Disk name:
/dev/rdisk/c0t1d0s0 (sd1: PCI#00-ID#1) [Disk: disk0001]

Disk error statistics information:
Date          Error count
Mar 10 2004 :    5
Mar 11 2004 :   20
Mar 12 2004 :  230

Are you going to replace this disk ?
Input "y" to proceed

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,q,b,t,h):
```

Check the displayed information. If the correct disk is selected, enter "y".  
If no error statistics information appears for the selected disk, no error retry events may have occurred for the disk. Check whether you selected the wrong disk.

## **B.3.2 Unmounting disks**

To make a disk hot swappable for preventive maintenance purposes, you have to perform the following two steps of operation:

1. Logical unmounting for preventing the volume management software and OS from using the relevant disk
2. Electrical disconnection for stopping disk rotation to enable physical removal

In addition to the above, Machine Administration must be notified that the relevant disks can be replaced physically. Machine Administration manages a list of disks reported to it as being swappable, to prevent the erroneous replacement of disks not included in the list.

The unmount operation for preventive hot swap varies depending on the type of software used: GDS4.1A30 or later, SynfinityDisk, GDS4.1A20 or earlier, or other volume management software (Solstice™ DiskSuite, VERITAS™ Volume Manager, etc.)

### **B.3.2.1 When using GDS4.1A30 or later**

---

Automatic unmounting can be performed using the menu item "Preventive Maintenance of the Hard Disk Drive (Hot Swap)".

1. When you enter "y" in Section B.3.1, "Checking disk error information," the following screen opens:

```
Preventive Replacement for Disk

Disk name:
/dev/rdisk/c0t1d0s0 (sd1: PCI#00-ID#1) [Disk: disk0001]

This disk is going to be logically excluded.

WARNING:
  While it's excluded, mirroring feature related to it will be
  temporarily suspended. As a result, data could be lost if remaining
  disk faced problem in that period.

Input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,q,b,t,h):
```

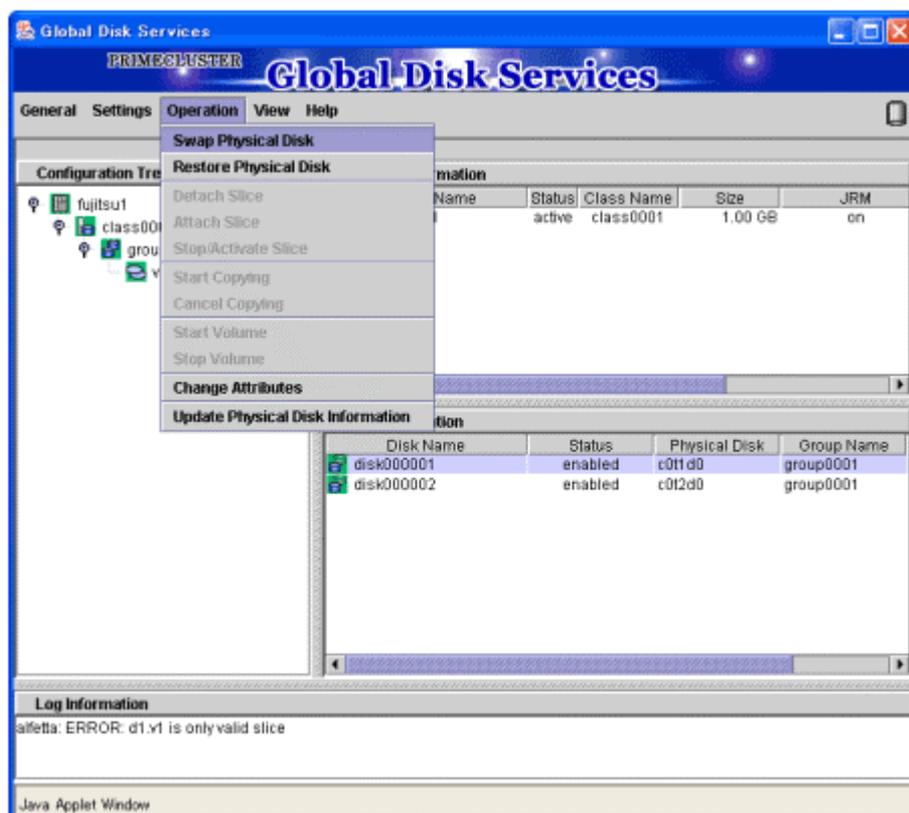
2. To continue unmount processing, enter "y".

### **B.3.2.2 When using SynfinityDisk/GDS4.1A20 or earlier**

---

When using SynfinityDisk/GDS, you have to use one of the following two types of disk unmount operations before starting replacement using the menu item "Preventive Maintenance of the Hard Disk Drive (Hot Swap)".

- Manual unmounting using the SynfinityDisk/GDS GUI menu  
This function is triggered by selecting "Swap Physical Disk" from the SynfinityDisk/GDS GUI menu. The function executes unmounting from SynfinityDisk/GDS, and notifies Machine Administration.



In this case, electrical disconnection is performed by the Machine Administration menu operation executed during replacement.

- Manual unmounting using the SynfinityDisk/GDS `sdxswap` command  
 You can use `sdxswap` to perform logical unmounting. For the `sdxswap` command arguments, specify the class name and SDX disk name used by SynfinityDisk/GDS. For more information, refer to the "SynfinityDisk Handbook" or "PRIMECLUSTER Global Disk Services Handbook."

