
PRIMEQUEST

580A/540A/520A/500/400

SERIES

REFERENCE MANUAL:
BASIC OPERATION/GUI/COMMANDS

FOR SAFE OPERATION

This manual contains important information regarding the use and handling of this product. Read this manual thoroughly. Pay special attention to the section "[NOTE ON SAFETY](#)" Use the product according to the instructions and information available in this manual. Keep this manual handy for further reference.

Fujitsu makes every effort to prevent users and bystanders from being injured or from suffering damage to their property. Use the product according to this manual.

ABOUT THIS PRODUCT

This product is designed and manufactured for use in standard applications such as office work, personal device, household appliance, and general industrial applications. This product is not intended for use in nuclear-reactor control systems, aeronautical and space systems, air traffic control systems, mass transportation control systems, medical devices for life support, missile launch control systems or other specialized uses in which extremely high levels of reliability are required, the required levels of safety cannot be guaranteed, or a failure or operational error could be life-threatening or could cause physical injury (referred to hereafter as "high-risk" use). You shall not use this product without securing the sufficient safety required for high-risk use. If you wish to use this product for high-risk use, please consult with sales representatives in charge before such use.

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This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Laser standards

This equipment includes Class 1 laser products and complies with FDA Radiation Performance Standards, 21 CFR 1040.10 and 1040.11, and the International Laser Safety Standards IEC60825-1: 2001.

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Revision History

(1/1)

Edition	Date	Revised section (Added/ Deleted/ Altered)(Note)	Details
01	2005-07-11	—	—
02	2005-09-16	All Chapters (correction) Chapter 5 (correction)	Technical brushup Addition of description for Windows version
03	2005-10-31	Chapter 1, 3, 4, 5, 7, 8, 10, 11, 12 (correction)	Error corrections
04	2006-02-20	All Chapters (correction) Chapter 3 and 4 (addition)	Addition of description for PRIMEQUEST 420 Addition of chapters because two manuals were combined
05	2006-04-17	Chapter 5, Section 3.2 and 4.7 (addition) Section 12.2 (addition) Appendix B (addition) Appendix C (addition)	Technical brushup Section added Addition of description Newly added.
06	2006-08-11	All chapters (correction) Chapter 4 (correction) Appendix D (correction)	Addition of descriptions for PRIMEQUEST 500 series Addition of descriptions for Linux (SUSE) Addition of XPAR settings and notes Addition of REMCS setup procedure and error messages
07	2007-3-05	Chapter 5 (correction)	<ul style="list-style-type: none"> • Addition of GTHB screens • Deletion of description for interleave
08	2007-08-31	Chapter 12, Appendix A to Appendix H (deletion)	Deletion of description in order to subdivide into separate volumes
09	2008-03-10	All Chapters (addition)	Addition of description for PRIMEQUEST 580A/540A/520A
10	2008-04-10	All chapters (correction)	Technical brushup

Note: In this table, the revised section is indicated by its section number in the current edition.

An asterisk (*) indicates a section in the previous edition.

Preface

This manual describes how to operate the system using the Web-UI and command line interface (CLI) provided with the PRIMEQUEST-series machine. Read this manual together with the manuals referenced in this manual.

This section explains:

- [Structure and Contents of This Manual](#)
- [Other Reference Manuals](#)
- [Abbreviations](#)
- [Text Conventions](#)
- [Syntax of the Command Line Interface \(CLI\)](#)
- [Notes Regarding Notations Used in This Manual](#)
- [Conventions for Alert Messages](#)
- [Environmental Requirements for Using This Product](#)
- [Reader Feedback](#)

Structure and Contents of This Manual

This manual is organized as described below:

Part I Basics

CHAPTER 1 Structure of This manual and How to Read It

Describes the structure of this manual and provides information about reading the manual.

CHAPTER 2 Overview of the Web-UI

Describes basic operations from the Web-UI provided with the PRIMEQUEST-series machine.

CHAPTER 3 Starting and Stopping the System

Explains how to turn on and turn off the main unit and partitions and also how to use LEDs to check the status.

Part II PRIMEQUEST Functions

CHAPTER 4 Overview of PRIMEQUEST Functions

Describes the PRIMEQUEST Server Agent (PSA) and management board (MMB) functions among the functions provided by PRIMEQUEST-series machines.

Part III MMB

CHAPTER 5 Web-UI Operations

Provides a list of menus and describes the windows and use of the MMB Web-UI for managing and operating the PRIMEQUEST-series machine.

CHAPTER 6 CLI Operations

Describes use of the CLI for managing and operating the PRIMEQUEST-series machine.

Part IV PSA

CHAPTER 7 Web-UI Operations

Provides a list of menus and describes the windows and use of the MMB Web-UI for PSA operations.

CHAPTER 8 CLI Operations

Describes use of the CLI for PSA operations.

Part V EFI

CHAPTER 9 EFI Overview

Provides an overview of the EFI.

CHAPTER 10 Boot Manager

Describes the EFI menu functions used to specify and change boot processing.

CHAPTER 11 EFI Shell and EFI Commands

Describes the EFI shell functions.

Glossary

Explains the terms used in this manual.

Index

Describes keywords and corresponding reference page numbers.

Other Reference Manuals

The following manuals are provided for reference:

- a) PDF manuals included on the *PRIMEQUEST Manuals* CD-ROM disk (C122-E013-C2)

Title	Description	Manual code
<i>PRIMEQUEST 580A/540A/580/540/480/440 System Design Guide</i>	Explains requirements, considerations, and notes on the system operation design of the PRIMEQUEST 580A/540A/580/540/480/440.	C122-B001EN
<i>PRIMEQUEST 580A/540A/580/540/480/440 Installation Planning Manual</i>	Explains specifications and requirements for installation sites that are applicable to the installation of the PRIMEQUEST 580A/540A/580/540/480/440.	C122-H001EN
<i>PRIMEQUEST 500A/500/400 Series Installation Manual</i>	Explains the setup of the PRIMEQUEST, including the preparation for the installation, initial settings, and software installation.	C122-E001EN
<i>PRIMEQUEST 520A/520/420 System Design Guide</i>	Explains requirements, considerations, and notes on the system operation design of the PRIMEQUEST 520A/520/420.	C122-B009EN
<i>PRIMEQUEST 520A/520/420 Installation Planning Manual</i>	Explains specifications and requirements for installation sites that are applicable to the installation of the PRIMEQUEST 520A/520/420.	C122-H002EN
<i>PRIMEQUEST 580A/540A/520A/500/400 Series Reference Manual: Basic Operation/GUI/Commands</i>	Explains operations, setup methods, and the system management method that are required for the system operation of the PRIMEQUEST. The explanation covers basic operations and functions of the MMB, PSA, and EFI.	C122-E003EN
<i>PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information</i>	Explains system maintenance, Hot Plug, REMCS, and LEDs and other information required for system operation. Also, the manual provides supplementary information such as information on the physical locations of components.	C122-E074EN
<i>PRIMEQUEST 500A/500/400 Series Reference Manual: Messages/Logs</i>	Explains measures to be taken against problems that occur during operation and describes various types of messages.	C122-E004EN
<i>PRIMEQUEST GSWB User's Manual</i>	Explains the requirements, points to consider, and notes concerning installing and operating GSWB, an optional product.	C122-E028EN
<i>SPARC Enterprise/PRIMEQUEST Common Installation Planning Manual</i>	Explains basic information and policy on installation planning and facilities planning that are required for the installation of the SPARC Enterprise series and PRIMEQUEST series.	C120-H007EN
<i>PRIMEQUEST 580A/580 Dynamic Partitioning (DP) Manual</i>	Explains the Dynamic Partitioning (DP) function which the PRIMEQUEST 580A/540A supports.	C122-E085EN

b) Printed manual

For the printed manual (sold separately), contact your certified service engineer.

- *PRIMEQUEST 500A/500/400 Series Installation Manual* (C122-E001EN)

Abbreviations

In this manual, the product names are abbreviated as follows:

Long title	Abbreviations
Red Hat® Enterprise Linux® AS (v.4 for Itanium)	Red Hat (*1)
Red Hat® Enterprise Linux® 5 (for Intel Itanium)	
Red Hat® Enterprise Linux®AS (v.4 for Itanium)	RHEL-AS4(IPF) Red
Red Hat® Enterprise Linux®5 (for Intel Itanium)	RHEL5(IPF) (*2)
SUSE™ Linux Enterprise Server 9 for Itanium Processor Family	SUSE
SUSE™ Linux Enterprise Server 10 for Itanium Processor Family	
SUSE™ Linux Enterprise Server 9 for Itanium Processor Family	SUSE9
SUSE™ Linux Enterprise Server 10 for Itanium Processor Family	SUSE10
Microsoft® Windows® XP Professional	Windows XP
Microsoft® Windows® XP Home Edition	
Microsoft® Windows Server® 2003, Enterprise Edition for Itanium-based Systems	Windows Windows Server 2003
Microsoft® Windows Server® 2003, Datacenter Edition for Itanium-based Systems	
Microsoft® Windows Server® 2008 for Itanium-Based Systems	Windows Windows Server 2008

*1: Version-independent abbreviation

*2: description in the form of "RHEL5.x (IPF)" indicates an updated version.

Text Conventions

This manual uses the following symbols to express specific types of information:

Fonts/symbols	Meaning	Example
<i>Italic</i>	Indicates names of manuals.	See the <i>PRIMEQUEST 580A/540A/580/540/480/440 System Design Guide</i> .
" "	Indicates names of chapters, sections, items, buttons, or menus.	See Chapter 5, "System Maintenance.
[]	Indicates window names, window button names, tab names, and dropdown menu selections.	Click the [OK] button.

Syntax of the Command Line Interface (CLI)

The command syntax is described below.

Command syntax

The command syntax is as follows:

- A variable that requires input of a value must be enclosed in < >.
- An optional element must be enclosed in [].
- A group of options for an optional keyword must be enclosed in [] and delimited by |.
- A group of options for a mandatory keyword must be enclosed in { } and delimited by |.



The command syntax is shown in a frame such as this one.

Notes Regarding Notations Used in This Manual

- Items marked with "Linux" apply to both Red Hat® Enterprise Linux® AS (v.4 for Itanium), Red Hat® Enterprise Linux® 5 (for Intel Itanium) SUSE™ Linux Enterprise Server 9 for Itanium Processor Family and SUSE™ Linux Enterprise Server 10 for Itanium Processor Family (*).
*: For details, contact a Fujitsu certified service engineer.
- The IO Unit is indicated as "IOU" in the MMB Web-UI and in the figures shown in this manual.

Conventions for Alert Messages

This manual uses the following conventions to show alert messages. An alert message consists of an alert signal and alert statements.

 WARNING	This indicates a hazardous situation that could result in serious personal injury if the user does not perform the procedure correctly.
 CAUTION	This indicates a hazardous situation that could result in minor or moderate personal injury if the user does not perform the procedure correctly. This signal also indicates that damage to the product or other property may occur if the user does not perform the procedure correctly.
IMPORTANT	This indicates information that could help the user to use the product more effectively.

Alert messages in the text

In the text, alert messages are indented to distinguish them from regular text. A wider space precedes and follows the message to show where the message begins and ends.

⚠WARNING

Certain tasks in this manual should only be performed by a certified service engineer. Users must not perform these tasks. Incorrect operation of these tasks may cause electric shock, injury, or fire.

- Installation and reinstallation of all components, and initial settings
- Removal of front, rear, or side covers
- Mounting/de-mounting of optional internal devices

The important alert messages are listed in the "[Important Alert Messages](#)" table in the section titled, "[NOTE ON SAFETY](#)" after "[Preface](#)."

Environmental Requirements for Using This Product

This product is a computer which is intended to be used in a computer room. For details on the operational environment, see the PRIMEQUEST 580A/540A/580/540/480/440 *Installation Planning Manual* (C122-H001EN) or the PRIMEQUEST 520A/520/420 *Installation Planning Manual* (C122-H002EN).

Reader Feedback

- In this manual, it is assumed that two BMMs (optional products) can be connected to a single IO Unit and IOX; this is reflected both in the explanations and in the figures included in this manual. At present, however, the PRIMEQUEST 400 series supports only connection to one BMM (BMM#0) per IO Unit and IOX.
- In this manual, the term BP (BackPlane) used in descriptions for the PRIMEQUEST 480/440 series actually stands for MP (MidPlane).
- The screen images in this manual may be different from the actual screen images.
- If you find any errors or unclear statements in this manual, please fill in the "Reader's Comment Form" sheet at the back of this manual and forward it to the address indicated at the bottom of the sheet.
- This manual is subject to revision without prior notice.
- The PDF version of this manual is best viewed in Adobe® Reader® with a magnification of 100% and Single Page for the page layout.

NOTE ON SAFETY

Important Alert Messages

This manual provides the following important alert signals:



This indicates a hazardous situation that could result in minor or moderate personal injury if the user does not perform the procedure correctly. This signal also indicates that damage to the product or other property may occur if the user does not perform the procedure correctly.

Task	Warning	Page
Normal operation	Malfunction The MMB Web-UI supports the Web browsers listed below. Note that other browsers may not display Web-UI windows correctly. <ul style="list-style-type: none">● Microsoft® Internet Explorer (IE) v5.5 (SP2) and later● Netscape v7.02 and later	P.2-1
	Data destruction When power to the main processing unit is turned off in an operation from the MMB, only the following LEDs of the OPL and the MMB stay lit: <ul style="list-style-type: none">● MMB-Ready LED of the OPL● Power LED of the MMB● Ready LED of the MMB● Active LED of the MMB Before turning off the main power (UPS, power distribution box, circuit breaker switches, etc.), be sure to confirm that all LEDs other than the above are off. Otherwise, turning off the main power may cause damage to data.	P.3-9 P.3-11
	Data destruction Before shutting down power, make sure the following events have occurred; otherwise, data may be destroyed: <ul style="list-style-type: none">● All applications have completed processing.● No user is using a component. The Power LED on the operator panel is turned off when the main unit is turned off. Before shutting down main power (to the UPS, power distribution box, and circuit breakers), make sure that the LED is off. If necessary, back up files before shutting down the power.	P.3-14

Task	Warning	Page
Normal operation	Malfunction Before any of the following operations is performed, [Disable] must be set for the Boot Watchdog in the [Watchdog] window of PSA. <ul style="list-style-type: none"> ● Booting from a CD-ROM disk ● Booting the system in single-user mode ● Backing up or restoring data by using SystemcastWizard If any of the above operations is performed with [Enable] set for the Boot Watchdog, OS restart is attempted repeatedly for the specified number of times. The system then takes the specified action (Stop rebooting and Power Off, Stop rebooting, or Diagnostic interrupt assert). The number of retries of the OS restart and the actions to be taken can be set in the [ASR Control] window for the MMB-UI. In the [ASR Control] window, check [Cancel Boot Watchdog], and click the [Apply] button. [Disable] can thus be forcibly set for the Boot Watchdog.	P.3-31 P.5-182
	Guarantee of operation Do not use this field. Doing so may lead to a malfunction and result in data corruption or a device failure.	P.5-120 P.5-121
	Guarantee of operation Fujitsu certified service engineers use the [Maintenance Wizard] window for maintenance. Customers should not use this window. Doing so may cause a failure.	P.5-282
	Mis-operation If the browser update button and the frame update function in the contextual menu are used in the PSA setting window that is displayed when settings are completed, settings may be made by simply confirming the previously made settings. Note that, in this case, the settings are made without displaying the corresponding confirmation dialog box. Note also that a window with the new settings is displayed when the settings have been made. However, to confirm that all settings are correct, Fujitsu recommends displaying the window again using the Refresh button. If no Refresh button is available, the window should be opened again by selecting the corresponding menu once again.	P.7-2

Task	Warning	Page
Normal operation	<p>Malfunction</p> <p>Before any of the following operations is performed, [Disable] must be set for the Boot Watchdog.</p> <ul style="list-style-type: none">● Booting from a CD-ROM disk● Booting the system in single-user mode● Backing up or restoring data by using SystemcastWizard <p>If any of the above operations is performed with [Enable] set for the Boot Watchdog, OS restart is attempted repeatedly for the specified number of times. The system then takes the specified action (Stop rebooting and Power Off, Stop rebooting, or Diagnostic interrupt assert). The number of retries of the OS restart and the actions to be taken can be set in the [ASR Control] window for the MMB-UI.</p> <p>In the [ASR Control] window, check [Cancel Boot Watchdog], and click the [Apply] button. [Disable] can thus be forcibly set for the Boot Watchdog.</p>	P.7-66

Product Handling

Maintenance

WARNING

Certain tasks in this manual should only be performed by a certified service engineer. Users must not perform these tasks. Incorrect operation of these tasks may cause electric shock, injury, or fire.

- Installation and reinstallation of all components, and initial settings
- Removal of front, rear, or side covers
- Mounting/de-mounting of optional internal devices
- Plugging or unplugging of external interface cards
- Maintenance and inspections (repairing, and regular diagnosis and maintenance)

CAUTION

The following tasks regarding this product and the optional products provided from Fujitsu should only be performed by a certified service engineer. Users must not perform these tasks. Incorrect operation of these tasks may cause malfunction.

- Unpacking optional adapters and such packages delivered to the users

Remodeling/Rebuilding

CAUTION

Do not make mechanical or electrical modifications to the equipment.

Using this product after modifying or overhauling may cause unexpected injury or damage to the property, the user, or bystanders.

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Part I Basics

CHAPTER 1 Structure of This manual and How to Read It

This manual describes operation of software on the PRIMEQUEST-series machine.

Figure 1.1 shows the main types of software running on this server:

- MMB firmware : Part III
- PSA : Part IV
- EFI firmware : Part V

Each part of the manual corresponds to one type of software.

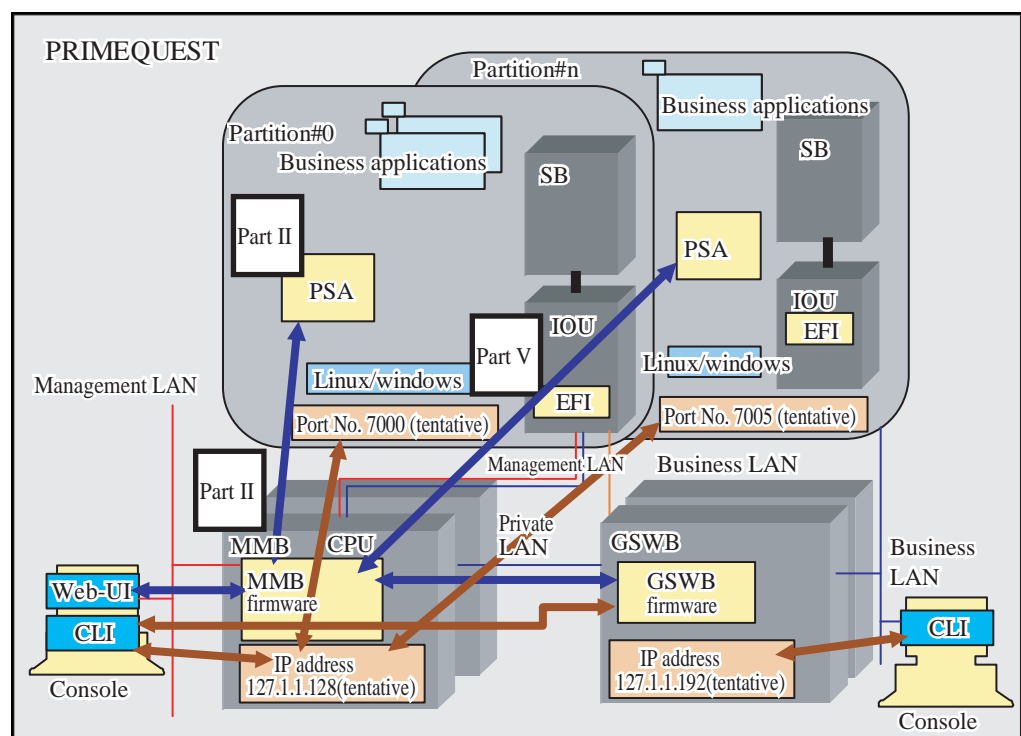


Figure 1.1 Software covered in this manual
(PRIMEQUEST 580A/540A/580/540/480/440)

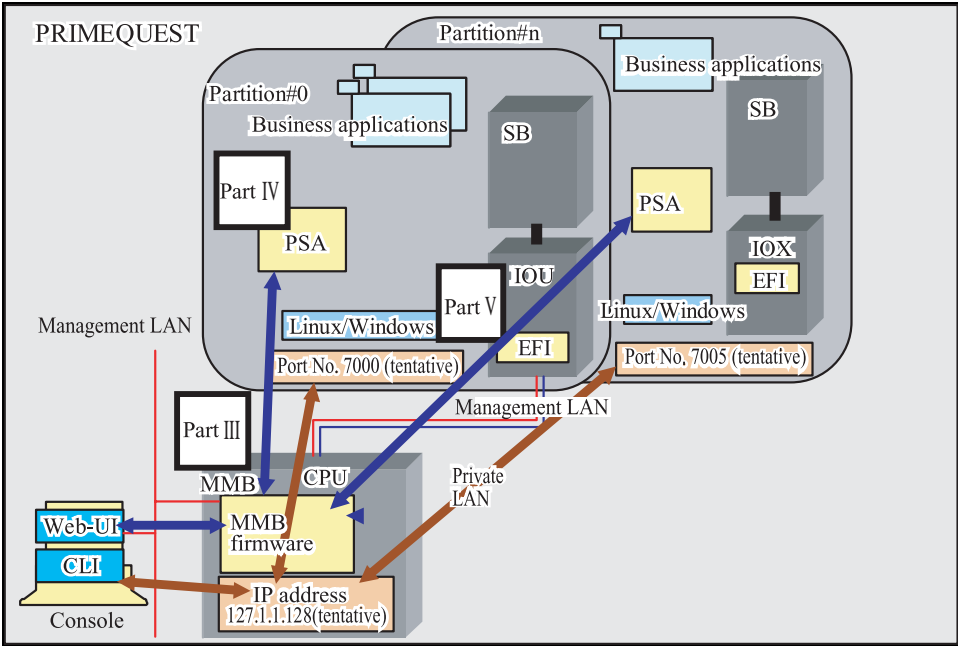


Figure 1.2 Software covered in this manual (PRIMEQUEST 520A/520/420)

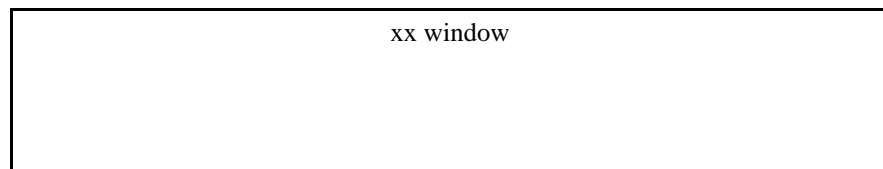
1.1 Conventions Used in This Manual

MMB and PSA descriptions in Parts III and IV are organized in sections according to the windows and commands that are described.

This section describes the format of the descriptions in Parts III and IV.

Format of window descriptions

Each Web window description has the following format:



A window screenshot is provided. For a window whose display varies depending on the Web browser, the window displayed in Microsoft Internet Explorer is shown.

Item	Description
Name of item 1 in the window	Item 1 is described.
Name of item 2 in the window	Item 2 is described.
:	:

Names of displayed items in the window are listed together with their descriptions.

Button	Description
Name of button 1 in window	The function of button 1 is described.
Name of button 2 in window	The function of button 2 is described.
:	:

Names of displayed buttons in the window are listed together with their descriptions.

(1) Menu operation

The menu operating procedure for displaying the window is described.

(2) GUI operation

The operating procedure with the window is described.

Format of command descriptions

Each command description has the following format:

(1) Synopsis

The command syntax is described as follows:

- A variable to which a value must be assigned is enclosed in < >.
- An optional element is enclosed in [].
- A selection of optional keywords, which are delimited by |, is enclosed in [].
- A selection of required keywords, which are delimited by |, is enclosed in { }.

The command syntax is shown in a box.

(2) Options

Command options are described.

(3) Examples

Examples of using the command are shown.

Example of the command

Screen operation notations

Window operations are described as follows in this manual:

- Web UI menu operations

[] → []

Example: Description of the operating procedure for displaying the [System Status] window

Click [System] → [System Status]. (Select the items in the order shown.)

- Description involving multiple menu items that are at the same level

[]/[]/[]/[]

Example: Description of the operating procedure for displaying the IO Unit, front panel, port-channel, or partition information in the [Port Configuration] window

Click [Switch] → [GSWB#x] → [Port] → [Port Configuration] → [IO Unit]/[Front Panel]/[port-channel]/[Partition].

- Description of one of multiple components (They are actually represented by a number on the Web-UI.)

Component-name#x

Example: Description of a partition number at the second level

Click [Partition] → [Partition#x] → [Mode].

1.2 Correspondence between Windows and Parts of This Manual

Descriptions of operation from windows in this manual are based on the menu operations provided by the type of software used. This also applies to command descriptions in the manual.

Most operations of the PRIMEQUEST-series machine are performed from MMB Web-UI windows. Also, PSA and GSWB Web-UI windows are used from the MMB Web-UI windows.

Figure 1.3 shows an example of the correspondence between windows and parts of the manual.

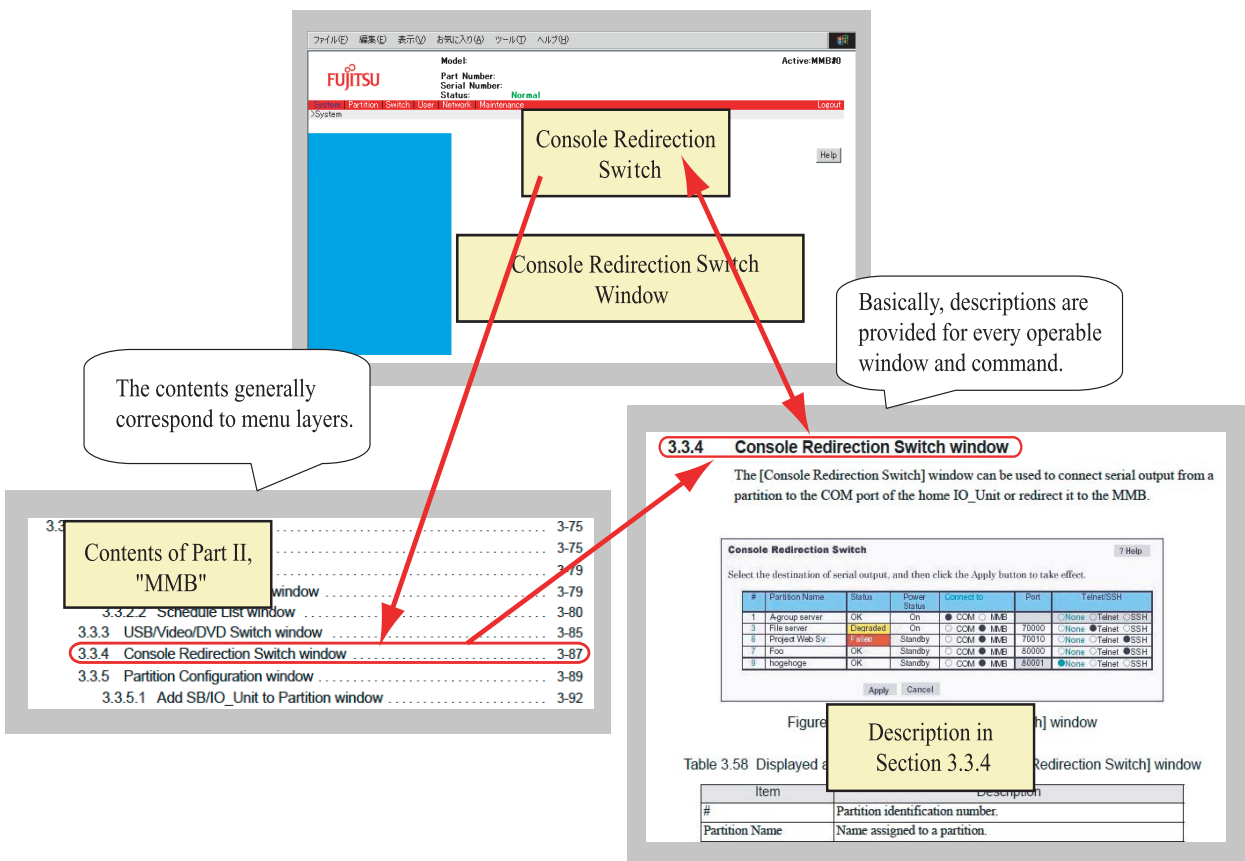


Figure 1.3 Window and its corresponding section in this manual

The contents of the manual generally correspond to menu layers.

Basically, the manual has operation descriptions for every operable window and command.

To find out the software corresponding to a window, check the submenu hierarchy (breadcrumb trail) that is displayed below the navigation bar in the window. The menu path to the displayed content is displayed there.

- An example of a submenu path is
"Partition>Partion#0>PSA>Network>Network Interface".
- A submenu path that includes "PSA" indicates a PSA Web-UI window.
- A submenu path that includes "Switch" indicates a GSWB Web-UI window.
- A submenu path other than the above indicates an MMB Web-UI window.

CHAPTER 2 Overview of the Web-UI

The PRIMEQUEST-series machine provides two user interfaces for its server management board, referred to as the management board (MMB), containing a dedicated processor:

- The Web user interface (Web-UI) enables operation and management by the user through a Web browser running on a PC or workstation (referred to collectively as a PC, in this document).
- The command line interface (CLI) enables operation by the user through a serial port or remote PC connection via a management LAN.

This chapter describes common Web-UI window operations and basic operations with the MMB for management and operation of the PRIMEQUEST-series machine. Basic operations from the CLI are described in the chapter on CLI operations in each part of this manual.



Malfunction

The MMB Web-UI supports the Web browsers listed below. Note that other browsers may not display Web-UI windows correctly.

- Microsoft® Internet Explorer (IE) v5.5 (SP2) and later
- Netscape v7.02 and later

2.1 Web-UI Windows

The user can select the desired font size in these windows. The system status is indicated by text. It is also indicated by colors so that the user can easily recognize the current status. Three color patterns classify the status as normal, warning, or error:

- Normal status

The window background color remains the same.

- Warning status

Yellow indicates the warning status.

For example, if a unit is in the warning status, the table frame that displays the status has a yellow background.

- Error status

Red indicates the error status.

For example, if a unit is in the error status, the table frame that displays the status has a red background.

If there is an occurrence of an MMB failure, MMB warning, or a similar problem indicated by one of the "operation interruption check conditions" below, do not attempt to perform any operation yourself. Contact a Fujitsu certified service engineer instead.

- Operation interruption check conditions

- The Alarm LED of the MMB is on.
- None of the Active-LEDs of the MMB#0 and MMB#1 is on.
- A connection could not be established to the MMB Web-UI.
- The Alarm LEDs of multiple boards in the main unit are on.
- "ReadError" is displayed by the MMB Web-UI.
- "Not Present" is displayed for the status of every unit in the [System Status] window of the MMB Web-UI.

2.2 Frame Configuration

Each Web-UI window consists of three frames as shown below.

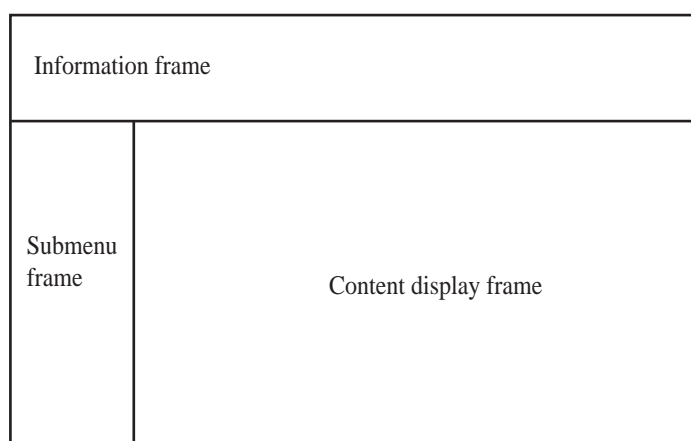


Figure 2.1 Frame configuration

- Information frame
PRIMEQUEST-series machine information, such as a model name and part number, is displayed. The user can check this information to easily identify the system.
- Submenu frame
A tree view menu is displayed. Selecting a menu item displays the corresponding window in the content display frame, which displays status information and is used to make settings.
- Content display frame
A window for displaying status information and specifying functions is displayed.

2.3 Information Frame

This section describes the information that is always displayed in the information frame.

Here, the window displayed for the PRIMEQUEST 580A/540A/580/540/480/440 is described as an example.

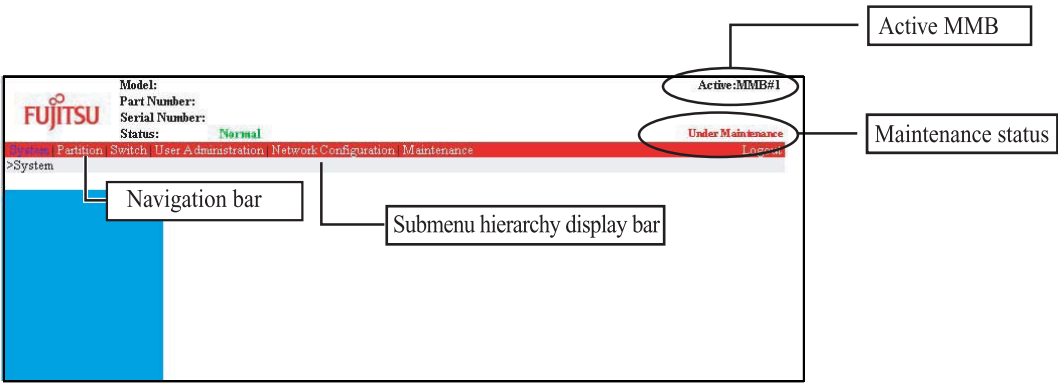




Figure 2.2 Information frame

- Model
A PRIMEQUEST model name is displayed.
- Part Number
A PRIMEQUEST part number is displayed.
Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
- Serial Number
A PRIMEQUEST serial number is displayed.
Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
- Status
The status of the PRIMEQUEST-series machine as a whole is displayed. The following three system statuses can be displayed.

Status	Displayed color	Icon
Normal	Green	(None)
Warning	Yellow	Black exclamation mark (!) in a yellow triangle 
Error	Red	White X mark in a red circle 

Clicking the system status displays the [System Event Log] window.

- Active MMB

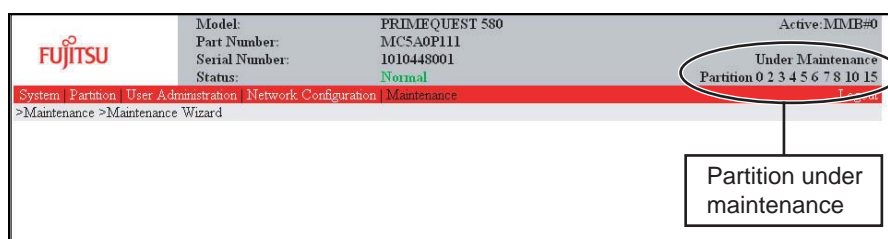
The number of the active MMB connected to the Web-UI is displayed.

- Maintenance status

"Under Maintenance" is displayed in orange while the PRIMEQUEST-series machine is being maintained by a maintenance engineer using the [Maintenance Wizard] menu.

Nothing is displayed for this status when the PRIMEQUEST-series machine is not under maintenance.

Remarks: The display of this item on the PRIMEQUEST 500A/500-series machine may differ from the above depending on the MMB firmware version. When the PRIMEQUEST-series machine is under maintenance, the information area is displayed on a gray background with the number of the partition under maintenance shown beneath "Under Maintenance," as shown below.



- Navigation bar

Any of the menus can be selected for display in the submenu frame.

The name of the selected menu is displayed in black, and the names of the other menus, which are not selected, are displayed in white.

- Submenu hierarchy display bar

The path to the submenu displayed in the submenu frame is displayed. Clicking a level in the path displays the corresponding window.

- [Logout]

Clicking [Logout] results in logout from the Web-UI.

2.4 Submenu Frame

The submenu frame displays the menu selected from the navigation bar in the information frame.

Here, the window displayed for the PRIMEQUEST 580A/540A/580/540/480/440 is described as an example.

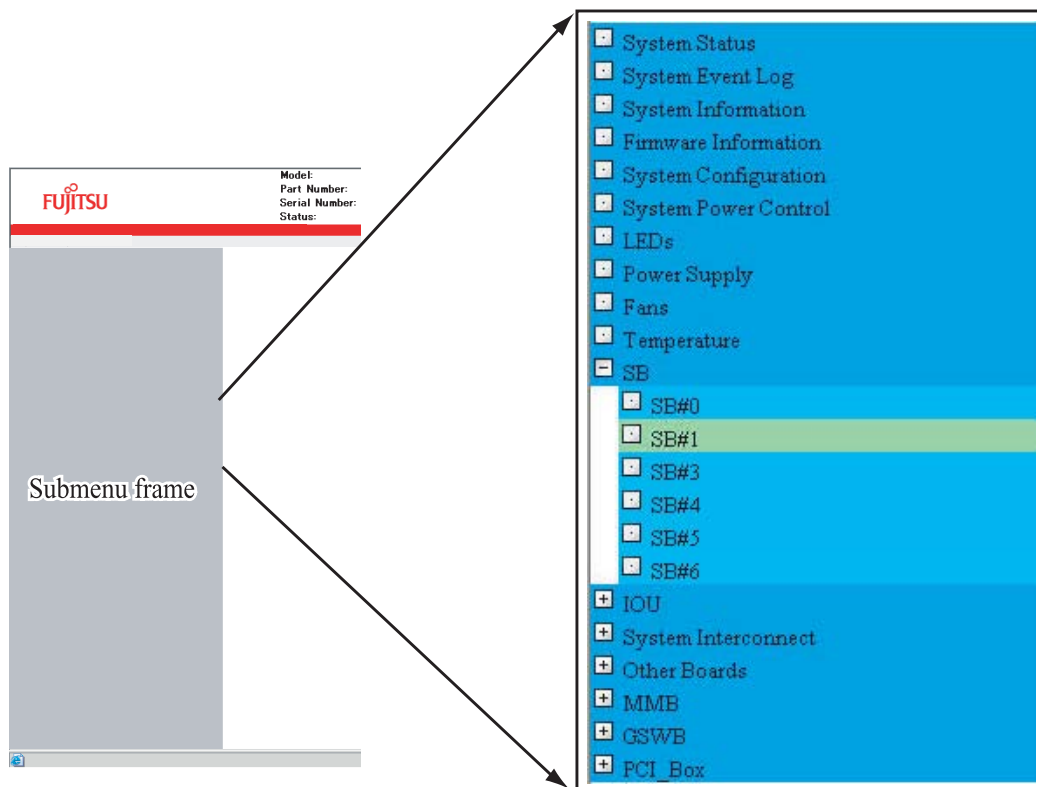


Figure 2.3 Submenu frame

The following applies to the displayed menu:

- Up to three layers of submenus are displayed.
- One of the following icons is displayed to the left of each submenu item to indicate whether the item has a lower layer:
 - ☐ : The submenu item has a lower layer of items. :
 - ☒ : The submenu item has a lower layer of items, and the expanded node displays these items.
 - ☐ : The submenu item has no lower layer of items.
- A submenu item is displayed in reverse video when the cursor is placed on it.
- Selection of an item is indicated by a different background color.

2.5 Content Display Frame

The content display frame displays the window corresponding to the menu item selected from the navigation bar in the information frame or from the submenu in the submenu frame. Here, the window displayed for the PRIMEQUEST 580A/540A/580/540/480/440 is described as an example.

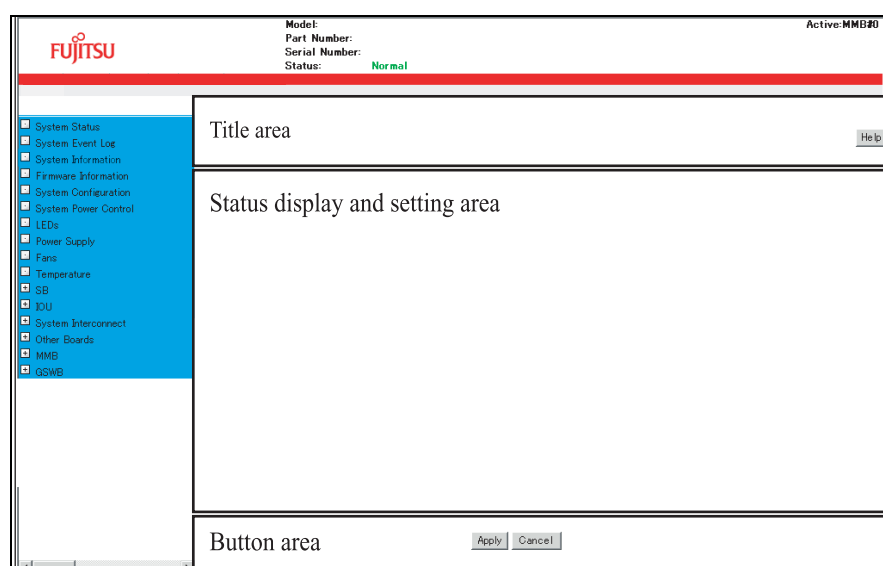


Figure 2.4 Content display frame

The content display frame is split into the following three areas:

- Title area

This area displays the title of the displayed content. The area also has the [Help] button, which is used to display the Help for the content, and the [Refresh] button, which is used to reload data.

Clicking the [Help] button displays the Help. The Help window is displayed when the button is clicked.

The [Refresh] button reloads only the data in the content display frame. The [Refresh] button is displayed only in a window subject to automatic refresh, and it is not displayed in a window used only for configuring data settings without allowing automatic status changes.

- Status display and setting area

This area displays status information and settings for the displayed content. Components such as input fields, radio buttons, and check boxes are grayed out for users who have only the privilege to display information, thereby preventing them from configuring settings.

- Button area

This area displays buttons used for actions involving the data in the status display and setting area. The [Apply] and [Cancel] buttons are usually displayed.

Note that the button area is not displayed in cases where the displayed content requires no input or the user has only the privilege to display information.

- Dialog box

Dialog boxes appear in this area for content display frame operations, such as clicking the [Apply] button. A dialog box notifies the user of an error, prompts for confirmation, or prompts for input of subsequently required information. The following two types of dialog boxes can be displayed:

- Warning dialog box

This dialog box notifies the user of an error such as an input error.

Example:



- Confirmation dialog box

This dialog box prompts the user to specify whether to continue processing.

Example:



2.6 Basic Operations in Web-UI Windows

- Access procedure

The procedure for accessing the MMB from the Web-UI is described below.

- 1 Start a Web browser.

Remarks:

- JavaScript must be enabled on the browser because the MMB Web-UI uses JavaScript.
- Download must be enabled on the browser because the MMB Web-UI is used to perform downloads.

- 2 Enter one of the following addresses:

Standard	http:// nodename:adminport
SSL	https:// nodename:adminport

For "nodename," specify the virtual IP address, physical IP address, or corresponding FQDN of the active MMB.

For "adminport," specify the port number assigned to the MMB management port (The default value is 8081 for Standard or 432 for SSL.)

- 3 Enter the following user account and password, and then click the [Login] button.

Remarks:

If the MMB is starting for the first time or its settings have not been changed, the following default user account and password are in effect and you are asked to change the default password.

User name ID	Administrator
Password	Password set by the Fujitsu certified service engineer at the time of device setup.

The procedure for displaying the desired Web-UI window is described below.

- 1 Select the appropriate menu item from the navigation bar in the information frame to display the corresponding menu in the submenu frame.
The submenu frame then displays the menu.
- 2 Select the window from the submenu displayed in the submenu frame.
The content display frame then displays the window.
- 3 Confirm and specify information in the window.

Note: When using the MMB Web-UI on Internet Explorer, if it takes two minutes or longer to check the execution of processing and indicate the completion of processing with the related dialog box displayed, connection to the MMB Web-UI is cut off. In such case, log in again to the MMB Web-UI.

The step for exiting from the Web-UI window is described below.

- 1 Click [Logout] at the right end of the navigation bar in the information frame.
This results in logout from the Web-UI.

- Displaying and using a Window

Each field in a window can be displayed and used as follows:

- Character string input field (text field)

A character string can be entered in the field.

Input of a character string

- Selection field (pulldown list)

Click the [▼] button to display the list from a pulldown menu, and select a value from the list.

Selection ▼

- Setting button (button)

Apply Cancel

- [Apply] button

When this button is clicked, the system checks the validity of the data entered in character string input fields and selected values in the selection fields and other specified data in the window. If invalid data is found, a warning dialog box appears.

For example, if the [Apply] button is clicked with an invalid IP address such as 255.255.255.255 entered in the IP address input field, the warning dialog box shown below appears.



When the [OK] button is clicked in the warning dialog box, the window scrolls until the input error location is displayed, and the cursor is displayed in the input error location.

If the entered data may have a significant effect on the system, a confirmation dialog box for continuing processing is displayed.

- [Cancel] button
When this button is clicked, the data entered in the character string input fields and selected values in the selection fields are not applied in the system, and the state prior to entry of the data is restored.
- Selection of a single option (radio button)
Clicking [○], an option button, selects the corresponding element. Only one button can be selected in the field.
Clicking [○] (off) changes it to [●] (on).

- Selection of multiple options (check box)
Clicking [□], a check box, selects the corresponding field.
Clicking [□] (off) changes it to [■] (on).

- Link
Clicking a link results in a jump to the destination window.
LINK
- IP address input field
A number ranging from 0 to 255 can be entered in each input field.

- MAC address input field

A hexadecimal number ranging from 00 to FF can be entered in each input field. Case sensitivity is not considered for the hexadecimal numbers A, B, C, D, E, and F.

A diagram showing a MAC address input field. It consists of six rectangular boxes arranged horizontally, separated by colons. Each box is intended for a two-digit hexadecimal value.

Note: During a download operation through the MMB Web-UI using Internet Explorer running under Windows XP SP2 or later, the dialog box for confirming the download destination may be blocked from opening. In this event, do as follows:

- 1 Click [Tool] → [Internet Option] → [Privacy] → [Block Popups].
- 2 In the [Block Popups] dialog box, add the MMB URL to the addresses at "Address of Web site to allow."

2.7 User Privilege Levels

The following table lists the user privilege levels used to restrict operation of the PRIMEQUEST-series machine.

Table 2.1 User privilege levels

Privilege level	Description
User	Permitted only to refer to the PRIMEQUEST-series machine status. Specifying system configuration information and turning on or off power to a partition are not permitted.
CE	Permitted to refer to the PRIMEQUEST-series machine status. Changes to user management and network settings are not permitted, but turning on or off power to a partition or the system is permitted. Maintenance operations are permitted. The following operations are not permitted unless the Maintenance Wizard is used for the operations: <ul style="list-style-type: none"> • Turning the power on or off • Changing the partition configuration • Configuring reserved SB settings
Operator	Permitted to refer to the system status and configure system settings. Changes to user management settings or the LAN configuration are not permitted. The following operations are not permitted: <ul style="list-style-type: none"> • Operating power from the [System Power Control] window • Changing the fan status • Changing the partition configuration • Configuring Reserved SB settings
Administrator	Permitted to perform every type of operation.

2.8 Switching to Operations with Software of Another Type

This section describes how to switch to operations with software of another type among the following types of software:

- MMB firmware
- PSA
- GSWB firmware (only for the PRIMEQUEST 580A/540A/580/540/480/440)
- EFI firmware

The Web-UI or CLI can be used to issue instructions for this operation from a PC connected to the management LAN.

Switching with Web-UI operations and switching with CLI operations are briefly described below.

Switching with Web-UI operations

[Figure 2.5](#) shows an outline of switching with Web-UI operations.

Note: Switching to operation with the GSWB firmware can be done only on a PRIMEQUEST 580A/540A/580/540/480/440 server.

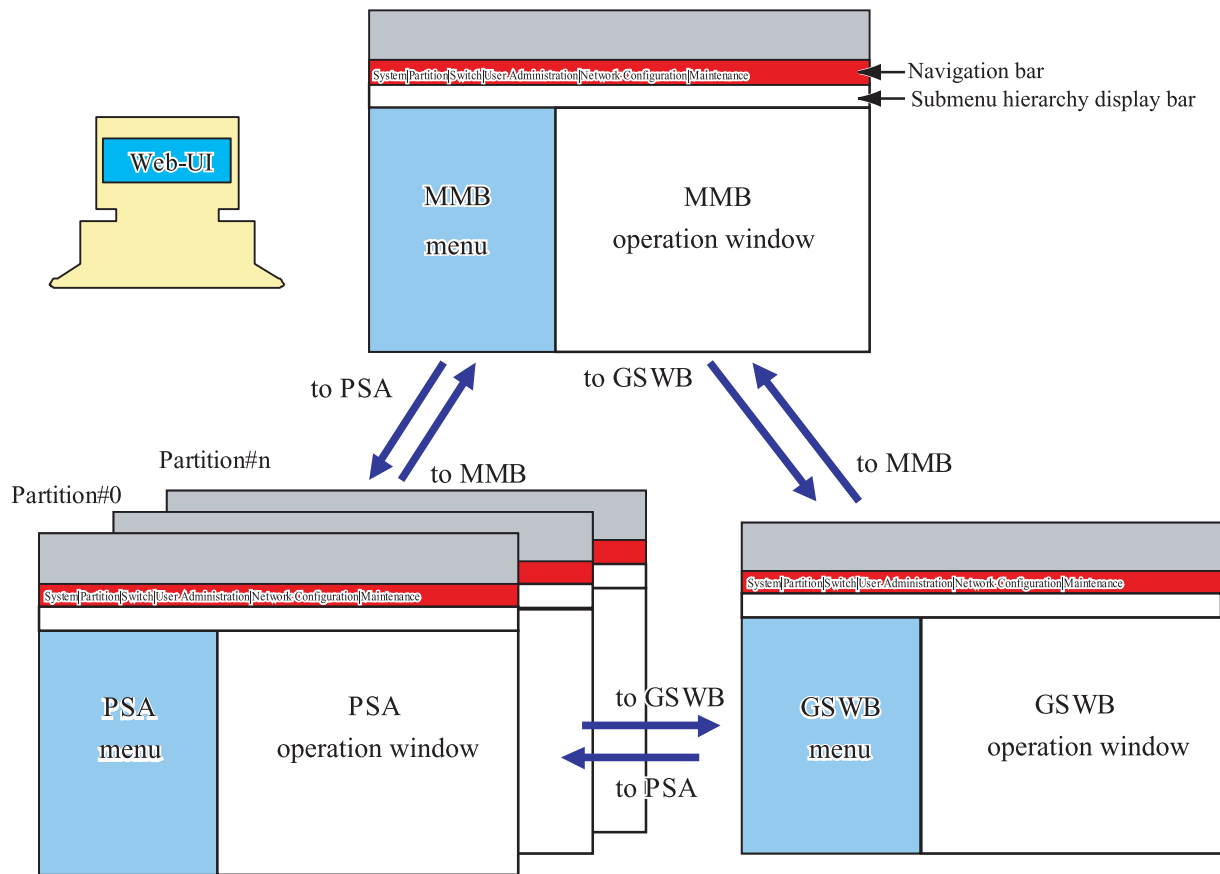


Figure 2.5 Switching with Web-UI operations

The navigation bar and menus are used for switching.

The current software used for operations can be determined from the submenu hierarchy display bar, which shows the menu path to the displayed window.

to PSA

- 1 Click [Partition] on the navigation bar.
- 2 Select [Partition#n] → [PSA] from the Partition menu.
→ The PSA menu of the selected Partition#n is displayed.

to GSWB (only for the PRIMEQUEST 580A/540A/580/540/480/440)

- 1 Click [Switch] on the navigation bar.
→ The GSWB menu is displayed.

to MMB

- 1 Click [System] on the navigation bar.
→ The MMB menu is displayed.

Switching with CLI operations

An outline of switching with CLI operations is provided below.

The Telnet or SSH command from a PC connected to the management LAN is used in CLI operations to switch to the target software for particular operations. The basic operating procedure is to log in to the OS or firmware of the target of this operation by executing the Telnet or SSH command with the corresponding IP address specified. If the operation target is PSA, the MMB IP address and the port number of the login partition are required. Information required for remote login, such as an IP address, the port number of a partition, an account ID and a password, must be specified in advance.

Logging in to the MMB

Specify the MMB IP address, and log in with a remote connection.

Note: To log in to the MMB using telnet or SSH from an external device, click [Network Configuration] → [Network Protocols], and set [Enable] for the necessary parameters in the [Network Protocols] window.

Logging in to the GSWB (PRIMEQUEST 580A/540A/580/540/480/440 only)

Specify the GSWB0 (or GSWB1) IP address, and log in with a remote connection.

Note: To log in to GSWB#0 or GSWB#1 using telnet or SSH from an external device, one of the following two methods can be used (only for the PRIMEQUEST 580A/540A/580/540/480/440):

- Click [Switch] → [GSWB#0] → [Management] → [Telnet], and set [Enable] for the necessary parameters in the [Telnet] window.
- Click [Switch] → [GSWB#0] → [Management] → [SSH Status], and set [Enable] for the necessary parameters in the [SSH Status] window.

Logging in to the GSWB from the CLI of the MMB (PRIMEQUEST 580A/540A/580/540/480/440 only)

Specify 0 or 1, and execute the connect GSWB command to log in to the GSWB CLI.

```
connect GSWB {0|1}
```

Logging in to the EFI

The EFI is used for special cases such as for changing boot control.

- 1 Click [Partition] → [Partition#x] → [Boot Control] on the MMB Web-UI, and in the [Boot Control] window, specify an instruction to wait at EFI [Boot Manager Menu] during boot of the relevant partition.
- 2 Start the partition from the MMB Web-UI.
→ The EFI [Boot Manager Menu] window is displayed.

CHAPTER 3 Starting and Stopping the System

3.1 Component Names and Functions

The following figures show the appearances of the PRIMEQUEST 500A/500/400 series.