```
# /usr/sbin/sdxswap -0 -c <class name> -d <SDX disk name>
```

In addition, you have to notify Machine Administration using the `diskswap` command. For the `diskswap` command argument, specify the logical device path of slice No. 0 of the relevant disk.

```
# /usr/sbin/FJVMadm/diskswap add <logical device path>
```

In this case, electrical disconnection is performed by the Machine Administration menu operation executed during replacement.

### B.3.2.3 When using volume management software other than SynfinityDisk/GDS

When using volume management software other than SynfinityDisk/GDS, follow the procedure below to perform the unmount operation.

1. Use the volume management software to unmount the relevant disk from the volume. For the operation procedure, refer to the manual for the relevant software.

- After unmount from the volume management software is completed, use the diskswap command to notify Machine Administration. For the diskswap command argument, specify the logical device path of slice No. 0 of the relevant disk.

```
# /usr/sbin/FJSVmadm/diskswap add <logical device path>
```

In this case, electrical disconnection is performed by the Machine Administration menu operation executed during replacement.

## B.3.3 Replacing disks

The procedure for preventive maintenance (hot swap) varies depending on whether GDS4.1A30 or later is used. The menu display automatically changes depending on this.

### B.3.3.1 When using GDS4.1A30 or later

When using GDS4.1A30 or later, you can perform a series of operations from the unmount operation screen of the "Preventive Maintenance of the Hard Disk Drive (Hot Swap)" menu item.

- After selecting the disk to be replaced, the following screen opens.

```
Hard Disk Drive

The following disk(s) is/are going to be replaced.
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Replace the disk(s) with fault-LED lit.
This menu will turn on the power of the replaced disk(s).
Check all the replaced disks are properly installed, then
input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,q,b,t,h):
```

The Fault-LED (amber) on the relevant disk lights. Replace the disk physically.

- After replacement is complete, enter "y". Disk power-on processing is performed and the result is displayed as follows:

```
Spinup of the following disk(s) is/are successfully completed:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Input "y":
```

- Check the result and then enter "y". The screen for selecting the operation for mounting disks in GDS opens. For the subsequent procedure, see Section B.3.4.1, "When using GDS4.1A30 or later."

### **B.3.3.2 When using software SynfinityDISK/GDS4.1A20 or earlier**

---

1. If you enter "y" after checking statistics information, the following menu opens.

```
Preventive Replacement for Disk

Disk name:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1)

This disk is going to be logically excluded.

Input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,q,b,t,h):
```

2. Select the disk you are going to replace. The following confirmation message appears.

```
Disk to be replaced /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1)

Are you sure to start replacement by hot swap?(y,n):
```

3. If the displayed disk is the target disk, enter "y". Electrical disconnection of the disk is performed and the following message appears:

```
Target disk can be located by LED.Please change disk.

1: disk change has finished.
2: disk change has been aborted.
Please enter 1 or 2.
```

Replace the disk for which the Fault-LED (amber) lights.  
After replacement is complete, enter "1".

## **B.3.4 Mounting disks**

The procedure for mounting disks after preventive maintenance (hot swap) varies depending on whether GDS4.1A30 or later is used.

### **B.3.4.1 When using GDS4.1A30 or later**

---

Using the menu item "Preventive Maintenance of the Hard Disk Drive (Hot Swap)", you can continue to mount the replaced disk in GDS.

Mounting the disks automatically implements resynchronization copying and enables the disks to be used in a file system.