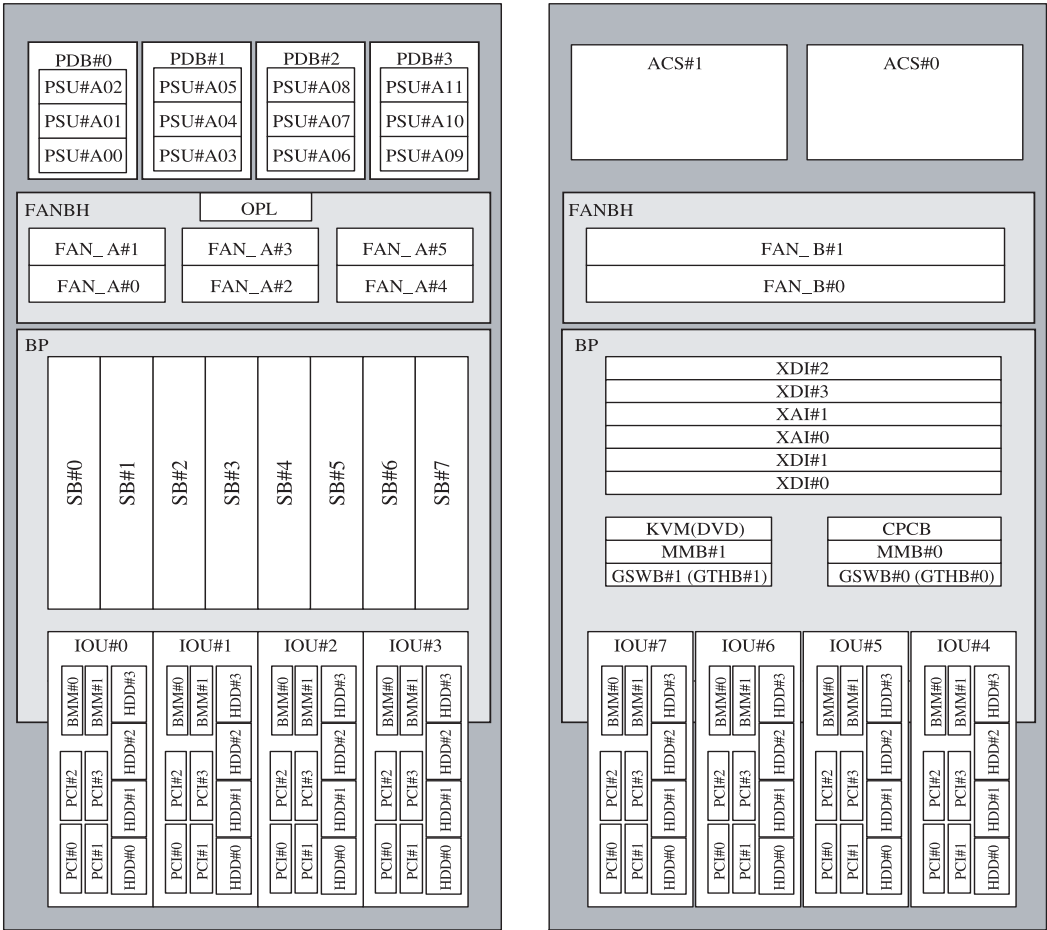


Figure 3.1 PRIMEQUEST 580A/540A/580/540/480/440



Figure 3.2 PRIMEQUEST 520A/520/420

The names and functions of individual PRIMEQUEST components are listed below.
The PRIMEQUEST components are installed as shown below.



(Note) Only the PRIMEQUEST 580A/580 series supports BMM#1.

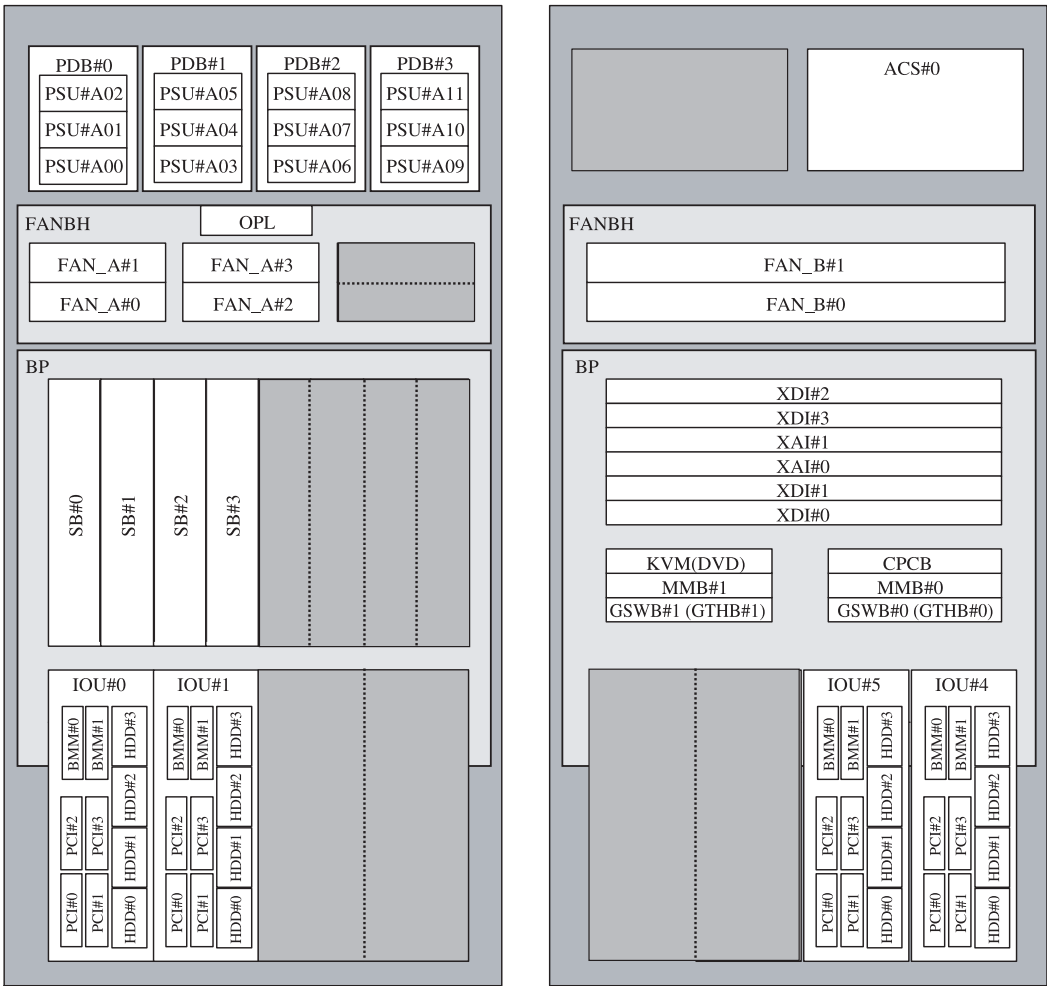
Front

Rear

PDB: Power Distribution Board
PSU: Power Supply Unit
OPL: OP-Panel
BP: Back Plane
SB: System Board
IOU: IO Unit
BMM: BMC module
PCI : PCI slot
HDD: Hard Disk Drive

ACS: AC Section
XDI: Xbar Data Interconnect board
XAI: Xbar Address Interconnect board
FAN: Fan
KVM: KVM interface unit
CPCB: Clock and PCI_Box Control board
MMB: Management Board
GSWB: Gigabit Switch Board
GTHB: Gigabit Through Board

Figure 3.3 General configuration of the PRIMEQUEST 580A/580/480



(Note) Only the PRIMEQUEST 540A/540 series supports BMM#1.

- Front

PDB: Power Distribution Board

PSU: Power Supply Unit

OPL: OP-Panel

BP: Back Plane

SB: System Board

IOU: IO Unit

BMM: BMC module

PCI: PCI slot

HDD: Hard Disk Drive
- Rear

ACS: AC Section

XDI: Xbar Data Interconnect board

XAI: Xbar Address Interconnect board

FAN: Fan

KVM: KVM interface unit

CPCB: Clock and PCI_Box Control board

MMB: Management Board

GSWB: Gigabit Switch Board

GTHB: Gigabit Through Board

Figure 3.4 General configuration of the PRIMEQUEST 540A/540/440

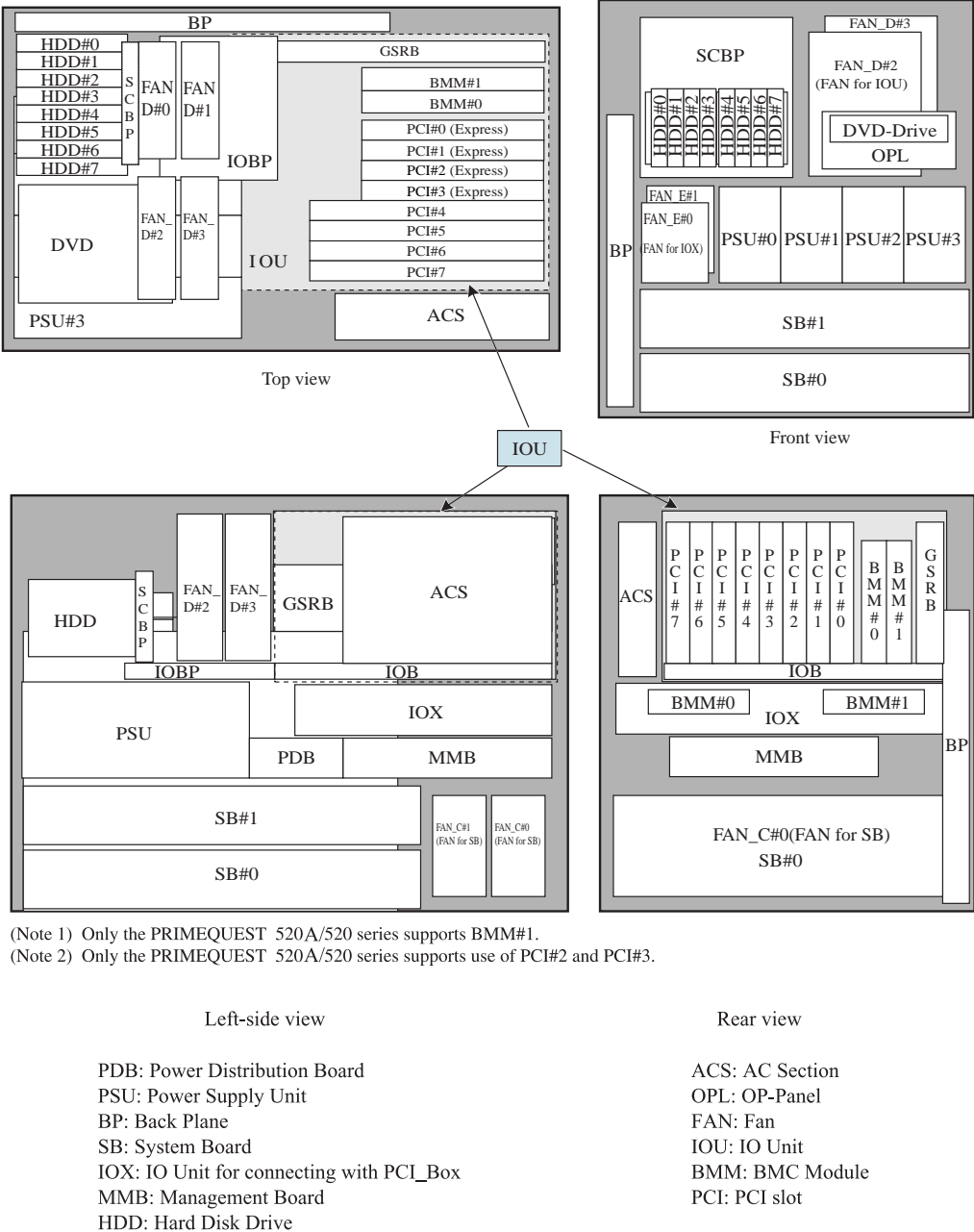


Figure 3.5 General configuration of the PRIMEQUEST 520A/520/420

3.2 Powering On and Powering Off the Main Unit and the Entire System

This section explains how to power on and power off the main unit as follows:

Note: FAN_E#0 and FAN_E#1 of the PRIMEQUEST 520A/520/420 rotate not only when the system is operating, but also when it is on standby.

- [Powering on and off by controlling the main power \(→ 3.2.1\)](#)
- [Power-on and power-off procedures for the entire system \(→ 3.2.2\)](#)

3.2.1 Powering on and off by controlling the main power

This section explains powering on and off through control of the main power.

The circuit breakers of the PRIMEQUEST 580A/540A/580/540/480/440 are the main power switches on the main unit. They also work as circuit protectors that protect the main unit by detecting overcurrents.

- [Power-on procedure using circuit breakers \(PRIMEQUEST 580A/540A/580/540/480/440\) \(→ 3.2.1.1\)](#)
- [Power-on procedure \(PRIMEQUEST 520A/520/420\) \(→ 3.2.1.2\)](#)
- [Power-off procedure using circuit breakers \(PRIMEQUEST 580A/540A/580/540/480/440\) \(→ 3.2.1.3\)](#)
- [Power-off procedure \(PRIMEQUEST 520A/520/420\) \(→ 3.2.1.4\)](#)

3.2.1.1 Power-on procedure using circuit breakers (PRIMEQUEST 580A/540A/580/540/480/440)

Note on power-on

Switch on the circuit breakers from the base cabinet.

Unless all circuit breakers are switched on, the system may not start normally because of insufficient PSU power supply. Switch on all circuit breakers in quick succession.

Remarks: Wait at least 10 seconds after the circuit breakers switch off before switching them on again.

If a circuit breaker is switched off due to the detection of overcurrent, a failure (e.g., short circuit) may have occurred in the main unit. Switching the circuit breaker back on again in that status may also switch off the power distribution board circuit breaker or cause burnout in the main unit. Therefore, if a circuit breaker is switched off due to the detection of overcurrent, contact a Fujitsu certified service engineer without switching the circuit breaker back on.

Power-on procedure

- 1 Switch on the circuit breakers on the main unit.
Open the rear door of the base cabinet, and set the all breaker switches near the top of the cabinet to the | side.

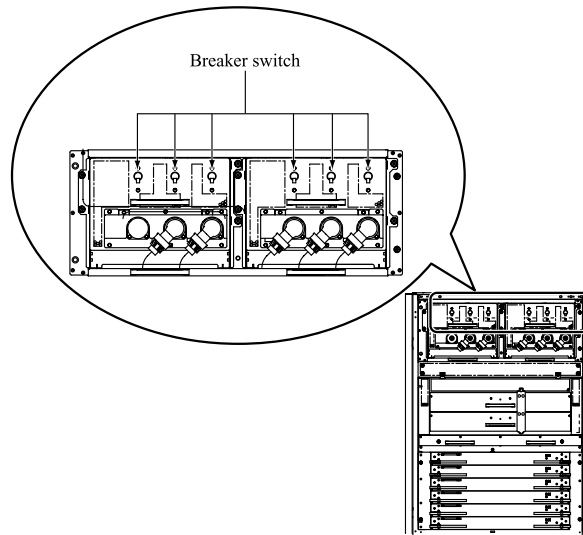


Figure 3.6 Circuit breaker locations (base cabinet)

Notes:

The number of switches depends on the mode of power supply to the main unit. [Figure 3.6](#) is an example of a PRIMEQUEST 580A/580/480 with an expansion PSU installed.

- 2 When an Extended Power Cabinet is connected to PRIMEQUEST 580A/580/480, turn on the main line switch of the Extended Power Cabinet.
Open the rear door of the Extended Power Cabinet and set all the switches to the | side.

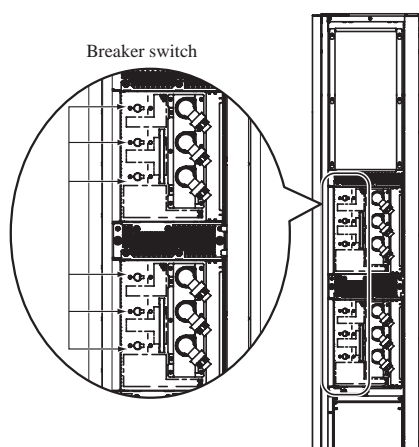


Figure 3.7 Main line switch location (Extended Power Cabinet)

Note:

The number of switches depends on the device configuration.

[Figure 3.7](#) is an example of the Extended Power Cabinet with an expansion PSU installed.

3.2.1.2 Power-on procedure (PRIMEQUEST 520A/520/420)

Remarks: Wait at least 10 seconds before reconnecting the power cable to the ACS after disconnecting it.

If the power distribution box is switched off due to the detection of overcurrent, a failure (e.g., short circuit) may have occurred in the main unit. Switching the power distribution box back on again in that status may also switch off the power distribution board circuit breaker or cause burnout in the main unit. Therefore, if the power distribution box is switched off due to the detection of overcurrent, contact a Fujitsu certified service engineer without switching the power distribution box back on.

Power-on procedure

- 1 Connect the power cable to the ACS of the main unit, and then connect the power cable to the power distribution box.

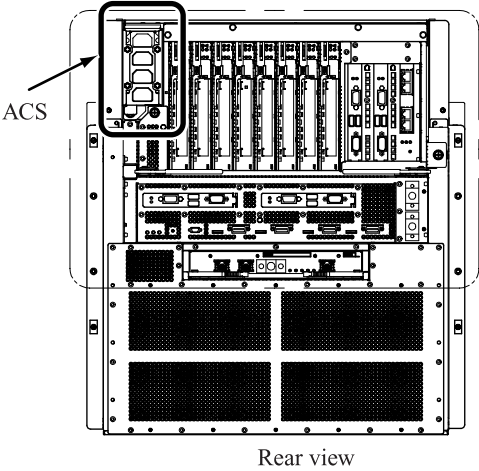


Figure 3.8 ACS location

3.2.1.3 Power-off procedure using circuit breakers (PRIMEQUEST 580A/540A/580/540/480/440)

Power-off procedure



Data destruction

When power to the main processing unit is turned off in an operation from the MMB, only the following LEDs of the OPL and the MMB stay lit:

- MMB-Ready LED of the OPL
- Power LED of the MMB
- Ready LED of the MMB
- Active LED of the MMB

Before turning off the main power (UPS, power distribution box, circuit breaker switches, etc.), be sure to confirm that all LEDs other than the above are off. Otherwise, turning off the main power may cause damage to data.

- 1 Turn off the main unit.
Use the management board (MMB) for the power-off operation. For details, see [Section 3.3.2, "Power-on and power-off procedures for partitions."](#)
- 2 Confirm that only the following LEDs of the OPL and the MMB are lit:
 - MMB-Ready LED of the OPL
 - Power LED of the MMB
 - Ready LED of the MMB
 - Active LED of the MMB
- 3 When an Extended Power Cabinet is connected to PRIMEQUEST 580A/580/480, turn off the main line switch of the Extended Power Cabinet.
Open the rear door of the Extended Power Cabinet and set all the switches to the O side.
Note:
The number of switches depends on the device configuration.
[Figure 3.6](#) is an example of the Extended Power Cabinet with an expansion PSU installed.
- 4 Turn off the main line switch of the main unit.
Open the rear door of the main unit and set all of the circuit breaker switches on the upper part of the cabinet to the O side.
Note:
The number of switches depends on the mode used to supply power to the main unit.
[Figure 3.7](#) is an example of PRIMEQUEST 580A/580/480 with an expansion PSU installed.

- 5 When an Extended I/O Cabinet is connected, turn off its main line switch.
Open the front door of the Extended I/O Cabinet, set all of the switches in the power distribution box to the O side.

Remarks:

The types of the power distribution box and main line switch of the Extended I/O Cabinet depend on the user area. (See [Figure 3.7.](#))

The power distribution box of the Extended I/O Cabinet for use in Europe includes no main line switch. Therefore, turn off the circuit breaker on the power distribution board to which the input power of the Extended I/O Cabinet is connected.

3.2.1.4 Power-off procedure (PRIMEQUEST 520A/520/420)

Power-off procedure



Data destruction

When power to the main processing unit is turned off in an operation from the MMB, only the following LEDs of the OPL and the MMB stay lit:

- MMB-Ready LED of the OPL
- Power LED of the MMB
- Ready LED of the MMB
- Active LED of the MMB

Before turning off the main power (UPS, power distribution box, circuit breaker switches, etc.), be sure to confirm that all LEDs other than the above are off. Otherwise, turning off the main power may cause damage to data.

- 1 Turn off the main unit.
Use the management board (MMB) for the power-off operation. For details, see [Section 3.3.2, "Power-on and power-off procedures for partitions."](#)
- 2 Confirm that only the following LEDs of the OPL and the MMB are lit:
 - MMB-Ready LED of the OPL
 - Power LED of the MMB
 - Ready LED of the MMB
 - Active LED of the MMB
- 3 Disconnect the power cable from the power distribution box.

3.2.2 Power-on and power-off procedures for the entire system

This section explains power-on and power-off procedures for the entire system and how to check the power status. The power-on and power-off procedures require Administrator authority.

- [MMB Web-UI operations](#) (→ [3.2.2.1](#))
- [Command line interface \(CLI\) operations](#) (→ [3.2.2.2](#))
- [Checking the system power status](#) (→ [3.2.2.3](#))

Remarks:

For details on the MMB menu configuration and operations, see [CHAPTER 5, "Web-UI Operations"](#) in Part III, "MMB."

3.2.2.1 MMB Web-UI operations

This section explains power-on and power-off procedures using the MMB Web-UI window.

[CHAPTER 2](#) explains the basic operations of the MMB Web-UI screen. See [Section 2.6, "Basic Operations in Web-UI Windows"](#) as required.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Power-on procedure using MMB Web-UI

- Procedure
 - 1 Switch on the power switches on the MMB and peripherals.
 - 2 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
 - 3 Click [System] → [System Power Control] from the Web-UI menu.
The [System Power Control] window is displayed.



Figure 3.9 [System Power Control] window

- 4 Select [Power On-all partition(s)] or [Power On the Chassis only] (PRIMEQUEST 580A/540A/580/540/480/440 only), and then click the [Apply] button.

System power is turned on.

Remarks:

If [Power On – all partition(s)] is selected while only cabinet power is on, power to every partition is turned on.

If [Power On the Chassis only] is selected, power to components other than the system board (SB) and IO Unit is turned on (this includes power to the GSWB).

Table 3.1 Explanation of the [System Power Control] window

Item	Description
Power On – all partition(s)	Power to every partition is turned on. If this item is selected while only cabinet power is on, power to every partition is turned on.
Power On the Chassis only (PRIMEQUEST 580A/540A/580/ 540/480/440 only)	Power to components other than the SB and IO Unit is turned on. This power-on operation includes the GSWB.
Power Off – the Chassis (all partition(s) will be automatically shutdown.)	Every partition is shut down, and cabinet power is turned off.
Force Power Off	Power is turned off without shutting down partitions.

Power-off procedure using MMB Web-UI



Data destruction

Before shutting down power, make sure the following events have occurred; otherwise, data may be destroyed:

- All applications have completed processing.
- No user is using a component.

The Power LED on the operator panel is turned off when the main unit is turned off. Before shutting down main power (to the UPS, power distribution box, and circuit breakers), make sure that the LED is off. If necessary, back up files before shutting down the power.

Note:

Be sure to use the OS shutdown function to turn off power to any partition in which Windows is installed.

In an emergency, such as no response from the system, use MMB Power-Off (Force Power Off) to turn off power.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

- 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
- 2 Click [System] → [System Power Control] from the MMB menu.
The [System Power Control] window is displayed.



Figure 3.10 [System Power Control] window

- 3 Click [Power Off the Chassis (all partitions(s) will be automatically shutdown)] or [Force Power Off], and click the [Apply] button.
System power is turned off.

Remarks:

If [Force Power Off] is selected, power is turned off without shutting down any OS running a partition.

3.2.2.2 Command line interface (CLI) operations

This section explains how to use the MMB command line interface (CLI) for power control over the entire system. These operations require Administrator authority.

Accessing the CLI

The following two methods of CLI access can be used:

- Access via an MMB serial port
- Access from a remote PC via an MMB management LAN
- Access via a serial interface
 - 1 Connect the MMB to a terminal (e.g., notebook PC) by using an RS-232C cross cable.
 - 2 Start terminal software (e.g., Windows HyperTerminal) on the terminal, and set up the terminal software as follows.

Table 3.2 Terminal software setting

Setting item	Value
Transfer rate (bps)	19200
Data bit	8
Parity	None
Stop bit	1
Flow control	No
Emulation	VT100

- 3 A login prompt is displayed. Enter your user name and password to log in.
- Access via a management LAN interface
 - 1 Connect the MMB to a remote PC by using a straight LAN cable.
 - 2 Start Telnet or SSH Client on the remote PC, and enter the MMB IP address and a Telnet or SSH port number to establish a connection.
 - 3 Enter the account and password to log in.

Notes:

MMB supports only the connection functions available under the SSH V2 protocol. Therefore, to establish a connection with the MMB using the SSH protocol, terminal software compatible with SSH V2 must be prepared.

Power-on operation using the CLI

The entire system or each specified partition can be turned on.

- Command syntax

```
power on {chassis | partition {all | <partition#> [{, | -}
<partition#>]}}
```

- The command turns on the entire system or each specified partition.
- If an unconfigured partition is specified in a parameter, the command ignores the partition.
- If power is already on to a partition specified in a parameter, the command takes no action for the partition.

- Options

chassis	Specifies that the cabinet be turned on. The command does not turn on the partitions.
partition	Specifies that each specified partition (partition#) be turned on. If the cabinet has not been turned on, the command turns on the cabinet and then turns on the partition. Partitions can be specified in the following three ways: <ul style="list-style-type: none"> • Specify "all" for all defined partitions. • Specify partition numbers delimited by a comma. • Specify a range of partition numbers.

Power-off operation using the CLI

The entire system or each specified partition can be turned off.

- Command syntax

```
power off {chassis | partition { all | <partition#> [{, | -}
<partition#>]}} [force]
```

- The command turns off the entire system or each specified partition.
- If an unconfigured partition is specified in a parameter, the command ignores the partition.
- If power is already off to a partition specified in a parameter, the command takes no action for the partition.

- Options

chassis	Specifies that the cabinet be turned off. Before turning off the cabinet, the command shuts down every OS running in a partition.
partition	Shuts down the OS running in each specified partition (partition#) and then turns off the partition. Partitions can be specified in the following three ways: <ul style="list-style-type: none">• Specify "all" for all defined partitions.• Specify partition numbers delimited by a comma.• Specify a range of partition numbers.
force	Specifies that power be forcibly turned off without shutting down any OS running in a partition.

3.2.2.3 Checking the system power status

This section explains how to check the system power status.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Checking the system power status by using MMB

- 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
- 2 Select [System] → [Power Supply] from the MMB menu.
The [Power Supply] window is displayed.

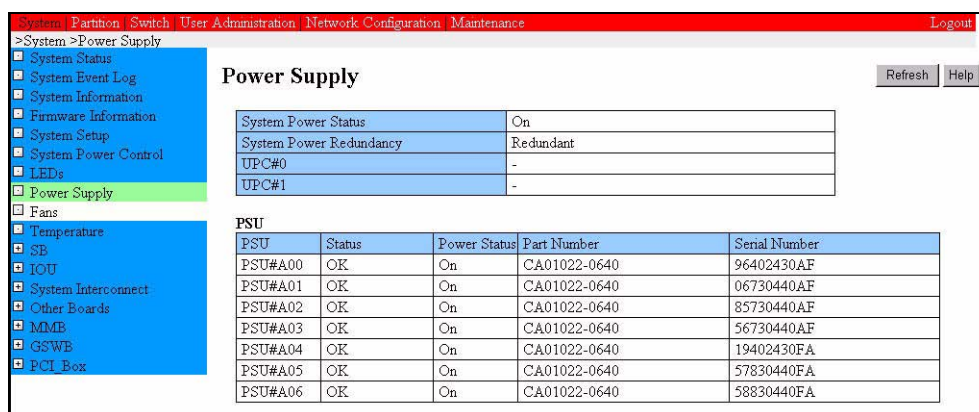


Figure 3.11 [Power Supply] window

The PRIMEQUEST system (cabinet) power status is displayed at [System Power Status].

Explanation of displayed information

Table 3.3 Displayed and setting items in the [Power Supply] window

Item	Description
System Power Status	The system (cabinet) power status is displayed as follows: <ul style="list-style-type: none">• [On]: Power is on.• [Standby]: The partition is in the standby state.
System Power Redundancy	The redundancy status of the power supply unit is displayed as follows: <ul style="list-style-type: none">• [Redundant] The PSU is redundant.• [Non-redundant: Sufficient Resources] PSU redundancy has been lost, but there are enough PSUs for system operation.• [Non-redundant: Insufficient Resources] PSU redundancy has been lost, and there are not enough PSUs for system operation.
UPS#x	The status of a UPS detected by the UPC interface is displayed as follows: <ul style="list-style-type: none">• [AC Lost]: Power failure• [Battery Lost]: The battery has been depleted.• [Failed]: Failure has occurred.• [-]: Normal status or the UPS is not connected. Notes: The UPC interface could not recognize a UPS, if it is connected. Therefore, when no problem is detected, "-" is displayed.
Status	The PSU status is displayed as follows: <ul style="list-style-type: none">• [OK]: Normal• [Not present]: Not mounted.• [Failed]: Failure has occurred.• [Predictive Fail]: Expecting a failure.• [A/C Lost]: Power failure.
Power Status	This indicates whether a PSU is on or off.
Part Number	The part number of a PSU is displayed. Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	The serial number of a PSU is displayed. Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer

3.3 Powering On and Powering Off Partitions

This section explains how to power on and power off partitions as follows:

- [Power-on and power-off methods for partitions \(→ 3.3.1\)](#)
- [Power-on and power-off procedures for partitions \(→ 3.3.2\)](#)
- [Checking the partition power status \(→ 3.3.3\)](#)

3.3.1 Power-on and power-off methods for partitions

This section explains methods and units of partition power-on and power-off as follows:

- [Methods and unit of power-on \(→ 3.3.1.1\)](#)
- [Methods and unit of power-off \(→ 3.3.1.2\)](#)

See the following for the power-on and power-off procedures:

- [Power-on and power-off procedures for partitions \(→ 3.3.2\)](#)

3.3.1.1 Methods and unit of power-on

Power-on methods

The following two partition power-on methods can be used:

- External terminal (MMB Web-UI window operations)

An external terminal can be used (via the MMB Web-UI window) for the power-on operation. The external terminal provides two power-on modes: power-on of all partitions and power-on of individual partitions.

- Scheduled operation (auto power control based on a set schedule)

Scheduled operation (auto power control) can be used for the power-on operation. In the scheduled operation mode, the power-on time is registered in advance so that all the partitions can be automatically turned on at the same time or the individual partitions can be automatically turned on as scheduled.

Unit of power-on

The unit of power-on depends on the power-on method as shown below.

Table 3.4 Methods and unit of power-on

Power-on method	Unit of power-on		Remarks
	All partitions	Individual partitions	
External terminal (MMB Web-UI window)	Y	Y	
Scheduled operation	Y	Y	Auto power control

Y: Can be turned on

3.3.1.2 Methods and unit of power-off

Power-off methods

The following four power-off methods can be used:

- Shutdown from the OS (recommended)

An OS command is used to shut down the OS. Usually, the OS of a partition is shut down to power off the partition. For the OS shutdown command used, see the relevant OS manual.

- MMB Web-UI window

An external terminal can be used (via the MMB Web-UI window) for the power-off operation. The external terminal can implement power-on of all partitions, several partitions, or a single partition.

- Scheduled operation

Scheduled operation (auto power control) can be used for the power-off operation. In scheduled operation mode, the power-off time is registered in advance so that all partitions can be automatically turned off at the same time or individual partitions can be automatically turned off as scheduled.

Remarks: Only Linux supports partition power-off by scheduled operation.

- Uninterruptible power supply unit (UPS)

The PRIMEQUEST 580A/540A/580/540/480/440 each have ports on the clock and PCI box control board (CPCB) as interfaces for external UPSs. The PRIMEQUEST 520A/520/420 each have these ports at the right on the rear of the unit. Two ports are provided to support dual power feed.

PRIMEQUEST supports dual power feed as an option. When connecting a UPS to use this option, connect the UPS to the respective power supply system.

Unit of power-off

The unit of power-off depends on the power-off method as shown below.

Table 3.5 Methods and unit of power-off

Power-off method	Unit of power-off		Remarks
	All partitions	Individual partitions	
External terminal (MMB Web-UI window)	Y	Y	
Scheduled operation	Y	Y	Auto power control
UPS	Y		At power failure

Y: Can be turned off

3.3.2 Power-on and power-off procedures for partitions

The system may use a single partition or multiple partitions. The power-on and power-off procedures for partitions are the same in either case. For operation with multiple partitions, however, the power-off sequence of other devices must be defined in advance.

The power-on and power-off procedures for partitions require Administrator authority.

- [Partition power-on procedures](#) (→ 3.3.2.1)
- [Shutdown and power-off of the partition OS](#) (→ 3.3.2.2)
- [Setting for automatic partition restart](#) (→ 3.3.2.3)

For details on the basic operations of the MMB Web-UI screen, see [Section 2.6](#), "[Basic Operations in Web-UI Windows](#)."

3.3.2.1 Partition power-on procedures

This section explains the following partition power-on procedures:

- Partition power-on procedure using MMB Web-UI
- Partition power-on procedure by scheduled operation

Partition power-on procedure using MMB Web-UI

MMB Web-UI can be used for power control over partitions.

- Procedure
 - 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
 - 2 Click [Partition] → [Power Control] from the MMB menu.
The [Power Control] window is displayed. This window displays only partitions to which an SB or IO Unit is assigned. This window displays only partitions to which an SB or IOU is assigned and which are ready to boot.

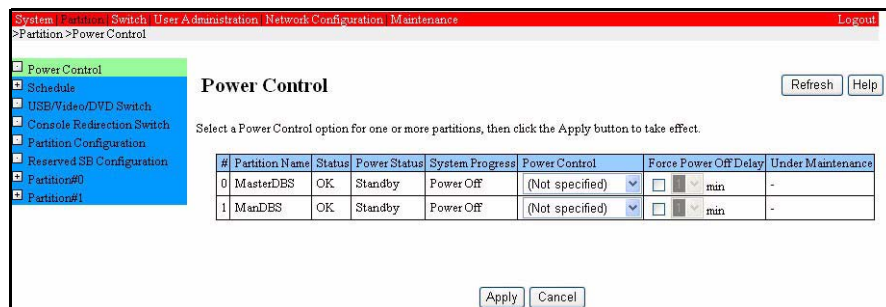


Figure 3.12 [Power Control] window

The # column shows partitions numbers.

For details about the [Power Control] window, see [Section 5.3.1, "\[Power Control\] window."](#)

- 3 To turn on a partition, select [Power On] for it in the [Power Control] column, and click the [Apply] button.

When the confirmation dialog box is displayed, click the [OK] button to execute power-on and the [Cancel] button to cancel power-on.

Note:

If the power to the partition is already ON, or the specified control fails because power-off is in progress, a warning is displayed.

- Explanation of the window

Table 3.6 Displayed and setting items in the [Power Control] window

Item	Description
#	An identification number for each partition is displayed. In the case of a PRIMEQUEST 580A/540A/580/540/480/440, the displayed partition number is from 0 to 15. In the case of a PRIMEQUEST 520A/520/420, a number from 0 to 3 is displayed. Note that this window does not display a partition to which no SB or IO Unit is assigned.
Partition Name	The name of each partition is displayed.
Status	The partition status is displayed as follows: <ul style="list-style-type: none"> • [OK]: The partition is operating normally. • [Degraded]: A component is faulty (the partition can operate by isolating the faulty component). • [Warning]: The partition is in the warning state (a failure will probably occur). • [Failed]: The partition failed.
Power Status	The partition power status is displayed as follows: <ul style="list-style-type: none"> • [On]: Power is on. • [Standby]: The partition is in the standby state.
System Progress	The progress state for the partition is displayed as follows: <ul style="list-style-type: none"> • Power Off: Partition power is off. • Power On In Progress: The partition is in power-on sequence. • Reset: The partition is reset. • POST XXXXh: Indicates that the partition has started POST Code=XXXXh processing. • Boot: The partition is in one of the following states: <ul style="list-style-type: none"> - The partition is being booted. - PSA is not installed. - Installation is in progress. - Backup or restoration using Systemcast Wizard is in progress. • OS Running: The OS is active. • OS Shutdown: The OS is shut down. • Panic: The system is in panic state. • Power Off In Progress: The partition is in power-off sequence. • Check Stop: The partition is stopped. • Initiate soft-shutdown: Starts countdown to Force Power Off.

Item	Description
Power Control	<p>The type of power control over a partition as described below can be selected by the user.</p> <p>For a partition that is on, [Power On] menu is not displayed. For a partition that is off, [Power Off], [Reset], [INIT], [Power Cycle], and [Force Power Off] menus are not displayed.</p> <ul style="list-style-type: none"> • [Power On]: Turns on the partition. • [Power Off]: Turns off the partition. • [Power Cycle]: Forcibly turns off the partition and turns it on again. • [Reset]: Resets the partition. • [INIT]: Issues the INIT interrupt to the partition. • [Force Power Off]: Forcibly turns off the partition. • [Not specified]: Takes no action for the partition. <p>Note: Executing INIT forcibly terminates applications running in the partition. Before executing INIT, stop important applications. Also, unmount unnecessary file systems.</p>
Force Power Off Delay	<p>When [Power Off] is selected, the power-off operation may fail because the shutdown instruction to the OS in the partition does not work normally. Here, the user can specify whether to forcibly turn off the partition in such a case.</p> <p>When Force Power Off is specified with a check mark in the check box, a specified time (one to nine minutes) can be set. When this specified time has passed, the power to the partition is forcibly turned off.</p> <p style="text-align: right;">Default: Force Power Off check box is unchecked.</p>
Under Maintenance	<p>This indicates whether a partition is under maintenance.</p> <p>[Maintenance]: The partition is under maintenance. [- (hyphen)]: The partition is not under maintenance.</p> <p>Partitions under maintenance are excluded from power control from this window.</p> <p>Remarks: The "Under Maintenance" item in the [Power Control] window may not be displayed on the PRIMEQUEST 500A/500-series machine, depending on the MMB firmware version. If it is not displayed, the number of the partition under maintenance is displayed beneath "Under Maintenance" in the information area.</p>

Remarks:

After the power to the cabinet is turned off, it cannot be turned again on for a certain interval. During this interval, [Power Control] is dimmed and not selectable.

Partition power-on procedure by scheduled operation

If scheduled operation is set for a partition, the partition is turned on at the specified time.

A daily, weekly, or monthly schedule can be set, or for the schedule for a specific day can be set. For details on schedule setting, see [Section 5.3.2, "Schedule menu."](#)

3.3.2.2 Shutdown and power-off of the partition OS

This section explains the following partition power-off procedures:

- Partition power-off procedure using MMB Web-UI
- Partition power-off procedure by scheduled operation
- Partition power-off procedure using a UPS

Note:

- Before powering off a partition, confirm that no one is logged in to the MMB Web-UI.
- If the following condition occurs, contact your Fujitsu certified service engineer. Until recovery from this fault, do not execute [Reset] or [Force Power Off] for a partition.
[Power off], [Reset], or [Force Power Off] is executed for a partition or a shutdown is executed from the operating system, and, as a result, "Error" is displayed for [Status] in the MMB Web-UI window (information frame). Furthermore, an attempt to display the status of each component in the MMB Web-UI window causes "Read Error" to be displayed for [Part Number] or [Serial Number].

Partition power-off procedure using MMB Web-UI

Note:

The Power-off procedure using the MMB Web-UI may not work for any partition in which Windows is installed. Be sure to use the OS shutdown function to turn off power to any partition in which Windows is installed. For information about the OS shutdown function, refer to the Windows OS manual or the description under [Section 3.4, "Remote Shutdown."](#)

- 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
- 2 Click [Partition] → [Power Control] from the MMB menu.
The [Power Control] window is displayed.



Figure 3.13 [Power Control] window

The # column shows partitions numbers.
For details about the [Power Control] window, see [5.3.1, "\[Power Control\] window."](#)

Remarks: The "Under Maintenance" item in the [Power Control] window may not be displayed on the PRIMEQUEST 500A/500-series machine, depending on the MMB firmware version. If it is not displayed, the number of the partition under maintenance is displayed beneath "Under Maintenance" in the information area.

- 3 To turn off a partition, select [Power Off] for it in the [Power Control] column, and click the [Apply] button.

The partition is turned off.

Note:

A partition in which Windows is installed may not shut down even when shutdown operation is performed via the MMB Web-UI. If Windows is installed in the partition, use the Windows shutdown function to shut down the partition. For details of the Windows shutdown function, refer to the Windows operating system manual or [Section 3.4, "Remote Shutdown."](#)

Partition power-off procedure by scheduled operation

If scheduled operation is set for a partition, the partition is turned off at the specified time.

A daily, weekly, or monthly schedule can be set, or the schedule for a specific day can be set. For details on schedule setting, see [Section 5.3.2, "Schedule menu."](#)

Remarks: Only Linux supports partition power-off by scheduled operation.

Partition power-off procedure using UPS

See [Section 3.6, "UPS Operation ,"](#) for the partition power-off procedure using a UPS.

3.3.2.3 Setting for automatic partition restart

This section explains how to specify the conditions for automatic partition restart. Setting for automatic partition restart requires Administrator authority.

CAUTION

Malfunction

Before any of the following operations is performed, [Disable] must be set for the Boot Watchdog in the [Watchdog] window of PSA.

- Booting from a CD-ROM disk
- Booting the system in single-user mode
- Backing up or restoring data by using SystemcastWizard

If any of the above operations is performed with [Enable] set for the Boot Watchdog, OS restart is attempted repeatedly for the specified number of times. The system then takes the specified action (Stop rebooting and Power Off, Stop rebooting, or Diagnostic interrupt assert). The number of retries of the OS restart and the actions to be taken can be set in the [ASR Control] window for the MMB-UI.

In the [ASR Control] window, check [Cancel Boot Watchdog], and click the [Apply] button. [Disable] can thus be forcibly set for the Boot Watchdog.

For details about the [Watchdog] window of PSA, see Section 7.15.1, "[Watchdog] window," in Part IV, "PSA."

Procedure

- 1 Select [Partition] → [Partition#x] → [ASR Control].

The [ASR Control] window is displayed.

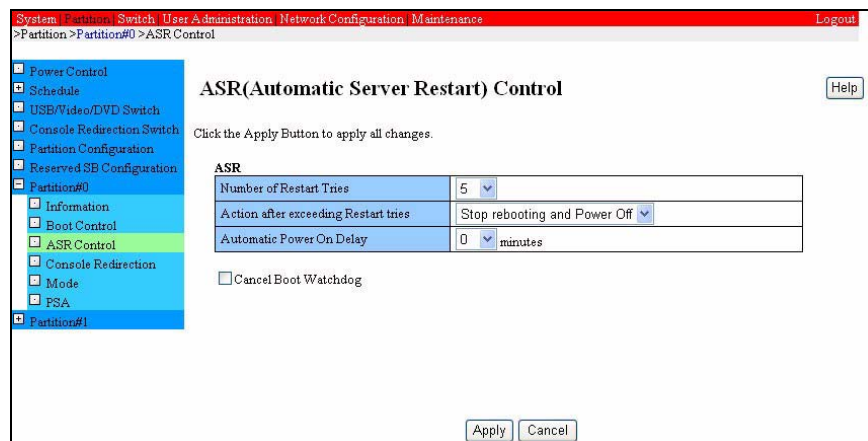


Figure 3.14 [ASR Control] window

- 2 Specify the conditions for the automatic restart.
- 3 To cancel Boot Watchdog, check the [Cancel Boot Watchdog] check box.
- 4 Click the [Apply] button.

Explanation of the [ASR Control] window

Table 3.7 Displayed and setting items in the [ASR Control] window

Item	Description
Number of Restart Tries	Specify the number of times the OS is restarted after Boot Watchdog or PSA Software Watchdog detects a timeout. A number ranging from 0 to 10 can be specified. Default: 5
Action after exceeding Restart tries	Specify the action that is taken if the above Number of Restart Tries is exceeded by the number of restarts that are repeated because of a Watchdog timeout. One of the following actions can be specified: <ul style="list-style-type: none">• Stop rebooting and Power Off• Stop rebooting• Diagnostic Interrupt assert Default: Stop rebooting and Power Off
Automatic Power On Delay	Specify the delay time for the power-on operation by automatic restart. A value ranging from 0 to 10 minutes can be specified. Default: 0

Item	Description
Cancel Boot Watchdog	<p>This cancels OS Boot Watchdog.</p> <p>If the Boot Watchdog is canceled in this window, the system does not initiate OS boot monitoring until [Enable] is set again for the Boot Watchdog in the [Watchdog] window of PSA.</p> <p>For details about the [Watchdog] window of PSA, see Section 7.15.1, "[Watchdog] window," in Part IV, "PSA."</p> <p>Remarks: OS boot monitoring is a PSA function. The monitoring starts when the Boot Watchdog timeout time is set in the PSA window. If the specified Boot Watchdog timeout time is too short, however, a timeout may occur before the system starts PSA, which can stop the Boot Watchdog timer. As a result, repeated reboots may occur. In such cases, PSA has not yet started, and the PSA page that provides the Boot Watchdog function cannot be displayed, so the Boot Watchdog cannot be displayed.</p> <p>Likewise, if any of the following operations is performed, PSA will not boot, resulting in any of the aforementioned problems:</p> <ul style="list-style-type: none"> • Booting from a CD-ROM disk • Booting the system in single-user mode • Backing up or restoring data by using SystemcastWizard <p>Provided as a measure against this problem, this check box disables the Boot Watchdog without using PSA.</p> <p style="text-align: right;">Default: Check box unchecked</p>

3.3.2.4 Boot control of partition

This section explains the boot control of a partition such as a boot device specification. The boot control of the partition can be set with administrator/operator authority only.

Partition boot procedure using MMB Web-UI

- 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
- 2 Select [Partition] → [Partition#x] → [Boot Control] from the MMB menu.
The [Boot Control] window is displayed.

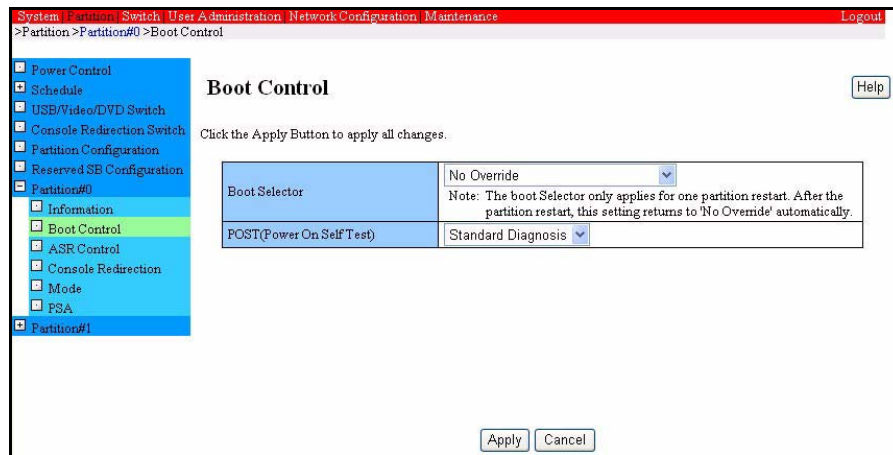


Figure 3.15 [Boot Control] window

3 Specify the boot setting.

Table 3.8 Displayed and setting items in the [Boot Control] window

Item	Description
Boot Selector	<ul style="list-style-type: none"> • No Overwrite: The EFI Boot Manager settings are used to boot the system. • Force boot into EFI Boot Manager: EFI Boot Manager is started, and it then waits for input. EFI Boot Manager can thereby be used to select a boot device and boot the system. • Force PXE: The EFI Boot Manager settings are overwritten, and PXE is forcibly executed. • Force boot from DVD: The EFI Boot Manager settings are overwritten, and a forced boot of the system from the DVD is attempted. <p>The default is [No Overwrite].</p>
Post (Power On Self Test)	<p>Select the type of Power On Self Test (POST) from the pulldown menu:</p> <ul style="list-style-type: none"> • Fast Boot: Fast boot with minimal diagnosis • Standard Diagnosis: Standard diagnosis • Full Diagnosis: Complete diagnosis with all diagnostic items <p>The default is [Standard Diagnosis].</p>

4 Click the [Apply] button.

3.3.3 Checking the partition power status

This section explains how to check the partition power status.

Checking the partition power status by using MMB Web-UI

- 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
- 2 Select [Partition] → [Partition#X] → [Information] from the MMB menu.
The [Information] window is displayed.

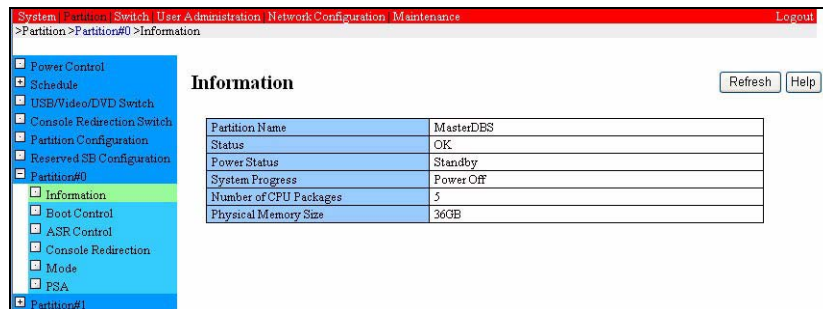


Figure 3.16 [Information] window

[Power Status] shows the power status of the specified partition.

Explanation of the [Information] window

Table 3.9 Displayed and setting items in the [Information] window

Item	Description
Partition Name	The name of the partition is displayed.
Status	<p>The partition status is displayed as follows:</p> <ul style="list-style-type: none"> • [OK]: The partition is operating normally. • [Degraded]: A component is faulty (the partition can operate by isolating the faulty component). • [Warning]: The partition is in the warning state (a failure will probably occur). • [Failed]: The partition failed.
Power Status	<p>The partition power status is displayed as follows:</p> <ul style="list-style-type: none"> • [On]: Power is on. • [Standby]: The partition is in the standby state.

Item	Description
System Progress	<p>Progress for the partition is displayed as follows:</p> <ul style="list-style-type: none"> • Power Off: Partition power is off. • Power On In Progress: The partition is in power-on sequence. • Reset: The partition is reset. • POST XXXXh: Indicates the partition has started POST Code=XXXXh processing. • Boot: The partition is in one of the following states: <ul style="list-style-type: none"> - The partition is being booted. - PSA is not installed. - Installation is in progress. - Backup or restoration using Systemcast Wizard is in progress. • OS Running: The OS is active. • OS Shutdown: The OS is shut down. • Panic: The system is in panic state. • Power Off In Progress: The partition is in power-off sequence. • Check Stop: The partition is stopped.
Number of CPU packages	<p>The number of CPU packages in the partition is displayed.</p> <p>Notes:</p> <p>The number includes no degraded CPU.</p>
Physical Memory Size	<p>The size of physical memory in the partition is displayed.</p> <p>Notes:</p> <p>This size differs from the size of memory that the OS can actually use.</p> <p>The size includes no degraded DIMM.</p>

3.4 Remote Shutdown

3.4.1 Remote shutdown of Windows

This section explains how to shut down the partition on which Windows Server 2003 is installed, from a remote management terminal.

The management terminal establishes a connection to the partition to shut it down. The following two connection modes can be used:

- [Remote shutdown via a LAN connection \(→ 3.4.1.1\)](#)
- [Remote shutdown via a COM port connection \(→ 3.4.1.2\)](#)

Basically, the remote shutdown is executed via a LAN. However, select the appropriate connection mode and shutdown method, depending on the operating environment of the partition.

Note:

If the following condition occurs, contact your Fujitsu certified service engineer.

A remote shutdown is executed, and the operation is not completed even after a long time has elapsed. Furthermore, an attempt to display the status of each component in the MMB Web-UI window causes "Read Error" to be displayed for [Part Number] or [Serial Number].

3.4.1.1 Remote shutdown via a LAN connection

The following four methods may be used to shut down the partition through its LAN port connection to the management terminal.

Table 3.10 Shutdown methods

	Management terminal OS	
	Windows OS	Linux/Unix OS
A) Shutdown.exe command	Y ^{*1}	N
B) Remote Desktop Connection	Y ^{*1}	N
C) Telnet connection	Y ^{*1}	Y

Y: Can be used N: Cannot be used

^{*1} The applicable Windows versions are limited. For details, see the respective shutdown method explanations.

Some of these methods require preparations or different operating conditions. Use the methods properly according to your operating environment.

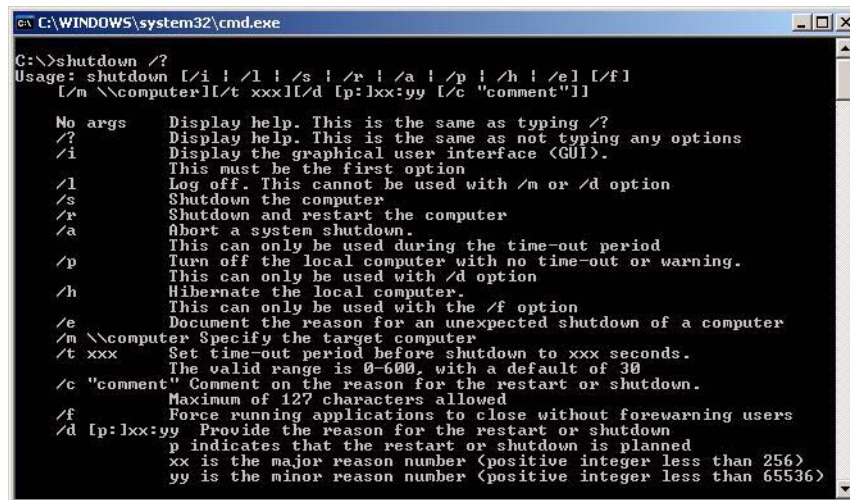
a) Shutdown with the Shutdown.exe command

The Shutdown.exe command is a standard command in Windows XP and Windows Server 2003. Entering this command in response to the command prompt on the management terminal can shut down the partition.