```

Hard Disk Drive

You can include the disk(s) to SafeDISK/SynfinityDisk/GDS by this menu
instead of using commands or menu of SafeDISK/SynfinityDisk/GDS.
Select the disk(s) to be included.
(To specify multiple disks, separate them by a comma ",")
  1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
  2. /dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
  a. All
  q. Quit without attaching.

Notice: In case you quit this menu with disk(s), which had originally
        been managed by SafeDISK/SynfinityDisk/GDS, excluded, you
        should include detached disk(s) to
SafeDISK/SynfinityDisk/GDS, later.
        Depending on the capacity of the disk, Resynchronization
Copying will take long time. In some case, it may take hours.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (1-2,a,q,t,h):

```

1. Select the disk you are going to mount. If you want to mount all the disks replaced, enter "a".



**Note**

- When three or more mirror groups have been set up, two or more disks in the same mirror group cannot be mounted simultaneously. Mount them one at a time.
- When a spare disk is used, resynchronization copying of the spare disk may be executed in the background. In this case, start mount processing after copying of the spare disk is completed.

You can also quit the menu without mounting disks in GDS. In this case, execute the disk hot swap menu again or perform the mount operation using the GDS GUI menu or sdxswap command to mount the disk in GDS.

2. After you select the disk to mount, the following message appears:

```

Hard Disk Drive

The following disk(s) is/are going to be included to
SafeDISK/SafeDISK/SynfinityDisk/GDS.
  1. /dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]

Input "y" to continue.

q:Quit  b:Back to previous menu  t:Go to top menu  h:Help
-----
Select (y,b,h):

```

3. If the correct disk is indicated, enter "y". Mounting the disk in GDS begins and the progress of resynchronization copying is displayed as shown below.

Resynchronization copying takes about one minute per gigabyte of volume size for each volume allocated on the disk.

```
Resynchronization Copying of disks has started.
It will take approximately 80 minutes to complete Resynchronization
Copying.

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Copy processed (Time elapsed : 5 minute(s))
c0t1d0s0: 6%
c4t1d0s0: 7%

To refresh the screen, hit return key.
To quit this menu (Copy will keep processed as background job.),
input "q".
To display the help messages, input "h".

Select.(RETURN,q,h):
```

This screen is renewed every minute and changes to the following window after resynchronization copying is finished.

You can also enter "q" to quit the progress display. In this case, resynchronization copying continues to be executed in the background.

You can check whether resynchronization copying is complete by using the `sdxinfo` command or checking messages output to `/var/adm/messages`.

For more information, refer to the "SynfinityDisk Handbook" or "PRIMECLUSTER Global Disk Services Handbook."

```
Resynchronization Copying of following disk(s) is/are successfully
completed.

/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]

Input "y":
```

4. Confirm the message content and enter "y". The replacement results are displayed as follows:

```
Hot replacement for the disk(s) ended with following results:
/dev/rdisk/c0t1d0s0 (sd1: SCSI#0-ID#1) [Disk: disk0001]
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
  process completed successfully.

Input "y":
```

5. Confirm the message content, and enter "y".  
If an error occurs during replacement or mount processing, an error message displaying the action to be taken appears as shown below.  
See Section B.6, "Messages," for information on the message that appears.

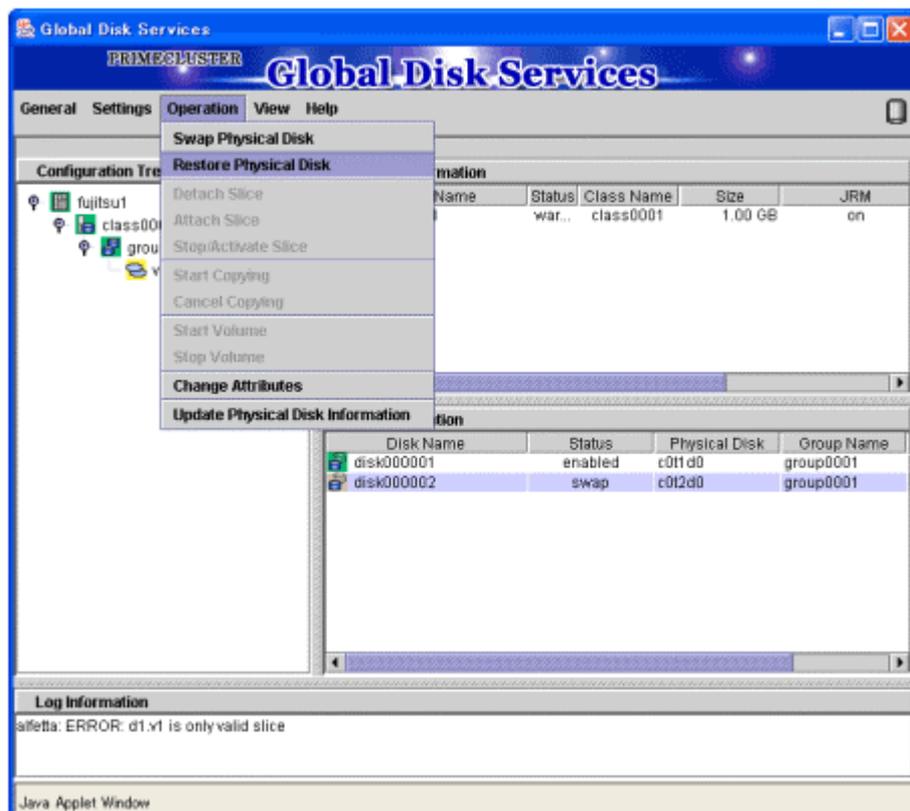
```
Hot replacement for the disk(s) ended with following results:
/dev/rdisk/c4t1d0s0 (sd65: PCI#00-ID#1) [Disk: disk0010]
process failed.
Error: Spinup failed.
Action: Check whether the disk is inserted correctly.

Input "y":
```

### B.3.4.2 When using software other than GDS4.1A30 or later

After you finish disk replacement using the menu item "Preventive Maintenance of the Hard Disk Drive (Hot Swap)" while using software other than GDS4.1A30 or later, you have to perform one of the following types of operation:

- When using SynfinityDisk/GDS  
You have to perform the operation for mounting disks in SynfinityDisk/GDS using the `sdxswap` command or the GUI. Mount the disk in SynfinityDisk/GDS. To mount a disk using the SynfinityDisk/GDS GUI, select "Restore Physical Disk" from the SynfinityDisk/GDS GUI menu and mount the disk in SynfinityDisk/GDS.



You can also use the `sdxswap` command in the command line to mount a disk. For the `sdxswap` command arguments, specify the class name used by SynfinityDisk/GDS and SDX disk name.

```
# /usr/sbin/sdxswap -l -c <class name> -d <SDX disk name>
```

For more information, refer to the "SynfinityDisk Handbook" or "PRIMECLUSTER Global Disk

Services Handbook."

- When using volume management software other than SynfinityDisk/GDS  
You have to perform the operation for including disks in the management scope of the volume management software used. For information on how to mount disks, refer to the manual for the relevant volume management software.

## **B.4 Setting up the GDS Automatic Unmount function**

To enable the automatic unmount function with GDS4.1A30 or later, follow the procedure below:

1. Add a parameter statement to the GDS setting file.  
Add the following line to the `/etc/opt/FJSVsdx/sdx.cf` file:

```
SDX_ERROR_REPORT=warn
```

2. Reboot the system.  
After this function is enabled, GDS operation changes as follows:  
If an error occurs in one slice, all other slices located on the same physical disk are unmounted simultaneously.

## **B.5 Notes**

This section provides notes on replacing disk drives.

### **B.5.1 Notes on disks shared by clusters**

When replacing cluster-shared disks, note the following:

When performing automatic unmounting or preventive replacement using GDS4.1A30 or later, you can execute the replacement menu from either node.

However, when using SynfinityDisk or GDS4.1A20 or earlier, be sure to perform the three operation types unmounting, replacement, and mounting from one specific node only.

After completion of replacement, be sure to display configuration information using the Machine Administration menu to check for error states from both nodes of the cluster. If an error remains, perform the error mark reset operation.

## B.6 Messages

This section describes the messages displayed during replacement of disk drives.

### B.6.1 Error messages displayed during execution of menu items

The following error messages may be displayed for the menu items "The Faulty Hard Disk Drive Replacement (Hot Swap)," "Preventive Maintenance of the Hard Disk Drive (Hot Swap)," and "Include the Hard Disk Drive after the Cold Maintenance".

|                    |                                   |
|--------------------|-----------------------------------|
| Message            | Invalid input. Try again.         |
| Explanation        | An invalid character was entered. |
| Appropriate action | Enter a valid character (option). |

|                    |                                                                             |
|--------------------|-----------------------------------------------------------------------------|
| Message            | There is no device for which hot swapping is possible.                      |
| Explanation        | No device is in swappable state.                                            |
| Appropriate action | To replace a disk drive, perform logical unmounting of the disk in advance. |

|                    |                                                                     |
|--------------------|---------------------------------------------------------------------|
| Message            | There is no disk that can be included.                              |
| Explanation        | Mounting after cold swap was selected but no disk can be mounted.   |
| Appropriate action | No action is required because mount processing is already complete. |

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| Message            | Menu has already blocked <logical disk name> for maintenance. Confirm no other menu is started. |
| Explanation        | The target disk cannot be replaced because it is in use from another menu.                      |
| Appropriate action | If the disk is being operated from another menu, complete the operation.                        |

|                    |                                                                                                                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | Exclude failed: <logical disk name>                                                                                                                                                       |
| Explanation        | Electrical disconnection of the disk drive failed.                                                                                                                                        |
| Appropriate action | If the relevant disk is in use, complete logical unmounting and then retry operation.<br>Check for errors in the route to the disk (related PCI adapter, cable, extended file unit, etc.) |

|                    |                                                                                                                                                                                                                                                                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | The disk which can operate does not exist in the selected disks.                                                                                                                                                                                                          |
| Explanation        | Operation cannot be continued for any selected disks because electrical disconnection failed or maintenance operation is in progress from another window.                                                                                                                 |
| Appropriate action | If the relevant disk is in use, complete logical unmounting and then retry the operation.<br>Check for errors in the route to the disk (related PCI adapter, cable, extended file unit, etc.)<br>If the disk is being operated from another menu, complete the operation. |

|         |                                     |
|---------|-------------------------------------|
| Message | Include failed: <logical disk name> |
|---------|-------------------------------------|

|                    |                                                                                                                                                                                      |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Explanation        | Electrical and logical mounting of a disk drive failed.                                                                                                                              |
| Appropriate action | Check for errors in the route to the disk (related PCI adapter, cable, extended file unit, etc.)<br>Check whether the size of the new disk is smaller than that of the original one. |

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Message            | Include failed about all disks.                          |
| Explanation        | Resynchronization copying of all replaced disks failed.  |
| Appropriate action | Take action according to the error message on each disk. |

|                    |                                                                                             |
|--------------------|---------------------------------------------------------------------------------------------|
| Message            | No disk found.                                                                              |
| Explanation        | No applicable disk is found in the error statistics information for preventive replacement. |
| Appropriate action | No action is required.                                                                      |

|                    |                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------|
| Message            | Error statistics information does not exist.                                                     |
| Explanation        | No statistics information exists for the selected disk because no errors occurred for this disk. |
| Appropriate action | No action is required.                                                                           |

|                    |                                              |
|--------------------|----------------------------------------------|
| Message            | Internal error.                              |
| Explanation        | An error occurred during program processing. |