- Prerequisites:
 - The management terminal is connected to the partition via a LAN.
 - The management terminal OS is Windows XP or Windows Server 2003, both of which support shutdown.exe.
 - The management terminal has the same log-in account information, user name, and password as Windows partition. (example: user name: Administrator, password: primequest)
- Procedure:
 - Steps on the management terminal (Windows XP)
 - 1 Click [Start] button → [Programs] → [Accessory] → [Command Prompt] to start the command prompt.
 - 2 Enter the following command:

```
C: \>shutdown -s -m\\Servername
```

Specify the server name of the partition in *Servername*, and execute the Shutdown command.



```
C:\WINDOWS\system32\cmd.exe

C:\>shutdown /?
Usage: shutdown [/i ! /l ! /s ! /r ! /a ! /p ! /h ! /e] [/f]
[/m \\computer] [/t xxx] [/d [p:lx:yy] [/c "comment"]]

No args      Display help. This is the same as typing /?
/?           Display help. This is the same as not typing any options
/i           Display the graphical user interface (GUI).
             This must be the first option
/l           Log off. This cannot be used with /m or /d option
/s           Shutdown the computer
/r           Shutdown and restart the computer
/a           Abort a system shutdown.
             This can only be used during the time-out period
/p           Turn off the local computer with no time-out or warning.
             This can only be used with /d option
/h           Hibernate the local computer.
             This can only be used with the /f option
/e           Document the reason for an unexpected shutdown of a computer
/m \\computer Specify the target computer
/t xxx       Set time-out period before shutdown to xxx seconds.
             The valid range is 0-600, with a default of 30
/c "comment" Comment on the reason for the restart or shutdown.
             Maximum of 127 characters allowed
/f           Force running applications to close without forewarning users
/d [p:lx:yy] Provide the reason for the restart or shutdown
             p indicates that the restart or shutdown is planned
             xx is the major reason number (positive integer less than 256)
             yy is the minor reason number (positive integer less than 65536)
```

Figure 3.17 Execution of the Shutdown command

The command shown above has 30 seconds (default) specified in the -s option for the shutdown time. Both the restart and the shutdown times can be specified. For details on command operations, display Help as shown above.

Remarks:

The command can be used similarly under Windows Server 2003.

b) Shutdown through Remote Desktop Connection

Remote Desktop Connection is similar to Terminal Service Connection, which is usually used under Windows 2000 Server. The user can use this function from the management terminal to log in via the GUI base to the partition, on which Windows Server 2003 is installed, and implement different types of operations, including shutdown. Although Remote Desktop Connection is installed by default with Windows Server 2003, it is disabled by default. To use it, therefore, enable it after installation of the OS.

In addition, the management terminal requires a client application to establish a connection to Remote Desktop of Windows Server 2003. If the management terminal OS is Windows XP or Windows Server 2003, a connection client application has been installed by default. However, if another Windows OS is installed on the terminal, a connection client application must be installed after installation of the OS. A connection client application can be obtained free of charge from the Microsoft website. See the following URLs.

Reference URL:

- Remote Desktop Connection for Windows Server 2003 [5.2.3790] (connection client application)

<http://www.microsoft.com/windowsxp/downloads/tools/rdclientdl.msp>

- Enabling and configuring Remote Desktop for management under Windows Server 2003

<http://support.microsoft.com/default.aspx?scid=kb;ja;814590>

- Prerequisites:

- The management terminal is connected to the partition via a LAN.
- A Remote Desktop client application is installed on the management terminal.

Remarks:

If the remote management terminal OS is Windows XP or Windows Server 2003, a Remote Desktop client application has been installed by default on the management terminal.

- Procedure:

- Prepare the partition (Windows Server 2003) as follows (setup is required only once, in initial operation)

If you perform batch installation using the batch installer included in the High-reliability Tools, this procedure is unnecessary.

- 1 Click [Control Panel] button → [System].
- 2 Select the [Remote] tab, and check the [Enable Remote Desktop on this computer] check box.

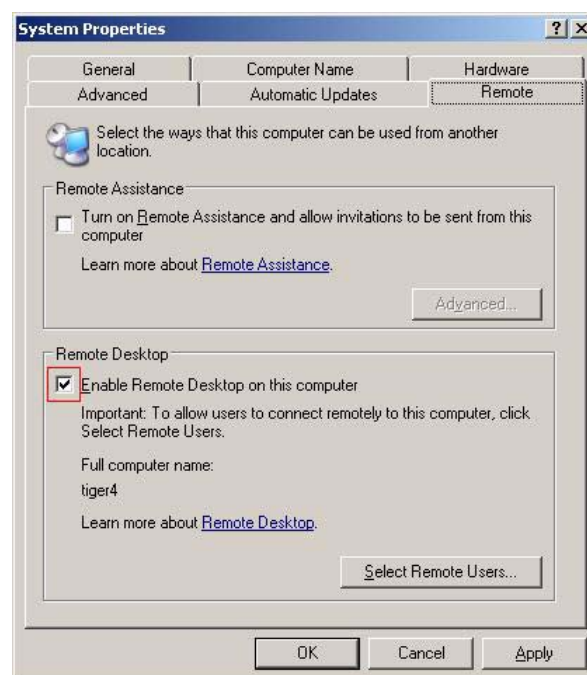


Figure 3.18 System Property sheet

Remarks:

Click the [Select Remote User] button to allow you, as required, to place a restriction regarding users who can remotely log in.

- 3 Click the [OK] button to enable Remote Desktop Connection.

Remarks:

If the firewall is enabled, select "Windows Firewall" and check and make the settings as follows:

- Select the [General] tab, and confirm that [Don't allow exceptions] is unchecked.
- Select the [Exceptions] tab, and check [Remote Desktop].

- Steps on the management terminal (Windows XP)

If the terminal uses a Windows version other than Windows XP, the method of starting the application may be different but the operating procedure is basically the same as the following:

- 1 Click [Start] button → [Programs] → [Accessories] → [Remote Desktop Connection].
- 2 Specify the computer name or IP address of the PRIMEQUEST-series machine in [Computer], and click the [Connect] button.



Figure 3.19 [Computer Name Setting] dialog box

- 3 The normal Windows login dialog box opens. Enter your user name and password to log in to the system.
- 4 As in the normal Windows shutdown procedure, click [Start] button → [Shutdown] to shut down the system.

c) Shutdown with Telnet

The user can use Telnet from the management terminal to log in via the CUI base to the partition and implement operations such as shutdown.

Although the telnet service is installed by default with Windows Server 2003, it is disabled by default. Therefore, set the telnet service to auto start so that the service is enabled every time Windows Server 2003 starts. The rest of this section explains how to enable the telnet service and how to log in from the management terminal.

- Prerequisites:
 - The management terminal is connected to the partition via a LAN.
 - A Telnet connection client application is installed on the management terminal (it is installed by default with Windows 98 and later versions, but the operating method may differ slightly depending on the version).
- Procedure:
 - Prepare the partition (Windows Server 2003) as follows:
 - 1 Click [Start] button → [Program] → [Management Tool] → [Service].
 - 2 Select telnet from the service list, and right-click it to display the Property sheet.

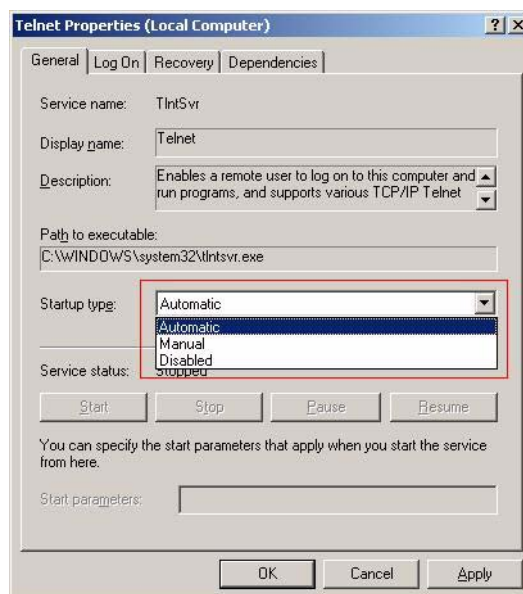


Figure 3.20 [Property] sheet

- 3 Select [Auto] from [Startup type].

Notes:

[Disable] is selected by default. Do not select [Manual] because the service must be started every time the server starts.

- 4 Click the [Start] button.

- Connection from the management terminal (Windows XP)

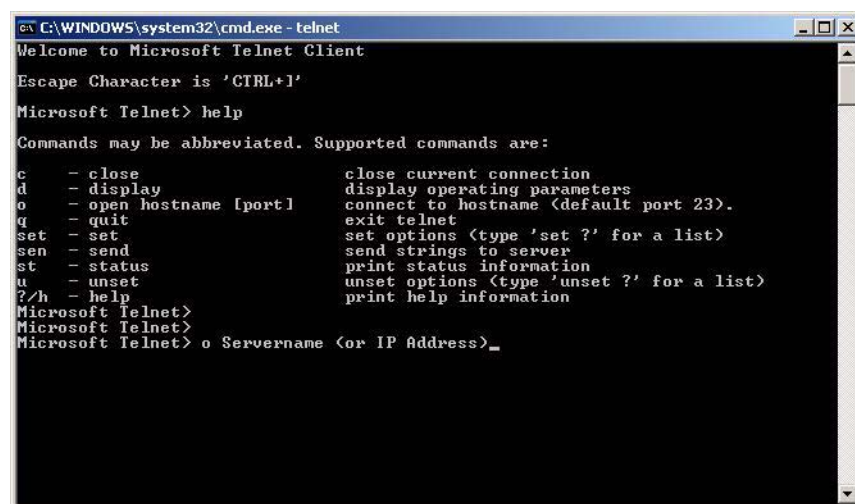
- 1 Click [Start] button → [Run], enter "telnet.exe", and click the [OK] button to start the service.

(Alternatively, start the command prompt, and enter "telnet.exe".)

- 2 Enter the following command to establish a connection:

```
Microsoft Telnet> o Servername (or IP Address)
```

Specify the server name or IP address of the partition in *Servername*, (at the bottom of the window).



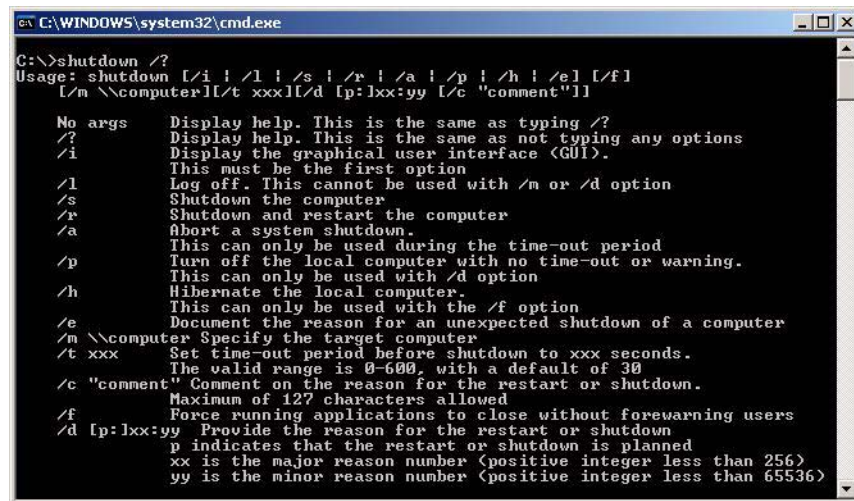
```
C:\WINDOWS\system32\cmd.exe - telnet
Welcome to Microsoft Telnet Client
Escape Character is 'CTRL+J'
Microsoft Telnet> help
Commands may be abbreviated. Supported commands are:
c - close          close current connection
d - display        display operating parameters
o - open hostname [port] connect to hostname (default port 23).
q - quit          exit telnet
set - set         set options (type 'set ?' for a list)
sen - send        send strings to server
st - status       print status information
u - unset        unset options (type 'unset ?' for a list)
?/h - help       print help information
Microsoft Telnet>
Microsoft Telnet>
Microsoft Telnet> o Servername (or IP Address)_
```

Figure 3.21 Example of entering the server name or IP address

For details on Telnet operation, display Help as shown above.

- 3 When a connection has been successfully established, enter your login ID and password to log in.
- 4 Enter the Shutdown.exe command as follows to shut down the partition:

```
C: \>shutdown -s
```



```

C:\WINDOWS\system32\cmd.exe
C:\>shutdown /?
Usage: shutdown [/i ! /l ! /s ! /r ! /a ! /p ! /h ! /e] [/f]
        [/m \\computer] [/t xxx] [/d [p: lxx:yy] [/c "comment"]

No args    Display help. This is the same as typing /?
/?         Display help. This is the same as not typing any options
/i         Display the graphical user interface (GUI).
           This must be the first option
/l         Log off. This cannot be used with /m or /d option
/s         Shutdown the computer
/r         Shutdown and restart the computer
/a         Abort a system shutdown.
           This can only be used during the time-out period
/p         Turn off the local computer with no time-out or warning.
           This can only be used with /d option
/h         Hibernate the local computer.
           This can only be used with the /f option
/e         Document the reason for an unexpected shutdown of a computer
/m \\computer Specify the target computer
/t xxx     Set time-out period before shutdown to xxx seconds.
           The valid range is 0-600, with a default of 30
/c "comment" Comment on the reason for the restart or shutdown.
           Maximum of 127 characters allowed
/f         Force running applications to close without forewarning users
/d [p: lxx:yy] Provide the reason for the restart or shutdown
           p indicates that the restart or shutdown is planned
           xx is the major reason number (positive integer less than 256)
           yy is the minor reason number (positive integer less than 65536)
  
```

Figure 3.22 Shutdown.exe command

The command shown above causes a shutdown in 30 seconds. Shutdown/restart or the shutdown/restart time can be specified. For details on command operations, display Help as shown above.

3.4.1.2 Remote shutdown via a COM port connection

In special cases where the partition cannot be connected to the local area via a LAN, shutdown can be implemented by connecting the partition to the management terminal, using a serial cable via the COM port, to enable redirection to the management terminal console.

- Shutdown via an Emergency Management Service (EMS) connection

Shutdown via an EMS connection

EMS is a new Windows function added to Windows Server 2003. EMS connects the partition to the management terminal via the COM port to implement specific kinds of operations, such as shutting down the partition.

To use EMS, it must be enabled on the partition. It can be enabled during or after installation. This section explains how to enable it after installation. For details on how to enable it during installation, search Help in Windows Server 2003 for the explanation on how to enable EMS.

- Prerequisites:
 - The partition is connected with a serial cable to the management terminal via the COM port.
 - There is no conflict between COM port that connects the partition to management terminal and another port used by the system.
 - * Connect the COM cable to the COM port of the IO Unit

- Procedure:
 - Prepare the partition (Windows Server 2003) as follows:
 - 1 Before enabling the EMS function, decide the boot entry(*1) in which EMS is to be enabled. (Boot entries can be listed by entering Bootcfg.exe at the command prompt.)
 - 2 Start the command prompt, and execute Bootcfg.exe to set EMS to ON.

```

C:\WINDOWS\system32\cmd.exe
C:\>bootcfg /EMS /?
BOOTCFG /EMS value /ID bootid
Description:
    Allows an administrator to add or remove the EMS headless
    redirection settings.
Parameter List:
    /EMS    value    The valid set of values for EMS
                  redirection are ON, OFF.
    /ID     bootid    Specifies the boot entry id to add
                  the OS options to.
    /?      Displays this help message.
Examples:
    BOOTCFG /EMS ON /ID 2
    BOOTCFG /EMS OFF /ID 3
C:\>
C:\>
C:\>bootcfg /EMS ON /ID 2
  
```

Figure 3.23 Bootcfg.exe

The command shown above enables the EMS function in boot entry ID 2.

- *1 For details on editing boot entries, display Help for Bootcfg.exe.
Alternatively, the EFI Shell in the boot entry selection window can similarly be used for editing. For details, see Using EFI Shell at the following URL:

Related URL:
 ● Using EFI Shell
<http://www.intel.com/software/products/college/efishell/>

- Steps on the management terminal (Windows Server 2003) (*1)
 - 1 Click [Start] button → [Programs] → [Accessories] → [Communication], and start HyperTerminal.
Remarks:
HyperTerminal must be installed separately.
 - 2 Enter an arbitrary name for the connection name, and select an icon.

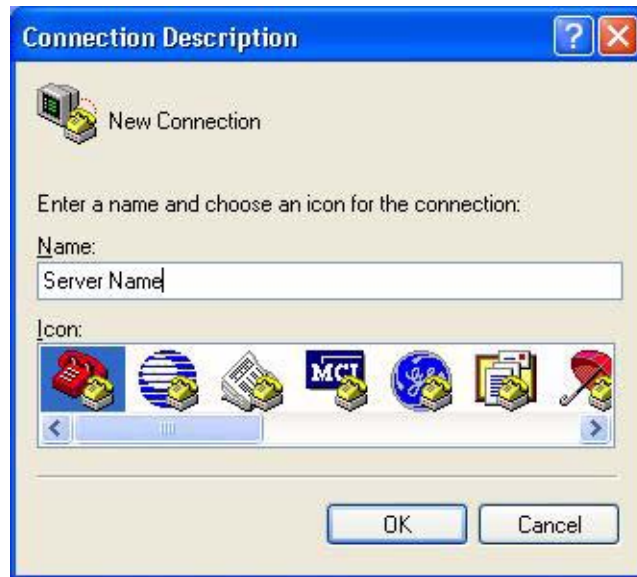


Figure 3.24 Selecting an icon

- 3 Select the COM port, and set the baud rate.
 - Specify the COM port to which the serial cable is connected (in the red rectangular field in the left figure below).
 - Set the baud rate (in the red rectangular field in the right figure below).

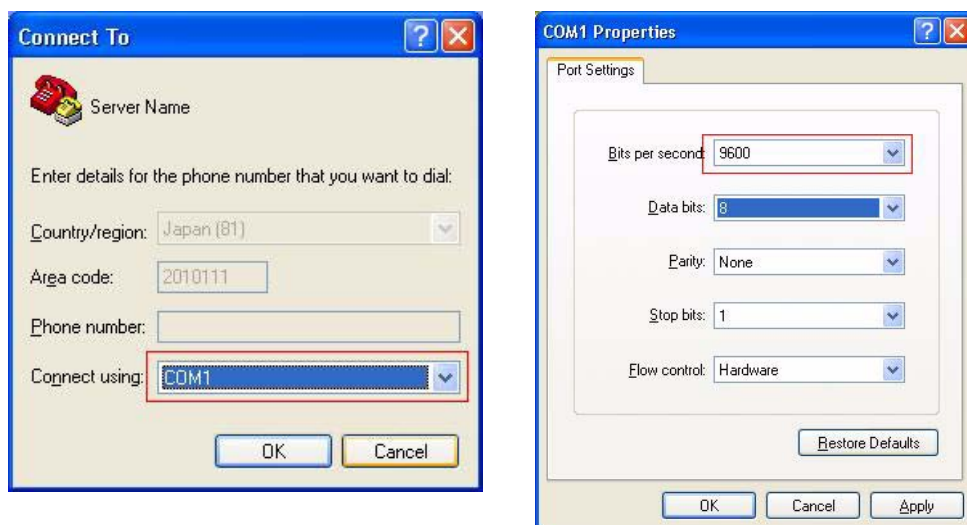


Figure 3.25 Selecting the COM port and setting the baud rate

Note:

- Set the communication speed to 19200 bits per second.
 - Preset values for the port settings depend on the environment.
- 4 When step 3 is completed, turn on the PRIMEQUEST-series machine, and select the boot entry in which EMS is ON to boot the system.
 - 5 Control passes to HyperTerminal, and the SAC (*2) commands can be used on the Special Administration Console. To shut down the PRIMEQUEST-series machine, enter the Shutdown command.
- *1 Although steps in this procedure use HyperTerminal in Windows Server 2003, the same steps can also be performed in cases with a standard terminal connection. However, because HyperTerminal does not support UTF-8, the Japanese language is not correctly displayed. It is recommended that the other terminal software products that support UTF-8 be used.
- *2 For details about the Special Administration Console and SAC commands, see Help in Windows Server 2003.

3.5 Checking Status with LEDs

The PRIMEQUEST-series machine uses LEDs to indicate information on power-on, power-off, failures, and the physical locations of components. Detailed status information on each component can be checked in the management window.

Note that all Alarm LEDs are turned on when AC power is turned on. This does not indicate any failure.

Each component is equipped with the following LEDs:

- Power LED (Green)

This LED indicates the component power status or that hot swapping of the component is in progress. A hot-swappable component can be removed while the LED is off.

- Alarm LED (Orange)

This LED indicates whether the component is faulty.

- Location LED (Blue)

This LED indicates the mounting location of the component. The LED is equipped with display functions to assist hot swapping, and the user can set each function to ON or OFF.

Remarks:

See the *PRIMEQUEST 580A/540A/580/540/480/440 System Design Guide* or *PRIMEQUEST 520A/520/420 System Design Guide* for details on the meanings of the LED status display. Also, see Chapter 2, "Physical Locations of Components" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN) for details on the physical installation location of each component, and Chapter 10, "Status Confirmation from LED" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN) for details on checking the LED status on the system.

3.6 UPS Operation

This section explains as follows connections of an uninterruptible power supply unit (UPS) for a means of power-off:

- [UPS connections](#) (→ 3.6.1)
- [Settings for UPS connections](#) (→ 3.6.2)

3.6.1 UPS connections

The PRIMEQUEST 580A/540A/580/540/480/440 each have ports on the clock and PCI box control board (CPCB) as interfaces for external UPSs. The PRIMEQUEST 520A/520/420 each have these ports at the right on the rear of the unit. Two ports are provided to support dual power feed.

The PRIMEQUEST-series machine supports dual power feed as an option. When connecting a UPS to use this option, connect the UPS to the respective power supply system.

- Single power feed

Connect a UPS to the UPC0 connector on the main unit of the PRIMEQUEST-series machine.

- Dual power feed
 - PRIMEQUEST 580A/540A/580/540/480/440

Connect two UPSs to the UPC0 and UPC1 connectors on the main unit (CPCB) of the PRIMEQUEST-series machine.

The UPS connected to the UPC0 connector functions as a 0-system UPS, and the one connected to the UPC1 connector functions as a 1-system UPS. In other words, the UPS connected to the UPC0 connector on the main unit of the PRIMEQUEST-series machine must be connected to the ACS on the main unit, using an AC cable. The one connected to the UPC1 connector must be connected to the ACS on the extended power supply cabinet, using an AC cable.

The following figure shows the concept of UPS connections.

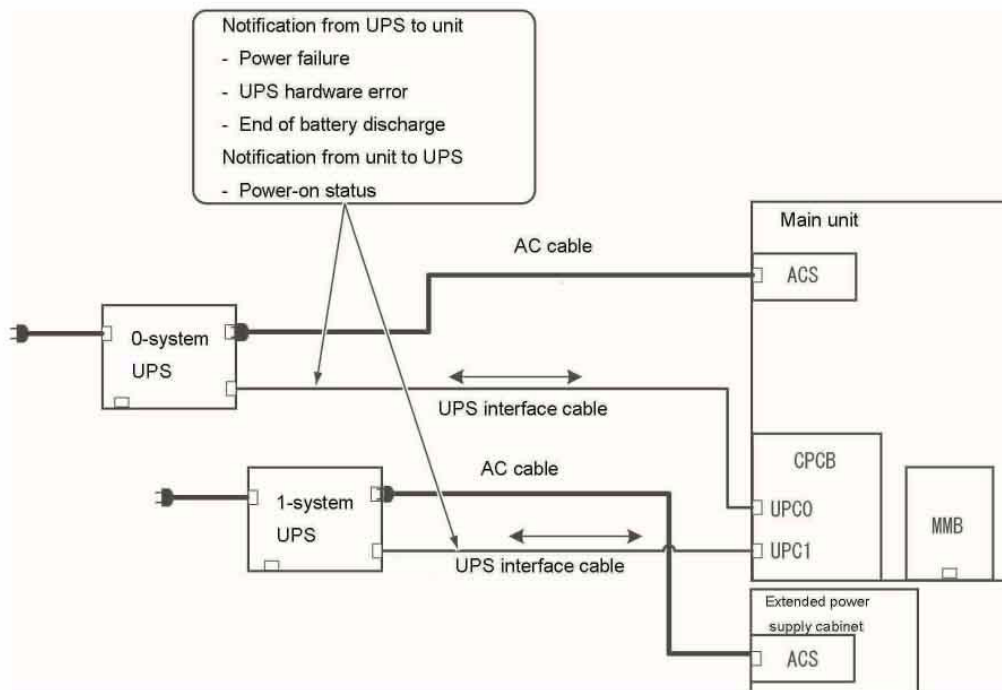


Figure 3.26 Concept of UPS connections
(PRIMEQUEST 580A/540A/580/540/480/440)

- PRIMEQUEST 520A/520/420

Two UPSs are connected to the UPC0 and UPC1 connectors on the main unit of the PRIMEQUEST-series machine.

The UPS connected to the UPC0 connector works as the 0-system UPS, and the one connected to the UPC1 connector works as the 1-system UPS. In other words, the UPS connected to the UPC0 connector on the main unit of the PRIMEQUEST-series machine must be connected with an AC cable to the 0-system AC connector on the main unit of the PRIMEQUEST-series machine. The one connected to the UPC1 connector must be connected with an AC cable to the 1-system AC connector on the main unit of the PRIMEQUEST-series machine.

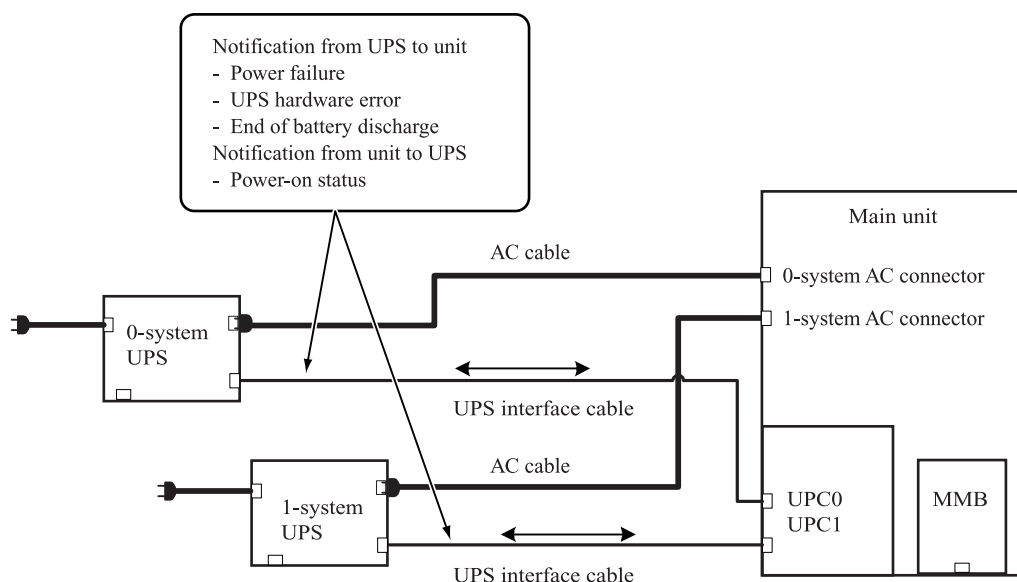


Figure 3.27 Concept of UPS connections (PRIMEQUEST 520A/520/420)

Remarks: For details on the UPS connections, see the *PRIMEQUEST 580A/540A/580/540/480/440 Installation Planning Manual* (C122-H001EN) or the *PRIMEQUEST 520A/520/420 Installation Planning Manual* (C122-H002EN).

3.6.2 Settings for UPS connections

This section explains how to make settings for UPS connections.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Procedure

- 1 Log in to MMB Web-UI.
The MMB Web-UI window is displayed.
- 2 Select [System] → [System Setup] from the MMB menu.
The [System Setup] window is displayed.

System Partition Switch User Administration Network Configuration Maintenance Logout

>System >System Setup

System Status

System Event Log

System Information

Firmware Information

System Setup

System Power Control

LEDs

Power Supply

Fans

Temperature

SB

IOU

System Interconnect

Other Boards

MMB

GSWB

PCI_Box

System Setup

Click the Apply Button to apply all changes.

Power Feed Mode	<input checked="" type="radio"/> Single <input type="radio"/> Dual
Power Restoration Policy	Always ON - chassis always powers up after AC is restored. Always OFF - chassis remains powered off after AC is restored. Restore - power is returned to the state that was in effect before AC was removed or lost. <div>Always OFF</div>
Power Fault Reaction	Continue - continue running the system Shutdown - shutdown the system. <div>Shutdown</div>
Shutdown Delay after UPS detected AC Failure	<div>5</div> sec.
Power Linkage Mode	<input checked="" type="checkbox"/> When all partition(s) are shutdown, automatically power off the chassis.
Altitude	<div>Altitude <= 1500m</div>
Mirror Mode (current status)	Enabled
Mirror Mode (setting)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable Note: Mirror Mode change requires a chassis power off/on.

Apply

Cancel

Figure 3.28 [System Setup] window

- 3 Enter data in [Shutdown Delay after UPS detects AC Failure], and click the [Apply] button.

Explanation of the [System Setup] window

Table 3.11 Displayed and setting items in the [System Setup] window

Item	Description
Power Feed Mode	Specify the power feed mode (single power feed or dual power feed) of the PRIMEQUEST system: <ul style="list-style-type: none"> • [Single] (single power feed mode) • [Dual] (dual power feed mode) Remarks: This operation is performed by a Fujitsu certified service engineer. Default: [Single]
Power Restoration Policy	Specify the power operation performed after power recovery following power outage: <ul style="list-style-type: none"> • [Always off]: Keep the power off after power recovery. • [Always on]: Turn the power on after power recovery, regardless of whether it was on or off at the time of power outage. • [Restore]: Restore the power state in effect at the time of power outage. In other words, if the power was on at that time, turn the power on again, and if the power was off, keep the power off. Default: [Restore]
Power Fault Reaction	Specify the action to be performed if redundancy is lost (or the system displays the action): <ul style="list-style-type: none"> • continue: Continue server operation even if redundancy is lost. • shutdown: Shut down the system if redundancy is lost. Default: [continue]
Shutdown Delay after UPS detected AC Failure	Specify the delay between UPS detection of power outage and OS shutdown start. If AC recovery is completed within this delay time, the OS shutdown is not performed. Specify a number ranging from 0 to 9999 seconds. Default: 5 s
Power Linkage Mode (PRIMEQUEST 580A/540A/580/540/480/440 only)	Check this check box to turn off the power to the cabinet and GSWB when all partitions are shut down. If this box is not checked, the power to the cabinet and GSWB is left on when all partitions are shut down. Default: Check box ON

Item	Description
Altitude	<p>Specify in units of 100 meters the altitude at which the PRIMEQUEST system is to be installed.</p> <ul style="list-style-type: none"> Altitude \leq 1500 m 1500 m $<$ Altitude \leq 2000 m 2000 m $<$ Altitude \leq 2500 m 2500 m $<$ Altitude <p style="text-align: right;">Default: Altitude \leq 1500 m</p> <p>Remarks: Setting an altitude enables precise detection of abnormal intake temperatures.</p>
Mirror Mode (Current Status)	<p>Displays the status of the Mirror Mode currently applied to the system.</p> <ul style="list-style-type: none"> Enabled: The system operates in the Mirror Mode. Disabled: The system does not operate in the Mirror Mode. <p style="text-align: right;">Default: Enabled</p>
Mirror Mode (Setting)	<p>Set Mirror Mode as the system to Enable or Disable.</p> <ul style="list-style-type: none"> Enable Disable <p>To enable changes to this setting, shut down all the partitions. This setting is not reflected on the system until all the partitions are shut down.</p> <p style="text-align: right;">Default: Enabled (Mirror Mode)</p>

Part II PRIMEQUEST Functions

CHAPTER 4 Overview of PRIMEQUEST Functions

4.1 List of the Functions

Since the MMB performs integrated management for PSA and the GSWB in the PRIMEQUEST-series machine, the user can operate the PRIMEQUEST-series machine via the MMB Web-UI from a general-purpose PC connected to the management LAN without using a special console.

The MMB Web-UI provides the system administrator and user with functions for operating the PRIMEQUEST-series machine. This section describes the functions provided by the Web-UI of the PRIMEQUEST-series machine.

System

Table 4.1 Functions provided by MMB Web-UI (system)

Function	Reference
Displays the status of the entire system.	5.2.1, "[System Status] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.2.2, "[System Status] window (PRIMEQUEST 520A/520/420)"
Displays events that are saved in the SEL (System Event Log) of the MMB.	5.2.3, "[System Event Log] window"
<ul style="list-style-type: none">Displays information on the PRIMEQUEST system.Set a name for the PRIMEQUEST system (cabinet)Set asset tag.	5.2.4, "[System Information] window"
Displays a firmware version.	5.2.5, "[Firmware Information] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.2.6, "[Firmware Information] window (PRIMEQUEST 520A/520/420)"
Sets a system setup.	5.2.7, "[System Setup] window"
Performs power control.	5.2.8, "[System Power Control] window"

Function	Reference
Displays LED status.	5.2.9, "[LEDs] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.2.10, "[LEDs] window (PRIMEQUEST 520A/520/420)"
<ul style="list-style-type: none"> Displays the status of system internal power supply unit. Displays reaction to a power supply unit failure. 	5.2.11, "[Power Supply] window"
<ul style="list-style-type: none"> Displays the status of system internal fan. Displays reaction to a fan failure. 	5.2.12, "[Fans] window"
<ul style="list-style-type: none"> Displays the temperature of system internal temperature sensor Displays reaction to an abnormal temperature. 	5.2.13, "[Temperature] window"
Displays and sets the status of SB#x board.	5.2.14, "SB menu"
Displays and sets the status of IOU#x board.	5.2.15, "IO Unit menu (PRIMEQUEST 580A/540A/580/540/480/440)" 5.2.16, "IO Unit menu (PRIMEQUEST 520A/520/420)"
Displays and sets the status of IOX board.	5.2.16.2, "[IOX] window (PRIMEQUEST 520A/520/420)"
Displays the status of XAI#x boards.	5.2.17.1, "[XAI#x] window (PRIMEQUEST 580A/540A/580/540/480/440)"
Displays the status of BP.	5.2.18.1, "[BP] window (PRIMEQUEST 520A/520/420)"
Displays the status of IOBP board.	5.2.18.6, "[IOBP] window (PRIMEQUEST 520A/520/420)"
Displays the status of CPCB board.	5.2.18.2, "[CPCB] window (PRIMEQUEST 580A/540A/580/540/480/440)"
Displays the status of KVM.	5.2.18.3, "[KVM] window (PRIMEQUEST 580A/540A/580/540/480/440)"
Displays the status of operator panel board.	5.2.18.7, "[OP-Panel] window (PRIMEQUEST 580A/540A/580/540/480/440)"
Displays the status of FAN.	5.2.18.5, "[FANBP] window (PRIMEQUEST 520A/520/420)"
Displays the status of PDB.	5.2.18.9, "[PDB] window (PRIMEQUEST 580A/540A/580/540/480/440)"

Function	Reference
Displays MMB related information.	5.2.19, "MMB menu (PRIMEQUEST 580A/540A/580/540/480/440)" 5.2.20, "MMB menu (PRIMEQUEST 520A/520/420)"
Displays the status of GTHB.	5.2.21, "GTHB menu (PRIMEQUEST 580A/540A/580/540)"
Displays the status of GSWB.	5.2.22, "GSWB menu (PRIMEQUEST 580A/540A/580/540/480/440)"
Displays the status of PCI_Box connected to the system.	5.2.23, "PCI_Box menu"

Partition

Table 4.2 Functions provided by MMB Web-UI (partition)

Function	Reference
Performs partition power control.	5.3.1, "[Power Control] window"
Specifies whether each partition is put in scheduled operation.	5.3.2.1, "[Schedule Control] window"
Sets the power-on/off schedule for each partition.	5.3.2.2, "[Schedule List] window"
Specifies which partition a USB port, video device, and DVD connected to KVM are connected to.	5.3.3, "[USB/Video/DVD Switch] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.3.4, "[DVD Switch] window (PRIMEQUEST 520A/520/420)"
Sets the serial output destination of each partition.	5.3.5, "[Console Redirection Switch] window"
Sets the SB, IOU, and IOX that comprise a partition.	5.3.6, "[Partition Configuration] window"
Sets the Home IOU.	5.3.6.3, "[Partition Home] window"
Adds the SB, IOU, and IOX to the partition.	5.3.6.1, "[Add SB/IOU to Partition] window"
Removes the SB, IOU, or IOX from the partition.	5.3.6.2, "[Remove SB/IOU from Partition] window"
Splits or merges SBs.	5.3.7.1, "[SB Split] window"
Splits or merges IO Units or an IOX.	5.3.7.2, "[IOU Split] window"
Specifies the partition to which a free SB or an SB already defined as a standby partition is to be allocated.	5.3.8, "[Reserved SB Configuration] window"
Displays partition status and partition related information.	5.3.9.1, "[Information] window"
Controls partition boot.	5.3.9.2, "[Boot Control] window"
Sets conditions for executing partition automatic reboot.	5.3.9.3, "[ASR (Automatic Server Restart) Control] window"
Displays partition console output.	5.3.9.4, "[Console Redirection] window"
Set various modes for a partition.	5.3.9.5, "[Mode] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.3.9.6, "[Mode] window (PRIMEQUEST 520A/520/420)"
Displays an outline of partition and OS information.	7.2, "[Partition Information] Window"
Lists CPU information.	7.3, "[CPUs] Window"
Lists memory information.	7.4, "[DIMMs] Window"

Function	Reference
Displays information on the PCI devices connected to each partition.	7.5, "[PCI Devices] Window"
Displays the network status in the partition.	7.6.1, "[Network Interfaces] window"
Displays the routing status in the partition.	7.6.2, "[Network Routing] window"
Displays disk partition information.	7.7, "[Disk Partitions] Window"
List hard disk information	7.8, "[Hard Disks] Window"
<ul style="list-style-type: none"> • Lists process information • Transmits signals to the specified process. 	7.9, "[Process List] Window"
Displays the contents of major system files.	7.10, "[System File] (Selection) Window"
Lists the partition hardware components (SB, IOU, CPU, DIMM, PCI device).	7.11.1, "[Hardware Inventory] window"
<ul style="list-style-type: none"> • Displays OS versions, displays a listing of RPM packages with detail information • Downloads RPM package list information to the terminal. 	7.11.2, "[Software Inventory] window"
Logs various PSA actions (log output, REMCS transmission, SNMPtrap transmission etc.)	7.12, "[Agent Log] Window"
Downloads the SEL files held by the partition.	7.13, "[SEL] Window"
<ul style="list-style-type: none"> • Saves the current configuration and status in the partition to a file on the partition. • Downloads an export file to the terminal. 	7.14, "[Export List] Window"
Makes settings for Software Watchdog and Boot Watchdog.	7.15.1, "[Watchdog] window"
Specifies whether to enable the hard disk's S.M.A.R.T function for monitoring and detect predictive signs of failure.	7.15.2, "[S.M.A.R.T.] window"
Displays information on the expansion file unit connected to a partition.	7.16, "[Expansion File Unit] Window"

Dynamic Partitioning (DP) function

Table 4.3 Functions provided by the MMB Web-UI (DP function)

Function	Reference
Adds or replaces an SB to a partition in which the OS is running.	5.3.9.5, "[Mode] window (PRIMEQUEST 580A/540A/580/540/480/440)"

User

Table 4.4 Functions provided by MMB Web-UI (user)

Function	Reference
Displays, edits, and deletes a list of registered user accounts.	5.4.1, "[User List] window"
Information on currently registered user accounts is displayed.	5.4.2, "[Change Password] window"
Displays a user who is connected to MMB Web-UI.	5.4.3, "[Who] window"

Network/Security

Table 4.5 Functions provided by MMB Web-UI (network/security)

Function	Reference
Sets the MMB date and time.	5.5.1, "[Date/Time] window"
Sets an IP address for accessing the MMB.	5.5.2, "[Network Interface] window"
Sets an MMB-HUB port VLAN	5.5.3, "[Management LAN Port Configuration] window"
Makes settings related to MMB network protocol.	5.5.5, "[Network Protocols] window"
Sets an HTTP/HTTPS screen-refresh rate.	5.5.6, "[Refresh Rate] window"
Sets SNMP community.	5.5.7, "SNMP Configuration menu"
Sets a destination to send an SNMP trap.	5.5.7.2, "[SNMP Trap] window"
Sets an SNMP v3 specific engine ID and user.	5.5.7.3, "[SNMP v3 Configuration] window"
Creates a private key and then creates a CSR (signature request) for it.	5.5.8.1, "[Create CSR] window"
Exports a private or CSR (signature request) key stored on the MMB.	5.5.8.2, "[Export Key/CSR] window"
Imports to the MMB an electronic certificate with a signature sent from the certification authority.	5.5.8.3, "[Import Certificate] window"
Creates a self-signed certificate.	5.5.8.4, "[Create Selfsigned Certificate] window"
Creates an SSH server private key.	5.5.9.1, "[Create SSH Server Key] window"

Function	Reference
Sets a user required to control the MMB from a remote terminal with RMCP.	5.5.10, "[Remote Server Management] window"
Sets IP filtering to enable connection.	5.5.11, "[Access Control] window"
Sets notification by e-mail for an event occurrence in the system.	5.5.12, "[Alarm E-Mail] window"
Registers a license to enable System Mirror.	5.5.13.1, "[Mirror License] window"
Registers a license for splitting SBs, IO Units, and an IOX.	5.5.13.2, "[XPAR License] window"
Registers a license to upgrade from 16-way to 32-way.	5.5.13.3, "[32CPU License] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.5.13.4, "[32way-Upgrade License] window (PRIMEQUEST 480/440)"

Maintenance

Table 4.6 Functions provided by MMB Web-UI (maintenance)

Function	Reference
Updates MMB firmware. (*1)	5.6.1.1, "[MMB Firmware Update] window (PRIMEQUEST 580A/540A/580/540/480/440)" 5.6.1.2, "[MMB Firmware Update] window (PRIMEQUEST 520A/520/420)"
Updates GSWB firmware. (*1)	5.6.1.3, "[GSWB Firmware Update] window (PRIMEQUEST 580A/540A/580/540/480/440)"
Updates PAL and SAL. (*1)	5.6.1.4, "[PAL/SAL Firmware Update] window"
Updates EFI. (*1)	5.6.1.5, "[EFI Firmware Update] window"
Updates BMC firmware. (*1)	5.6.1.6, "[BMC Firmware Update] window"
Backs up and restores MMB configuration information.	5.6.2.1, "[Backup/Restore MMB Configuration] window"
Backs up EFI configuration information.	5.6.2.2, "[Backup EFI Configuration] window"
Restores EFI configuration information.	5.6.2.3, "[Restore EFI Configuration] window"
Maintenance in wizard format	5.6.3, "[Maintenance Wizard] window"
Specifies settings for the Remote Customer Support System (REMCS) service.	5.6.4, "REMCS menu"

*1: This function is used by Fujitsu certified engineer.

4.2 MMB functions

Figure 4.1 shows the PRIMEQUEST main functions. The "MMB" part at left of the figure shows the MMB main functions.

This section explains each function of the MMB.

Remarks: The GSWB can be mounted only in the PRIMEQUEST 580A/540A/580/540/480/440 servers.

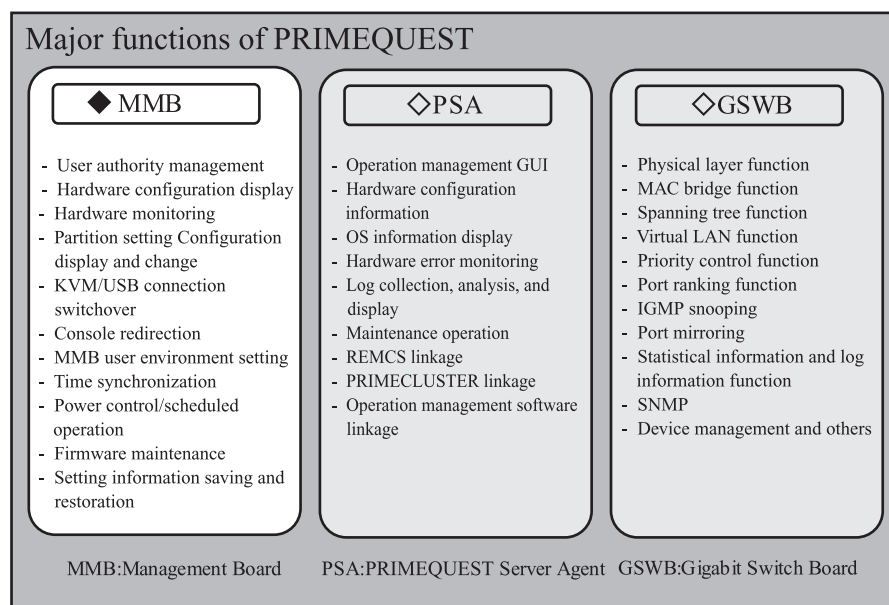


Figure 4.1 MMB main functions

User authority management

The user authorities for accessing the MMB are classified into "User," "CE," "Operator," and "Administrator," where a system account such as a user name and authority needs to have been registered. An operator can use functions that correspond to his or her authority. See [Section 2.7, "User Privilege Levels"](#) for details.

Hardware configuration display

This function displays the hardware configurations and status.

The function displays the configurations of all components such as SBs and IO Units and of CPU, memory, and HDD units in each component, including fans and power system units mounted on PRIMEQUEST series machines.

The configuration information also displays the status of each component. This status information includes, for example, the indication of normal and abnormal states. The display of some of these states may require corrective action on the part of the system administrator and the maintenance engineer. Detailed information can be displayed by following a link in the display item column.

A partition-unit configuration can also be displayed. The detailed configuration and status of SBs and IOs that are allocated to each partition are displayed.

Hardware monitoring

This function monitors the system for hardware failures and abnormalities.

Hardware failures and abnormalities are detected with a variety of checkup features and sensors. When a failure or abnormality is detected, the required corrective action is taken according to such hardware configuration conditions as the detection location, Mirror Mode, and redundant configuration. The system collects all logs including those for cases where processing can be resumed by replacing or disconnecting the pertinent hardware components and logs error messages.

An LED will go on depending on the extent of the failure or abnormality. The error is posted by e-mail if there is a setting for this type of posting. The indication destinations include a system administrator, the operation management application, and the REMCS center.

All logs and messages can be displayed with a filter to reduce the size of the display. The conditions under which abnormal states are to be detected can also be set.

Partition setting and configuration display

These functions include the function for setting partitions and the function for displaying partition configurations. Partition setting divides the installed hardware resources to determine control and management units.

The partition setting is made by specifying a combination of an SB, IO Unit, and IOX. The partition configuration display displays the built-in SB, IO Unit, and IOX and displays in detail their components. To make changes to the partition, change the combination of the SB, IO Unit, and IOX by following the same procedure as that for setting partitions.

VGA/USB/DVD connection switchover

This function switches the connection destination of component KVM for connecting a keyboard, mouse, video device, and DVD drive.

The connection destination is an optional partition. This setting can be made from the MMB Web-UI. To set the switchover of the KVM switch of the MMB Web-UI, this function allows the user to connect a USB keyboard/mouse, video output, and USB DVD-ROM drive separately to any partition.

Remarks: In PRIMEQUEST 520A/520/420 machines, only the function for switching the DVD-ROM drive is implemented.

Console redirection

This function switches the input-output destination of the console information of each partition over to the management LAN. The two methods below are available for implementing OS input-output for each partition. Either method can be used to independently set OS input-output for each partition.

- Using the built-in IO Unit or IOX COM port for each partition
- Using the management LAN that is connected via the MMB

To simultaneously access more than one partition, Fujitsu recommends using the COM port.

To redirect to the management LAN, the terminal connected to it can be used as a console.

Setting of MMB user environment

This function sets and changes the MMB user environment.

- Unification of system accounts
The MMB and GSWB have interfaces such as a Telnet and Web-UI whose system account is collectively managed by the MMB. GSWB user certification is also performed by the MMB.
- User management
This function manages user authorities for accessing the MMB.
- Network environment setting and change
This function sets the MMB user environments such as a HTTP and Telnet. The setting and change of job LAN network environments are made from the navigation bar switch on the setting and change screens.
- Access control
To maintain security, this function sets an IP filter to enable MMB access (to set a usable IP address for each protocol). Only set IP addresses enable MMB access.
- SSL support
This function encrypts Web and Telnet access with SSL (Secure Sockets Layer). It creates a private key and an electronic certificate.

Time synchronization

This function sets inter-partition time.

By using the NTP server and NTP client functions, the partition time can be synchronized with the MMB time. By accessing the over NTP server, the partition time can also be synchronized with the NTP server time.

Power control/scheduled operation

This function sets a schedule for turning on and off the power to each partition and automatically controlling the operation according to such schedule.

Firmware maintenance

This function updates a variety of firmware. The update operation is performed by a certified service engineer. The following firmware is subject to updating.

- MMB firmware (mounted on the MMB)
- GSWB firmware (mounted on the GSWB) (PRIMEQUEST 580A/540A/580/540/480/440 only)
- BMC firmware (installed in each partition)
- PAL/SAL/EFI firmware (installed in each partition)

Saving and restoring setting information

These functions save and restore the PAL/SAL/EFI setting information in each partition and the MMB setting information.

The PAL/SAL/EFI must be set in each partition. However, because it takes a long time to set the information separately from the PAL/SAL/EFI SETUP window, the MMB provides a function for setting and restoring the PAL/SAL/EFI setting information for each partition.

These functions can be used to do the following:

- After the PAL/SAL/EFI is set from the EFI SETUP window in one partition, the PAL/SAL/EFI setting information of that partition can be saved and applied to other partitions.
- If a problem occurs with an SB and the SB is replaced, the system can be recovered from the saved PAL/SAL/EFI setting information.
- The configuration information saved in a partition can be restored or copied to another partition.

The saved information can be stored on a remote terminal. The data saved to the remote terminal can also be restored.

In addition to the function for the BIOS configuration information, a save/restore function for the MMB and GSWB (PRIMEQUEST 580A/540A/580/540/480/440 only) configuration information is also provided.

4.3 Partition Configuration Settings and Changes

The partition setting is made by specifying a combination of an SB and IO Unit. To make changes to the partition, change the combination of the SB and IO Unit by following the same procedure as that for setting partitions.

Partitioning function

This function logically divides all hardware resources in one cabinet into more than one system and operates an independent system in the divided unit. The number of partitions that can be divided depends on the model.

- PRIMEQUEST 580A/580: Up to 8 partitions (with XPAR set: Up to 16 partitions)
- PRIMEQUEST 540A/540: Up to 4 partitions (with XPAR set: Up to 8 partitions)
- PRIMEQUEST 520A/520: Up to 2 partitions (with XPAR set: Up to 4 partitions)
- PRIMEQUEST 480: Up to 8 partitions
- PRIMEQUEST 440: Up to 4 partitions
- PRIMEQUEST 420: Up to 2 partitions

The partitioning function can be used to construct more than one task in the same cabinet, enabling flexible system construction.

Each partition is protected so that it is not affected by other partitions. Even if an error occurs in a partition, the error does not affect any other partitions.

Partition-specific resource extension

In PRIMEQUEST, resources can be distributed more efficiently by using a floating I/O feature that provides greater flexibility in implementing SB-IOU (IOX) connection, and by using the partitioning function. Minimizing the system setup also makes it possible to add the required hardware resources more efficiently when a capability upgrade is required.

Operation on different platforms

The partitioning function makes it possible to include the current and next-generation processors in one cabinet. A different OS for each partition in the same cabinet and systems with different OS versions can be used together.

These features make it possible to implement flexible development and capability upgrades for more effective utilization of hardware assets.

Flexible I/O feature

The flexible I/O feature provides greater flexibility in SB-IOU (IOX) connection. If this feature is not used, CPUs, memory, and I/O resources are permanently connected, with the result that some resources may be left unused.

Using the flexible I/O feature and partitioning function makes it possible to distribute CPUs, memory, and I/O resources according to the operation type, and to flexibly set and change system setups.

If an SB fails, using the flexible I/O feature and a reserved SB makes it possible to recover the system by reboot only, significantly reducing the MTTR (Mean Time To Repair).

The MTTR is the mean time required to recover a failed computer to normal operating status. This is the time during which the computer is not operating owing to failure or execution of repair. Therefore, the smaller the MTTR value, the more easily maintenance and repair will be conducted.