| Appropriate action | Contact a certified service engineer.        |

|                    |                                                 |
|--------------------|-------------------------------------------------|
| Message            | Failed to execute command                       |
| Explanation        | A command used in the menu returned abnormally. |
| Appropriate action | Contact a certified service engineer.           |

|                    |                                                                                                 |
|--------------------|-------------------------------------------------------------------------------------------------|
| Message            | The error counter initialized failure.                                                          |
| Explanation        | Statistics information reset processing started from the error information reset screen failed. |
| Appropriate action | Contact a certified service engineer.                                                           |

|                    |                                                                                                                  |
|--------------------|------------------------------------------------------------------------------------------------------------------|
| Message            | Selected disk is not supported.                                                                                  |
| Explanation        | The selected disk is not supported for hot swap controlled from the Machine Administration menu.                 |
| Appropriate action | Select a valid disk.<br>When replacing a disk of a RAID device, follow the maintenance procedure for the device. |

### **B.6.2 Messages displayed when an error occurs during replacement**

Error messages may be displayed on the result display screen at the time of completion of mount processing after hot or cold swap. The following error messages are displayed for individual disks on which an error occurred.

|                    |                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------|
| Message            | Exclude failed.                                                                                    |
| Explanation        | Electrical disconnection processing of a disk failed.                                              |
| Appropriate action | Check for proper configuration/status of PCI adapter, file unit (file bay) and cable between them. |

|                    |                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------|
| Message            | Connection failed during spinup.                                                                   |
| Explanation        | Electrical mount processing of a disk failed.                                                      |
| Appropriate action | Check for proper configuration/status of PCI adapter, file unit (file bay) and cable between them. |

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | Resynchronization copying was failed, or command to display progress was failed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Explanation        | Resynchronization copying failed because of an error after replacement.<br>Alternatively, command execution failed because of a software error.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Appropriate action | This failure could be caused not only by hardware, but also by software related issues. Check disk status on the SynfinityDisk/GDS menu. When you can confirm by the menu that all disks are properly configured and working, you can finish your maintenance work. When the menu shows only newly replaced disk is excluded by GDS, confirm whether the source disk or destination disk is properly installed. In addition to this, check a route to the disks, such as a cable or PCI adapter. You should then reattempt this replacement procedure. If you see any other problem, please consult a manual of SynfinityDisk/GDS. |

|                    |                                                                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | The disks cannot be included in GDS because a disk is in the process of resynchronization copying.<br>(Class:<class>, Disk:<disk>)                                                                |
| Explanation        | The specified disk cannot be mounted in GDS because the group to which the disk belongs contains another disk that is subject to resynchronization copying.                                       |
| Appropriate action | Wait until resynchronization copying is complete, then use the sdxswap command or GUI to include the disk.<br>After the resynchronization copying is complete, perform the same procedures again. |

|                    |                                                                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | The disk cannot be included in GDS because it cannot be recognized correctly.<br>(Class:<class>, Disk:<disk>)                                                                                                           |
| Explanation        | The specified device cannot be recognized as a disk drive.                                                                                                                                                              |
| Appropriate action | Check whether power is turned on normally, or check the format of the disk drive.<br>After recovery, use the sdxswap command or the GUI to mount the disk.<br>[Check the connection and formatting status of the disk.] |

|                    |                                                                                                                                                                                                                                                                                               |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | The disk cannot be included in GDS because the disk size is insufficient.<br>(Class:<class>, Disk:<disk>)                                                                                                                                                                                     |
| Explanation        | The specified disk cannot be mounted in GDS because the disk size is too small.                                                                                                                                                                                                               |
| Appropriate action | Use a disk with a size equal to or greater than the original disk used before replacement.<br>After replacement, use the sdxswap command or GUI to mount the disk.<br>[Mount a disk of the same size as or of a size larger than that of the original disk, and perform the procedure again.] |

|         |                                                                     |
|---------|---------------------------------------------------------------------|
| Message | The disk cannot be included in GDS.<br>(Class:<class>, Disk:<disk>) |
|---------|---------------------------------------------------------------------|

|                    |                                                                                                                                                                                                                                                          |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Explanation        | The sdxswap -I command terminated abnormally. Alternatively, the specified device could not be found.                                                                                                                                                    |
| Appropriate action | Check the GDS configuration and status based on the console messages, GDS log, and output of the sdxinfo command.<br>After recovery of GDS, use the sdxswap command or the GUI to perform mount processing.<br>[Check the GDS configuration and status.] |

|                    |                                                                                                                                                                                                               |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | The disk cannot be excluded from GDS.<br>(Class:<class>, Disk:<disk>)                                                                                                                                         |
| Explanation        | The sdxswap -O command terminated abnormally. Alternatively, the specified device could not be found.                                                                                                         |
| Appropriate action | Check the GDS configuration and status based on the console messages, GDS log, and output of the sdxinfo command.<br>After recovery of GDS, retry the operation.<br>[Check the GDS configuration and status.] |

**B.6.3 Messages output to /var/adm/messages**

|                    |                                                                                                                                                                                                                                                                     |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | ERROR: <disk>: <device>: ready for swapping due to I/O error, class=<class>                                                                                                                                                                                         |
| Explanation        | Because an I/O error occurred on the disk <disk> in class <class>, the physical disk <device> has been logically unmounted from GDS administration so that it can be replaced.                                                                                      |
| Appropriate action | Replace the relevant disk using the disk drive replacement menu.<br>However, if this message is followed by error message "ERROR: <device>: setup for hot-swap failed" output to the console, take action according to the response provided for the error message. |

|                    |                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | ERROR: <device>: setup for hot-swap failed                                                                                                                                     |
| Explanation        | The physical disk <device> has been logically unmounted from GDS administration so that it can be replaced, but it could not be unmounted electrically.                        |
| Appropriate action | Check for errors in the route to the disk (related PCI adapters, cables, extended file units, etc.)<br>After error recovery, use the hot swap menu to perform swap processing. |

|                    |                                                                                                                                                            |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Message            | chgdisk : Power supply of disk is cut off. (<device>)                                                                                                      |
| Explanation        | The disk drive <device> has been electrically disconnected successfully.                                                                                   |
| Appropriate action | Perform swapping using the disk drive replacement menu.<br>If this message is displayed during execution of the replacement menu item, ignore the message. |

---

## **Appendix C    Troubleshooting**

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This section explains the procedures for troubleshooting.

## C.1 Problems related to SynfinityCluster and PrimeCluster:

### When an error mark is displayed on the operation management screen for SynfinityCluster or PrimeCluster

When the operation management screen for SynfinityCluster or PrimeCluster displays a ✕ or a ⚠, this indicates that the error monitoring function of machine administration has detected an error of some kind. Use the Machine Administration menu to check the machine status and perform the required actions by using the following procedure:

- For PRIMEPOWER250/450/650/850/900/1500/2500 or HPC2500 series:
  - Use the Management of Hardware Error Event menu to check which events occurred.
  - For each event, check whether maintenance and the required actions have been performed. If suitable action has not yet been performed, contact a certified service engineer.
  - If the event remains displayed after maintenance has been completed, first perform a reset with the Management of Hardware Error Event menu, then use the `resethardstat(1M)` command for a reset.
- For other models:
  - Use the monitoring information from the Hardware Monitoring Information menu for the respective unit to check [Status].
  - Check whether maintenance and the required actions have been performed for all units in which an error occurred. If suitable action has not yet been performed, contact a certified service engineer.
  - If [Status] remains displayed after maintenance has been completed, first perform a reset with the Hardware Monitoring Information menu, then use the `resethardstat(1M)` command for a reset.



Note

Do not perform a reset unless suitable action has been performed for all errors that occurred.

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## Appendix D Glossary

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### **Adapter**

The adapter is a card for I-O control.

### **AP-Net**

This is the high speed inter-connection system developed by Fujitsu, that has 240MB/s of the bandwidth (bidirection).

There are two types of the system: One is the AP-Net type 1 in which as many as 8 nodes can be connected to a single unit. The other is the AP-Net type 2 in which as many as 16 nodes can be connected to a single unit. The network topology is the two-dimensional mesh for the AP-Net type 1 and the two-dimensional torus for the APNet type 2.

### **Battery**

Part for contingency use in case of a power failure.

### **Channel**

The channel is hardware used for control between the CPU and I-O bus.

### **CUI**

CUI is the abbreviation for "Character User Interface." In this manual, CUI refers to the TTY terminal-based interface.

### **Device**

General term for the hardware components (e.g., keyboard, display, printer, memory, disk) that constitute a computer system.

In UNIX, devices can be accessed as special files in the "/dev" directory like other files.

### **Diagnostic program**

Program for diagnosing hardware.

The program name is Fujitsu/PFU Validation and Test Suite (FJVTS).

### **Disk array device**

Means a disk unit that employs RAID.

### **ESF**

Stands for Enhanced Support Facility. Software that improves service. This software links with the System Control Facility to provide the Solaris™ Operating Environment with value-added functions including a utility that monitors hardware control and operational status and reduces the