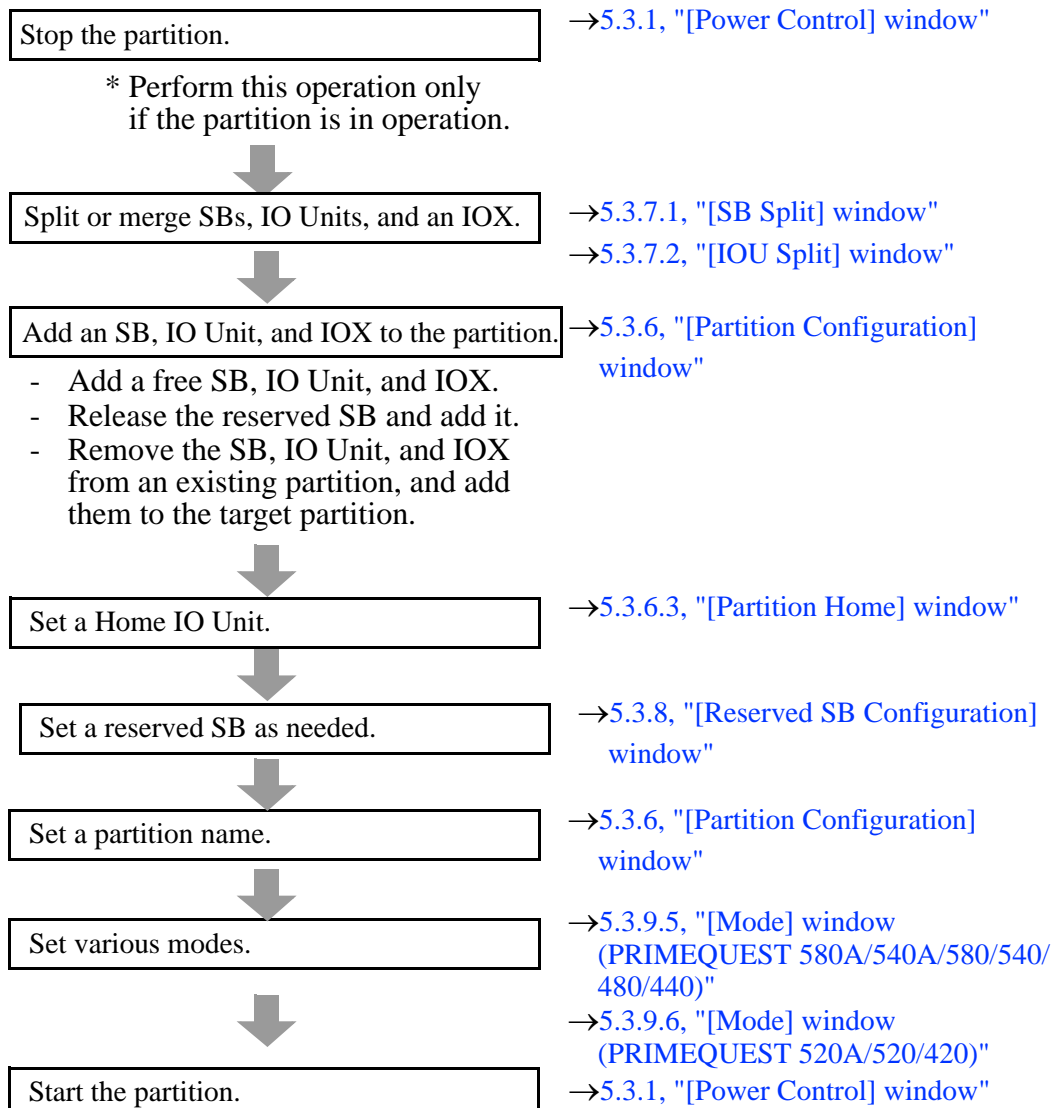
4.4 Partition Configuration Procedure

Follow the procedure below to create a partition. Repeat the procedure for the number of partitions required. To change the settings of an existing partition, execute only the necessary steps in the following procedure.

Here, the window displayed for the PRIMEQUEST 580A/540A/580/540/480/440 is described as an example.

Remarks:

- If the partition configuration is changed during partition operation, be sure to restart the partition.
- Before making a setting for a partition, perform the work described in [Section 4.4.2, "Enabling the Extended Mirror Modes,"](#) and [Section 4.4.3, "Enabling XPAR \(PRIMEQUEST 500A/500 series\),"](#) to enable those functions.



4.4.1 Displaying partition information and configurations

This section describes how to display the status of settings of existing partitions.

4.4.1.1 Displaying partition information

Procedure

- 1 Click [Partition] → [Partition#x] → [Information].
The [Information] window is displayed.

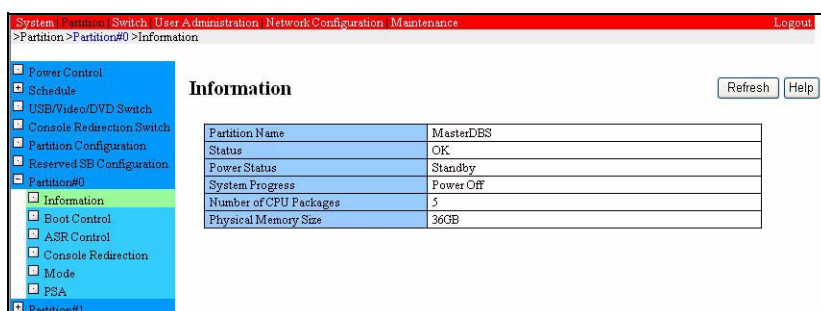


Figure 4.2 [Information] window

4.4.1.2 Checking partition configurations

The partition configuration display can include built-in SBs and IO Units and their components.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Procedure

- 1 Click [Partition] → [Partition Configuration].
The [Partition Configuration] window is displayed.

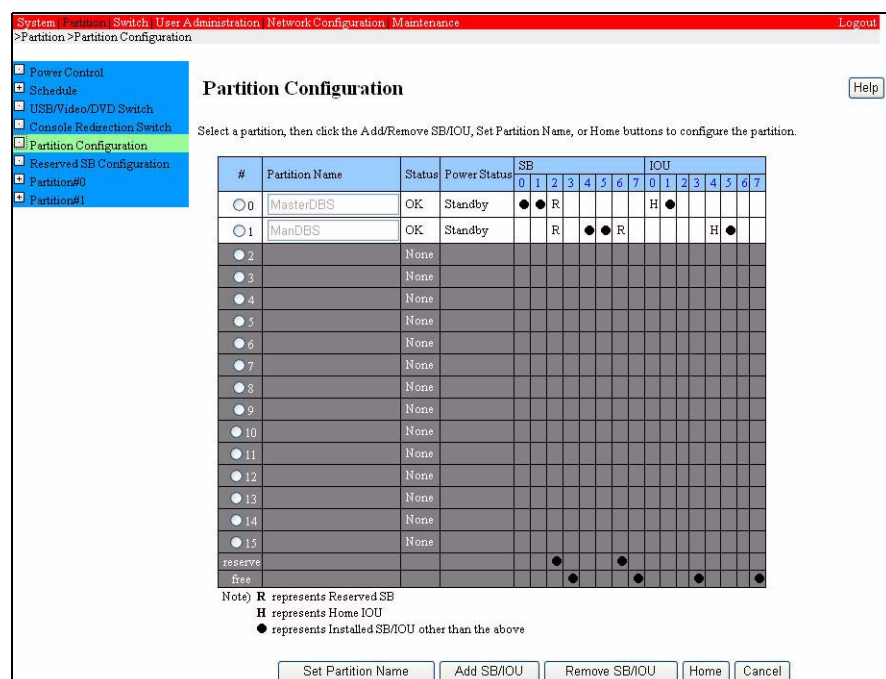


Figure 4.3 [Partition Configuration] window

4.4.2 Enabling the Extended Mirror Modes

For partition operation in Extended Mirror Mode, a system mirror option must be procured and license data must be registered.

The system mirror option may already be installed at the time of shipment from the factory. If so, this procedure is not required. For details on settings, contact a Fujitsu certified service engineer.

- 1 Insert the CD-ROM disk supplied with the system mirror option into the CD-ROM drive of the MMB console.
- 2 Click [Network Configuration] → [License] → [Mirror License].
The [Mirror License] window is displayed.

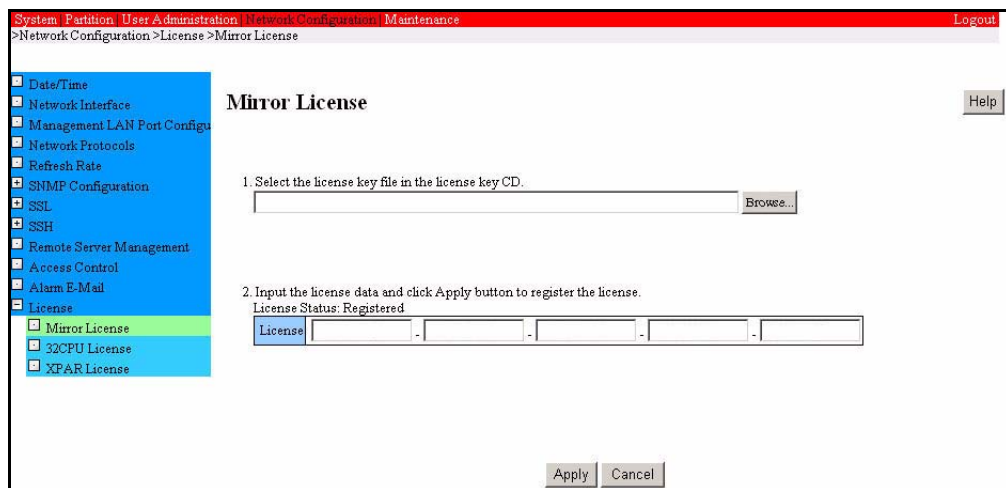


Figure 4.4 [Mirror License] window

Table 4.7 Displayed and setting items in the [Mirror License] window

Item	Description
Select the license key file in the license key CD	This field is used to select the license key file to enable the license.
License Status	This field displays the current license status. <ul style="list-style-type: none"> Not registered: The license has not been registered. Alternatively, the license data (entered) for registration is not appropriate. Registered: The license is correctly registered.
License	This field is used to enter license data.

- 3 Click the [Browse] button, and select the license key file in the file selection window.
- 4 Enter the license data that is on the sheet supplied with the system mirror option into the [License] boxes, and click the [Apply] button.
Each partition then becomes ready to support Extended Mirror Mode.

Remarks: For details on how to set Extended Mirror Mode, see [Section 4.4.10](#), "Setting various modes."

4.4.3 Enabling XPAR (PRIMEQUEST 500A/500 series)

For operation of split SBs, IO Units, and an IOX installed in partitions, an XPAR option must be procured and license data must be registered.

The XPAR option may already be installed at the time of shipment from the factory. If so, this procedure is not required.

For details on its settings, contact a Fujitsu certified service engineer.

- 1 Insert the CD-ROM disk supplied with the XPAR option into the CD-ROM drive of the MMB console.
- 2 Click [Network Configuration] → [License] → [XPAR License].
The [XPAR License] window is displayed.

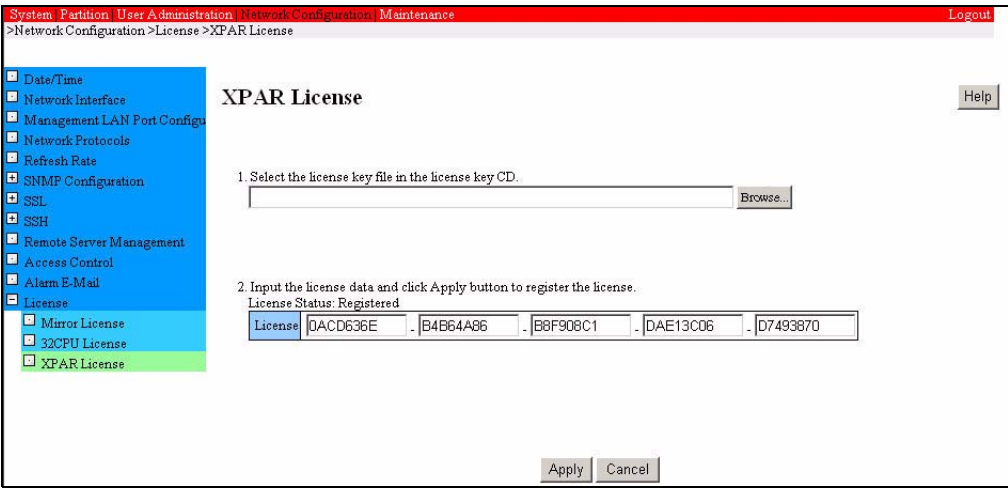


Figure 4.5 [XPAR License] window

Table 4.8 Displayed and setting items in the [XPAR License] window

Item	Description
Select the license key file in the license key CD	This field is used to select the license key file to enable the license.
License Status	This field displays the current license status. <ul style="list-style-type: none">• Not registered: The license has not been registered. Alternatively, the license data (entered) for registration is not appropriate.• Registered: The license is correctly registered.
License	This field is used to enter license data.

- 3 Click the [Browse] button, and select the license key file in the file selection window.
- 4 Enter the license data that is on the sheet supplied with the XPAR option into the [License] boxes, and click the [Apply] button.
Each partition then becomes ready to be set with XPAR.

Remarks: For details on setting XPAR, see [Section 4.4.5, "Splitting or merging SBs, IO Units, and an IOX \(only for the PRIMEQUEST 500A/500 series\)."](#)

Note: The XPAR option is procured separately from the PRIMEQUEST main unit.

4.4.4 Stopping a partition

This section explains how to stop a partition in operation.

Procedure

- 1 Click [Partition] → [Power Control].

The [Power Control] window is displayed.

Remarks: The "Under Maintenance" item in the [Power Control] window may not be displayed on the PRIMEQUEST 500A/500-series machine, depending on the MMB firmware version. If it is not displayed, the number of the partition under maintenance is displayed beneath "Under Maintenance" in the information area.

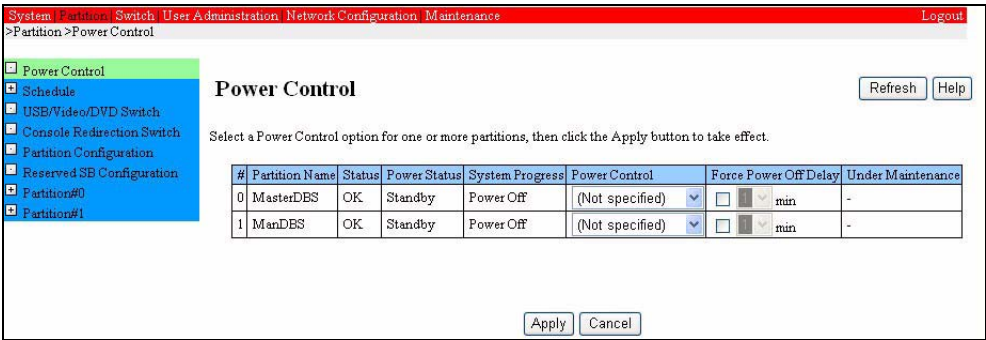


Figure 4.6 [Power Control] window

- 2 In the [Power Control] window, select [Power off] for the target partition, and click the [Apply] button.

Note: A partition in which Windows is installed may not be shut down when the shutdown function is executed from the MMB Web-UI. To turn off power to the partition, use the Windows shutdown function. For details on the Windows shutdown function, see the Windows OS manual or [Section 3.4, "Remote Shutdown."](#)

Table 4.9 Displayed and setting items in the [Power Control] window

Item	Description
Power Control	<p>Select a power control setting for each partition.</p> <p>The [Power On] selection is not displayed for a powered-on partition. Conversely, the [Power Off], [Reset], [INIT], [Power Cycle], and [Force Power Off] selections are not displayed for a powered-off partition.</p> <ul style="list-style-type: none"> • Power On: Powers on a partition. • Power Off: Powers off a partition. • Power Cycle: Forcibly powers off a partition and powers it on again. • Reset: Resets a partition. • INIT: Generates an INIT interrupt in a partition. • Force Power Off: Forcibly powers off a partition. • Not specified: Issues no instruction to a partition. <p>Note:</p> <p>Executing INIT forcibly terminates applications running in the partition. Before executing INIT, stop important applications. Also, unmount unnecessary file systems.</p>

4.4.5 Splitting or merging SBs, IO Units, and an IOX (only for the PRIMEQUEST 500A/500 series)

Each SB, IO Unit or IOX can be split into two portions in the PRIMEQUEST 500A/500 series with the XPAR option, so a system can be configured flexibly.

This section explains how to split or merge SBs, IO Units, and an IOX.

Notes:

- If the XPAR license has not been registered, the [Split Configuration] menu, [SB Split] window, [IOU Split] window are not displayed.
- Extended Mirror Mode cannot be set in partitions containing SBs, IO Units or an IOX split with XPAR set. No split SB, IO Unit, or IOX can be assigned to a partition that is set in Extended Mirror Mode.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- XPAR is supported only in the PRIMEQUEST 500A/500 series, and the XPAR option is required for setting XPAR.

Splitting and merging can only be set for the SBs, IO Units, and IOX that are in free status. To split or merge the SBs, IO Units, or IOX that have been built into a partition, you must first remove these units from the partition before splitting or merging them.

4.4.5.1 Splitting or merging an SB

This section explains how to split or merge an SB. You can only split free SBs.

Note: If the XPAR license has not been registered, the [SB Split] window is not displayed.

- 1 Click [Partition] → [Split Configuration] → [SB Split].
The [SB Split] window is then displayed.

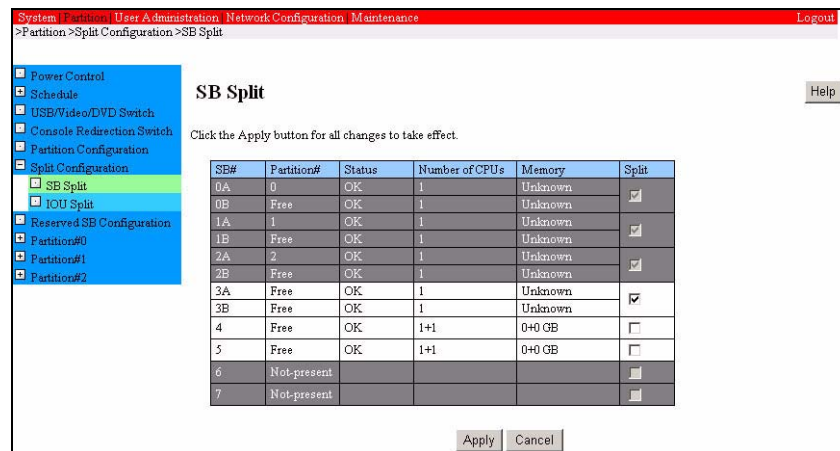


Figure 4.7 [SB Split] window

Table 4.10 Displayed and setting items in the [SB Split] window

Item	Description
SB#	Displays the number used to identify each SB. When an SB is split, xA and xB are displayed to identify the split portions of the SB.
Partition#	Displays the partition number or free status of the SB.
Status	Displays the status of the SB.
Number of CPUs	Displays the number of CPUs mounted on the SB.
Memory	Displays the size of memory mounted on the SB.
Split	Specifies whether to split the SB.

- To split an SB:
 - 2 Check the [Split] check box for the SB to be split and click the [Apply] button.
The SB is then split and displayed in the window as being split into xA and xB.
- To merge a split SB:
 - 2 Uncheck the [Split] check box for the SB to be merged and click the [Apply] button.
The SB is then merged and displayed in the window as a merged SB.

4.4.5.2 Splitting or merging an IO Unit or IOX

This section explains how to split or merge an IO Unit or IOX. You can only split free IO Units and an IOX.

Note: If the XPAR license has not been registered, the [IOU Split] window is not displayed.

- 1 Click [Partition] → [Split Configuration] → [IOU Split].
The [IOU Split] window is then displayed.

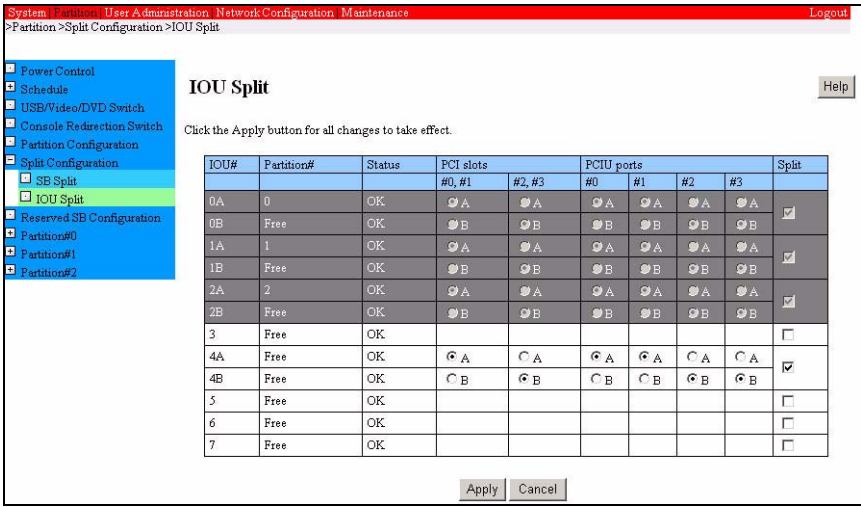


Figure 4.8 [IOU Split] window (PRIMEQUEST 580A/540A/580/540)

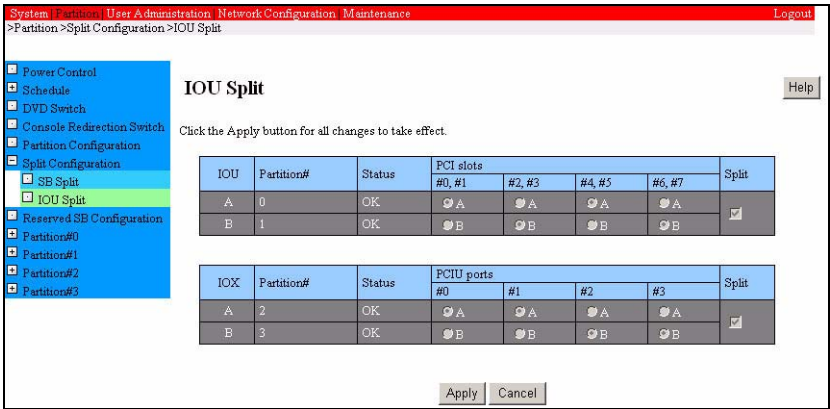


Figure 4.9 [IOU Split] window (PRIMEQUEST 520A/520)

Table 4.11 Displayed and setting items in the [IOU Split] window

Item	Description
SB#	Displays the number used to identify each IO Unit. When an IO Unit is split, xA and xB are displayed to identify the split portions of the IO Unit.
IOX PRIMEQUEST 520A/520 only)	Displays the number used to identify each IOX. When an IOX is split, xA and xB are displayed to identify the split portions of the IOX.
Partition#	Displays the partition number or free status of the IO Unit and IOX.
Status	Displays the status of the IO Unit and IOX.
PCI slots	Specifies the portion (A or B) of the split IO Unit to which each PCI slot belongs.
PCIU ports	Specifies the portion (A or B) of the split IO Unit and IOX to which each PCIU port belongs.
Split	Specifies whether to split the IO Unit and IOX.

- To split an IO Unit or IOX:
 - 1 Turn on the [Split] check box for the IO Unit or IOX to be split.
 - 2 Click the [Apply] button.
 - 3 The IO Unit or IOX is split into xA and xB and displayed in the window.
 - 4 Specify the split portion (A or B) of the IO Unit to which each PCI slot or PCIU port is made to belong by selecting the corresponding radio button (A or B) in the [PCI slots] and [PCIU ports] columns.
 - 5 Click the [Apply] button.
The IO Unit or IOX is then split and displayed in the window as IO Unit being split into xA and xB.
- To merge a split IO Unit or IOX:
 - 1 Uncheck the [Split] check box for the IO Unit or IOX to be merged, and click the [Apply] button.
The split IO Unit or IOX is then merged and displayed in the window as a merged IO Unit or IOX.

4.4.6 Configuring a partition

This section explains how to add and remove an SB and IO Unit.

- [Adding an SB, IO Unit, and IOX](#) (→ 4.4.6.1)
- [SB/IO/IOX Unit removal](#) (→ 4.4.6.2)

4.4.6.1 Adding an SB, IO Unit, and IOX

You can add an SB, IO Unit, and IOX to a partition.

Notes:

- Extended Mirror Mode cannot be set in partitions containing SBs, IO Units or an IOX split with XPAR set. No split SB, IO Unit, or IOX can be assigned to a partition that is set in Extended Mirror Mode.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- XPAR is supported only in the PRIMEQUEST 500A/500 series, and the XPAR option is required for setting XPAR.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- You can add an SB, IO Unit, and IOX to a partition even while the OS of the partition is operating. In such cases, reboot the partition to validate the changed configuration.

Procedure

- 1 Click [Partition] → [Configuration].
The [Partition Configuration] window is displayed.

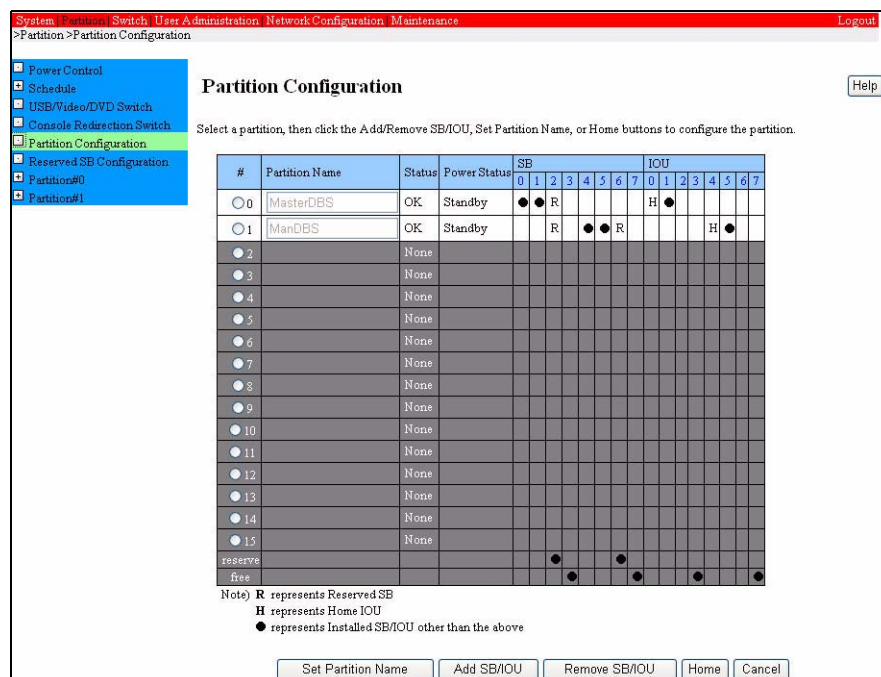


Figure 4.10 [Partition Configuration] window

- 2 Click the radio button of the number of the partition in which an SB, IO Unit, or IOX is to be added.
- 3 Click the [Add SB/IOU] button.
The [Add SB/IOU to Partition] window appears. The window lists the free SBs, IO Units, and an IOX.

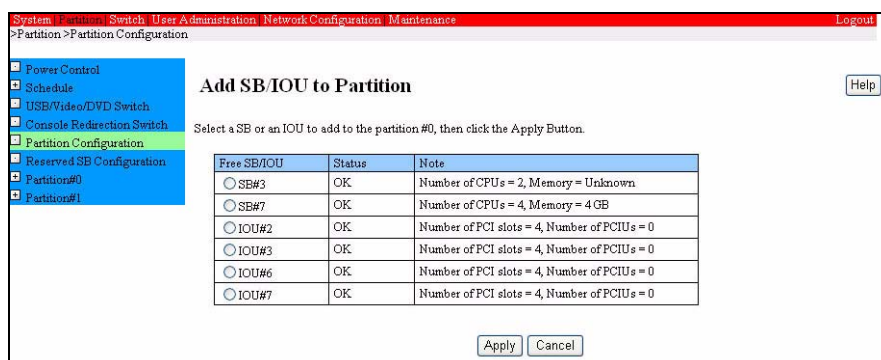


Figure 4.11 [Add SB/IOU to Partition] window

- 4 Click the radio button of the SB, IO Unit, or IOX that is to be added to the partition. You can select only one SB, IO Unit, or IOX at a time.
- 5 Click the [Apply] button.
A confirmation dialog box appears.

6 Click the [OK] button.

The selected SB, IO Unit, or IOX is added to the partition.