time required for failure recovery.

### **external power control device**

The external power control device provides functions to switch the power/environment control interface (RCI) to another power/environment control interface (e.g., power control, condition monitoring, disaster preventing monitor control).

### **Fan**

Part that cools internal devices such as a CPU and memory.

### **FST**

Field support strategy solution tool. FST is used to transfer files.  
FST is intended for customer engineers, not for system administrators.

### **GUI**

GUI is the abbreviation for "Graphical User Interface." In this manual, GUI refers to the browser-based interface.

### **HCP**

Stands for Hardware Control Program. Program that controls the hardware components that constitute a computer system.

### **Interleave**

A control method in the main storage unit that improves effective speed of main storage access. By splitting main storage into several parts (way), independent access to alternative sections is enabled.

### **Intermediate swapping**

To swap the hardware component to be monitored immediately because a failure has occurred in the component.

### **Life monitoring**

To replace the hardware component to be monitored because the end of the service life of the component is approaching.

### **Lower tree level**

Means a level that is lower than the current position in the hierarchical structure.

### **OBP/POST**

OBP/POST is the abbreviation for "Open Boot PROM/Power On Self Test" and refers to the initial hardware diagnosis function used at power-on.

### **Preventive swapping**

To monitor the frequency and interval of error occurrence in a hardware component to be monitored and replace the component before an error occurs.

**PRIMECLUSTER GDS**

Stands for PRIMECLUSTER Global Disk Services. Volume management software that mirrors disk units in which the system and data are stored to protect customers from disk failures and accidents. This software supports concatenation that enables creation of mass-storage volumes and striping that distributes access load to disks.

- Concatenation : Concatenates several disks to create one logical mass-storage disk.
- Striping : Distributes I/O load to several disks. In striping, several disks are handled as one logical disk.

**RAID**

Stands for Redundant Array of Inexpensive Disks. This storage strategy uses several disks to achieve a high-speed, mass-storage, and highly-reliable disk. It distributes data to several drives and reads and writes data simultaneously to achieve faster access. It can also combine various techniques such as striping and mirroring that saves the same data to several disks for backup.

**RCI**

RCI is the abbreviation for "Remote Cabinet Interface" and refers to the interface for power control and environment monitoring. RCI enables connection to each unit via a serial bus. The RCI uses System Control Facility to monitor and control the other processors (clusters) connected to it and peripherals such as an expansion cabinet. It can also use the XSCF function to perform remote power on/off. Devices such as a main unit, external power control device, disk unit, and line switching unit can be connected to the RCI.

**RCI address**

The RCI address is used to identify a device using RCI.

**RCI device**

RCI device, such as main equipment units, external power control units, disk devices, and line switching units, are connected using an RCI.

**REMCS**

Stands for REMote Customer Support system. Software that supports customer operation.

**REMCS Agent**

Function that monitors devices and communicates with the support center via a network to support customer operation

**SCF**

Stands for System Control Facility.

SCF is used by PRIMEPOWER models other than PRIMEPOWER250 and PRIMEPOWER450. SCF monitors the hardware status and OS status and notifies the user of any occurring errors. Provided that the power cable of the main unit is connected to a power supply, SCF can monitor the main unit even at times when the power supply of the main unit is off. SCF is controlled by a dedicated processor independent of the CPU of the main unit. In addition, SCF provides monitoring of the hardware ambient temperature, unit temperature, cooling fan frequency, and power supplies, event notification between main units in the cluster system, power on/off interlock processing between a main unit and an expansion unit, and automatic power control.

### SCS

Stands for System Console Software. SCS is SMC software.

This software runs on the system console and provides functions for helping the system administrator and hardware maintenance personnel efficiently perform installation, management, and maintenance of the main unit (GP7000F model 1000/2000, PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500). This product is preinstalled on the system console.

### SMC

Stands for System Management Console. SMC means the system console.

The system console is a device that monitors the main unit status, collects log data, makes a variety of settings, and reports information to the REMCS Center. This console is connected to the SCF on the main unit by a LAN.

### SynfinityCluster

Cluster system that enables the continuous operation of system and business applications.

The cluster system achieves high reliability, high availability, and scalability by connecting several independent servers via a network and operating them like a single system. This software also provides the failure monitoring function that forms the heart of the cluster system and the failover function that restarts work at a high speed when a failure occurs.

### SynfinityDisk

Disk management software product that enables continuous operation of the disk environment.

This product improves the maintainability and availability of important data by protecting data from failures that occur in hardware components such as IO cards, IO cables, and disk units, and user operation errors.

### Tree

A hierarchical structure

### UPS

UPS is the abbreviation for "Uninterruptible Power Supply." The UPS unit can supply continuous power to the system even if the power supply fails under normal operating conditions.

### Web-Based Admin View

Software that sets up the system environment and operations from an internet browser.

To display the GUI menu of Machine Administration, you must start this software in advance.

### WebSysAdmin

Management software for PRIMEPOWER and GP7000F for system administrators.

This product comes with main units for PRIMEPOWER and GP7000F.

### XSCF

An abbreviation of Extended System Control Facility. XSCF is a system monitor and control facility. It is also referred to as the SCF.

XSCF is used only by PRIMEPOWER250 and PRIMEPOWER450 models.

XSCF monitors the hardware status and OS status and notifies the user of any occurring errors.

Provided that the power cable of the main unit is connected to a power supply, SCF can monitor the main unit even at times when the power supply of the main unit is off. SCF is controlled by a

dedicated processor independent of the CPU of the main unit.

In addition, XSCF provides monitoring of the hardware ambient temperature, unit temperature, cooling fan frequency, and power supplies, event notification between main units in the cluster system, power on/off interlock processing between a main unit and an expansion unit, and automatic power control.