Repeat steps 2 to 6 until all the necessary SBs, IO Units, and IOX are added.

Explanation of Partition Configuration window

See [Section 4.4.1.2](#) for details on viewing the Explanation of the [Partition Configuration] window and its items.

Explanation of Add SB/IOU to Partition window

Table 4.12 Displayed and setting items in the [Add SB/IOU to Partition] window

Item	Description
Free SB/IOU	Displays free SBs, IO Units, and IOX (belonging to no partition).
Status	Displays the status of free SBs, IO Units, and IOX.
Note	For SB <ul style="list-style-type: none">• [Number of CPUs]: Displays the number of CPUs installed on the SB.• [Memory]: Displays the size of memory installed on the SB.
Note	For IO Unit and IOX (PRIMEQUEST 520A/520/420) <ul style="list-style-type: none">• [Number of PCI slots]: Displays the number of PCI slots on the IO Unit.• [Number of PCIUs]: Displays the number of PCI units connected to the IO Unit or IOX.• [Number of PEXU]: Displays the number of PCI Express units connected to the IO Unit or IOX.

4.4.6.2 SB/IO/IOX Unit removal

This function removes an SB, IO Unit, or IOX from a partition.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- You cannot remove an SB, IO Unit, or IOX from a partition while the OS of the partition is operating. In such cases, set the partition power to the standby state, and then remove the SB, IO Unit, or IOX.

Procedure

- 1 Click [Partition] → [Partition Configuration].
The [Partition Configuration] is displayed.

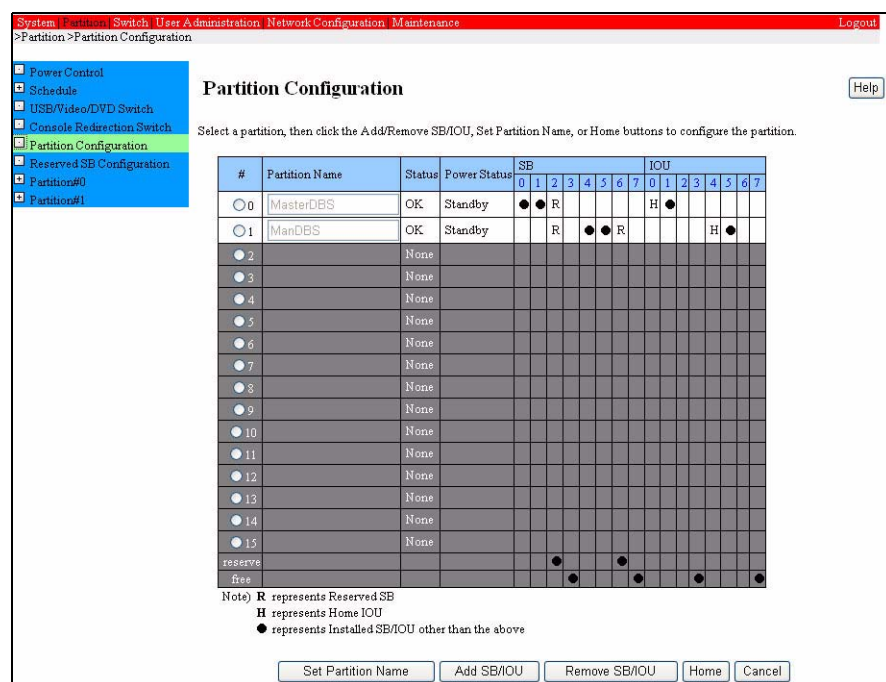


Figure 4.12 [Partition Configuration] window

- 2 Click the radio button corresponding to the number of a partition whose SB, IO Unit or IOX is to be removed.

- 3 Click the [Remove SB/IOU] button.

The [Remove SB/IOU from Partition] window appears. The window lists the SBs, IO Units, and IOX that are contained in the partition selected in Step 2.

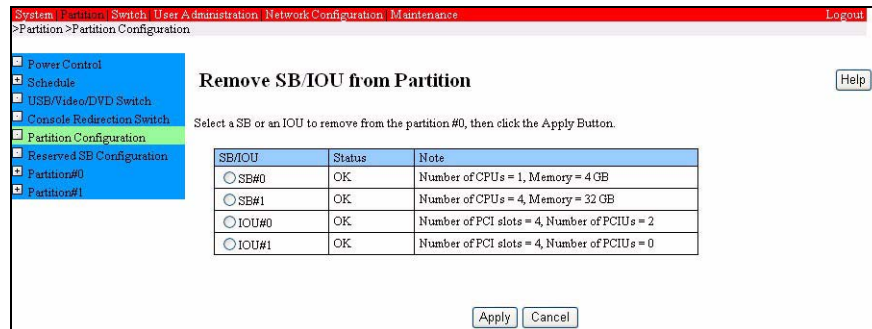


Figure 4.13 [Remove SB/IOU from Partition] window

- 4 Click the radio button of the SB, IO Unit, or IOX to be removed from the partition.
Only one SB, IO Unit, or IOX can be removed at a time.
- 5 Click the [Apply] button.
A confirmation dialog box is displayed.
- 6 Click the [OK] button.
The selected SB, IO Unit, or IOX is removed from the partition and becomes free.

Explanation of [Partition Configuration] window

See [Section 4.4.1.2, "Checking partition configurations"](#) for details on using the [Partition Configuration] window and for details of the window items.

Explanation of [Remove SB/IOU from Partition] window

Table 4.13 Displayed and setting items in the [Remove SB/IOU from Partition] window

Item	Description
SB/IOU	Displays an SB, IO Unit, and IOX included in a partition.
Status	Displays SB, IO Unit, and IOX status.
Note	<p>For SB</p> <ul style="list-style-type: none"> • [Number of CPUs]: Displays the number of CPUs installed on the SB. • [Memory]: Displays the size of memory installed on the SB. <p>For IO Unit and IOX (PRIMEQUEST 520A/520/420)</p> <ul style="list-style-type: none"> • [Number of PCI slots]: Displays the number of IO Unit PCI slots. • [Number of PCIUs]: Displays the number of PCI units connected to the IO Unit or IOX. • [Number of PEXU]: Displays the number of PCI Express units connected to the IO Unit or IOX.

4.4.7 Setting Home IO Unit

Define one of the IO Units and IOX connected to the partition as the home IO Unit.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

- 1 Click [Partition] → [Partition Configuration].
The [Partition Configuration] window is displayed.

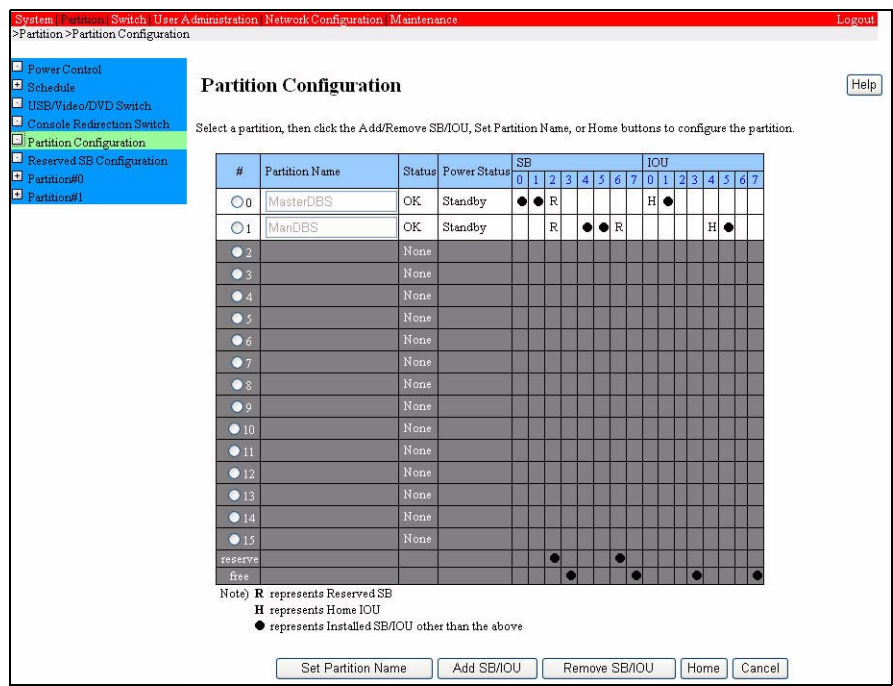


Figure 4.14 [Partition Configuration] window

- 2 Click the [Home] button.
The [Partition Home] window is displayed.

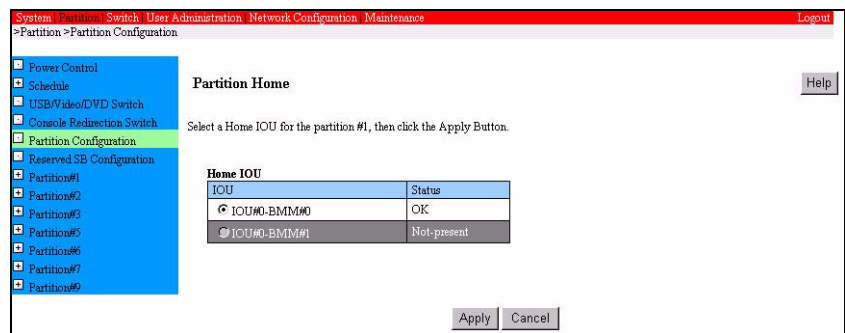


Figure 4.15 [Partition Home] window

- 3 Click the radio button of an IO Unit or IOX to be made home.

- 4 Click the [Apply] button.

The specified IO Unit or IOX is defined as the home of the partition and "H" is displayed in the corresponding IOU or IOX column in the [Partition Configuration] window.

Explanation of [Partition Home] window

Table 4.14 Displayed and setting items in the [Partition Home] window

Item	Description
<Home IOU>	
IOU	Displays an IO Unit and IOX that contain BMMs and are included in a partition.
Status	Displays IO Unit and IOX status.

4.4.8 Setting a reserved SB

A reserved SB is prepared for a partition with consideration given to the operation states. If an SB included in the partition fails and must be disconnected, the reserved SB is newly added to the partition to replace the disconnected SB.

You can define a free SB as a reserved SB but also define an SB, which is already defined as a reserved SB for one partition, for another.

You can also define a split SB as a reserved SB for a partition.

Notes:

- If an SB failure causes the reboot of a partition, a switch is made to the reserved SB indicated as the Reserved SB in the partition.
If a failure occurs in one of the components (such as memory) in a duplicated component configuration in Extended Mirror Mode and the other component continues operating without interruption, switching to a reserved SB is not made.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- The recommended reserved SB defined for a partition is one that has the same memory and CPU configurations as those of SBs configured in the partition. If the number of CPUs increases during switching to the specified reserved SB, additional licenses are required.
- CPUs of the same type as those on the SBs composing the partition must be mounted on the reserved SB. If the SB has a different type of CPU mounted on it, it cannot be defined as a reserved SB.
- An SB with 32 GB of memory mounted (8-GB DIMM x 4) cannot be mixed in the same partition with an SB having another memory configuration.
Therefore, an SB with 32 GB of memory mounted (8-GB DIMM x 4) cannot be set as a reserved SB in a partition consisting of SBs having another memory configuration.
- An SB with 16 GB of memory mounted (4-GB DIMM x 4) cannot be mixed in the same partition with an SB having another memory configuration.
Therefore, an SB with 16 GB of memory mounted (4-GB DIMM x 4) cannot be set as a reserved SB in a partition consisting of SBs having another memory configuration.
- When started for the first time after a switch to a reserved SB in a partition on which Windows Server 2003 is installed, the system prompts for a restart of the partition. As soon as the message is displayed, restart the partition as instructed.

- Remarks:

- ## Procedure

- System | Partition Switch | User Administration | Network Configuration | Maintenance | Logout

>Partition>Reserved SB Configuration

Power Control
Schedule
USB/Video/DVD Switch
Console Redirection Switch
Partition Configuration
Reserved SB Configuration
Partition#0
Partition#1

Reserved SB Configuration

Click the check boxes of the partitions to register the Reserved SB, then click the Apply button.

#	Partition Name	Status	Power Status	SB							
				0	1	2	3	4	5	6	7
0	MasterDES	OK	Standby	●	●	☑	☐			☐	☐
1	ManDES	OK	Standby			☑	☐	☐	●	☑	☐
2	None										
3	None										
4	None										
5	None										
6	None										
7	None										
8	None										
9	None										
10	None										
11	None										
12	None										
13	None										
14	None										
15	None										
reserve						●				●	
Free								●			●

Apply
Cancel

Help

- 2 Select the check box for the target partition in a column containing an SB that has not been added to any partition (free SB or reserved SB).
- 3 In the Replacement Condition column, set the replacement time condition for each Reserved SB.
Settings can be made in the Replacement Condition column only if the MMB firmware version is 3.24 or later.
- 4 Click the [Apply] button.

Remarks:

To make the Reserved SB free, remove the check mark from the checkbox on the [Reserved SB Configuration] window.

Explanation of the [Reserved SB Configuration] window

Table 4.15 Displayed and setting items in the [Reserved SB Configuration] window

Item	Description
Replacement Condition (only if the MMB firmware version is 3.24 or later)	<p>Sets the condition determining the replacement timing of a Reserved SB that is set in a partition.</p> <ul style="list-style-type: none"> • SB failure: If an SB in the partition is degraded, it is replaced with the specified Reserved SB. • CPU/DIMM failure: If a CPU or DIMM on an SB in the partition is degraded, the SB is replaced with the specified Reserved SB. <p>The default value is [CPU/DIMM failure].</p>

[Replacement Condition] can be set for the following system types:

- PRIMEQUEST 580A/540A/520A
- PRIMEQUEST 500 series running MMB firmware whose version level is 3.24 or later

4.4.9 Setting a partition name

This section explains how set a partition name.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Procedure

- 1 Click [Partition] → [Partition Configuration].
The [Partition Configuration] window is displayed.

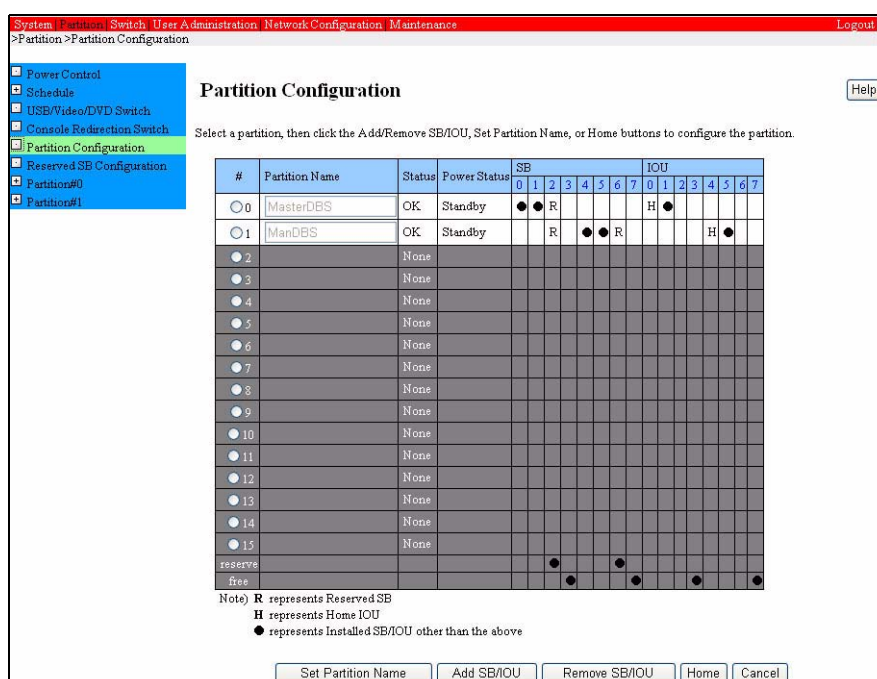


Figure 4.17 [Partition Configuration] window

- 2 Enter a partition name in the [Partition Name] for partition name setting.
Remarks:
 - The name can include up to 16 characters.
You can use the following characters:
0-9, a-z, A-Z, " " (en-size space), #, - (hyphen), _ (underscore)
 - Specify the same name as host name to be set on the OS to make it easier to follow.
- 3 Click the [Set Partition Name] button.
The name is set for the input partition.

4.4.10 Setting various modes

This function sets a variety of partition modes.

Notes:

- Extended Mirror Mode cannot be set in partitions containing SBs, IO Units or an IOX split with XPAR set. No split SB, IO Unit, or IOX can be assigned to a partition that is set in Extended Mirror Mode.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- XPAR is supported only in the PRIMEQUEST 500A/500 series, and the XPAR option is required for setting XPAR.

Remarks:

- The PRIMEQUEST 580A/540A windows shown below are examples used for explanations.
- To set [Extended Mirror Mode] for the mirror mode, the license key must be registered. For details, see [Section 4.4.2, "Enabling the Extended Mirror Modes."](#)

Procedure

- 1 Click [Partition] → [Partition#x] → [Mode].

The [Mode] window is displayed.

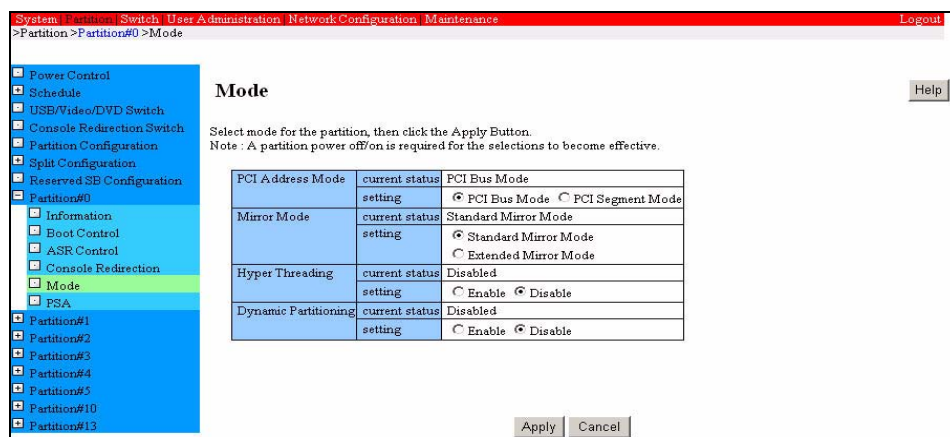


Figure 4.18 [Mode] window (PRIMEQUEST 580A/540A)

- 2 Set the following items:

- PCI address mode (only for PRIMEQUEST 580A/540A/580/540/480/440)
- Mirror Mode
- Hyper Threading (only for PRIMEQUEST 500A/500 series)
- Dynamic Partitioning (only for PRIMEQUEST 580A/540A)

3 Click the [Apply] button.

Note: If the [Apply] button in the [Mode] window is clicked during partition startup processing or while the OS is busy, the dialog box below is displayed.

If you click the [OK] button, a dialog box with a warning is displayed. To change the type of Mirror Mode, the cabinet power must be turned off.

IMPORTANT

- ▶ To apply the changes to settings made on this window, the partition needs to be rebooted.

Explanation of [Mode] window

Table 4.16 Displayed and setting items in the [Mode] window

Item	Description
PCI Address Mode (current status) (PRIMEQUEST 580A/540A/580/540/480/440 only)	Displays a PCI address mode that is enabled in the partition. <ul style="list-style-type: none"> • [PCI Bus Mode]: Defines all PCI spaces in the partition under segment number 0. • [PCI Segment Mode]: Defines the PCI spaces in the partition, segment by segment, for each IO Unit. When they are set in [PCI Segment Mode], a PCI device under IOU#0 appears in the space under segment#0, and a PCI device under IOU#1 also appears in the space under segment#1.
PCI Address Mode (setting) (PRIMEQUEST 580A/540A/580/540/480/440 only)	Sets the PCI address mode of a partition. <ul style="list-style-type: none"> • PCI Bus Mode • PCI Segment Mode The set mode is enabled after the partition is rebooted. Notes: <ul style="list-style-type: none"> • Set PCI Bus Mode for the partition that uses Windows Server 2003 as the OS. • Set PCI Segment Mode for the partition that uses Linux as the OS. • If Linux is installed, PCI Bus Mode must be set in advance. • For information on how to set the PCI address mode for a partition running Windows Server 2008, see the <i>PRIMEQUEST Windows Server 2008 User's Guide</i> (C122-E087EN). <p style="text-align: right;">Default: PCI Bus Mode</p>
Interleave Mode between SBs (only for PRIMEQUEST 480/440)	Note: This mode is displayed for PRIMEQUEST 480/440 machines. However, do not use this mode.

Item	Description
<Mirror Mode>	
Mirror Mode (Current)	Displays Mirror Modes that are currently valid.
Mirror Mode (setting)	<p>Sets the mirror mode. The mirror mode types that can be set are listed below.</p> <p>For details on the mirror modes, see the <i>PRIMEQUEST 580A/540A/580/540/480/440 System Design Guide</i> or <i>PRIMEQUEST 520A/520/420 System Design Guide</i>.</p> <ul style="list-style-type: none"> • Standard Mirror Mode • Extended Mirror Mode <p>Remarks: If "Disable" has been selected for Mirror Mode (setting) in the [System Setup] window, "Mirror Mode" is grayed out and cannot be selected in the [Mode] window.</p> <p>The default setting is [Standard Mirror Mode].</p>
Hyper Threading (current) (Only for the PRIMEQUEST 500A/500 series)	<p>Displays the status of the Hyper Threading function.</p> <ul style="list-style-type: none"> • Enabled: Hyper Threading is enabled. • Disabled: Hyper Threading is disabled.
Hyper Threading (setting) (Only for the PRIMEQUEST 500A/500 series)	<p>Specifies whether to enable the Hyper Threading function.</p> <ul style="list-style-type: none"> • Enable (enabling Hyper Threading) • Disable (disabling Hyper Threading) <p>The default setting is [Disable] (disabling Hyper Threading).</p>
Dynamic Partitioning (current) (PRIMEQUEST 580A/540A series only)	<p>Displays whether the Dynamic Partitioning function is enabled.</p> <ul style="list-style-type: none"> • Enabled: Dynamic Partitioning is enabled. • Disabled: Dynamic Partitioning is disabled.
Dynamic Partitioning (setting) (PRIMEQUEST 580A/540A series only)	<p>Specifies whether to enable the Dynamic Partitioning function.</p> <ul style="list-style-type: none"> • Enable: Enables Dynamic Partitioning. • Disable: Disables Dynamic Partitioning. <p>Note: The DP function is not supported in any of the cases listed below. In these cases, set [Disable] since operation cannot be guaranteed; setting [Enable] leads to a possibility that installation cannot be performed correctly.</p> <ul style="list-style-type: none"> • The system used runs under RHEL with a version level earlier than RHEL 5.1 (IPF). • The system used runs a Windows version earlier than Windows Server 2008. • The system used runs under SUSE. • The virtual machine function is used. <p>The default setting is [Disable] (disabling Dynamic Partitioning).</p> <p>For details, see the <i>PRIMEQUEST 580A/540A Dynamic Partitioning (DP) Manual</i> (C122-E085EN).</p>

4.4.11 Starting a partition

This section explains how to start a partition in the stopped state.

Procedure

- 1 Click [Partition] → [Power Control].

The [Power Control] window is displayed.

Remarks: The "Under Maintenance" item in the [Power Control] window may not be displayed on the PRIMEQUEST 500A/500-series machine, depending on the MMB firmware version. If it is not displayed, the number of the partition under maintenance is displayed beneath "Under Maintenance" in the information area.

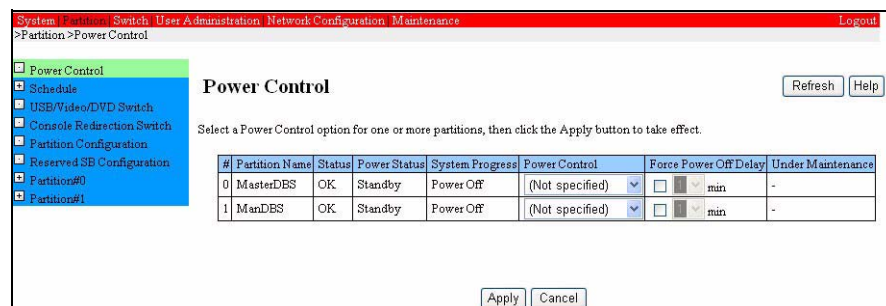


Figure 4.19 [Power Control] window

- 2 In the [Power Control] window, select [Power on] for the target partition, and click the [Apply] button.

Table 4.17 Displayed and setting items in the [Power Control] window

Item	Description
Power Control	<p>Select a power control setting for each partition.</p> <p>The [Power On] selection is not displayed for a powered-on partition. Conversely, the [Power Off], [Reset], [INIT], [Power Cycle], and [Force Power Off] selections are not displayed for a powered-off partition.</p> <ul style="list-style-type: none"> • Power On: Powers on a partition. • Power Off: Powers off a partition. • Power Cycle: Forcibly powers off a partition and powers it on again. • Reset: Resets a partition. • INIT: Generates an INIT interrupt in a partition. • Force Power Off: Forcibly powers off a partition. • Not specified: Issues no instruction to a partition. <p>Note: Executing INIT forcibly terminates applications running in the partition. Before executing INIT, stop important applications. Also, unmount unnecessary file systems.</p>

4.5 Processing after a Reserved SB Is Selected and a Partition Is Automatically Rebooted

This section describes the procedures (such as for checking the current status or resetting) that are performed after a reserved SB is selected and a partition is automatically rebooted.

4.5.1 Checking the status after a reserved SB is selected and a partition is automatically rebooted

To check the status after a reserved SB is selected and a partition is automatically rebooted, use the [Partition Configuration] window, [System Status] window, and [SB#x] window. The status is as follows immediately after a reserved SB is selected and a partition is started:

- The reserved SB instead of a faulty SB is assigned to the partition.
- Any setting made to assign the reserved SB in place of a faulty SB in multiple partitions is cancelled.
- The status of a partition to which a faulty SB is assigned is displayed in the [Partition Configuration] window. If the partition is started, however, the faulty SB does not operate.

4.5.2 Processing after maintenance or replacement of a faulty SB

This section describes the procedure for specifying a reserved SB again after replacement of a faulty SB. Make necessary settings with consideration of the current configuration and operating status.

Note: During maintenance or replacement of an SB, the status of the partition to which this SB is assigned is displayed in the [Partition Configuration] window. However, the maintained or replaced SB does not operate until the partition is rebooted.

In a partition, the maintained and replaced SBs and the SBs assigned in place of faulty SBs are started together when the partition is rebooted after maintenance and replacement is completed.

The kinds of processing available after selecting and starting a reserved SB may be classified as cases 1 to 4 below, or operation may continue with the selected reserved SB without setting a new reserved SB. Unless operation is continued without setting the new reserved SB, the partition configuration requires some kind of processing.

- 1 Resetting a reserved SB assigned to a partition in place of a faulty SB as the reserved SB in the partition
- 2 Setting a maintained or replaced SB as a reserved SB
- 3 Removing an SB assigned to another partition and setting it as a reserved SB
- 4 Setting a free SB as a reserved SB

Procedure 1 is described below.

- 1 Check the status.
 - 1 Click [System] → [System Status].
Check the status in the [System Status] window.
- 2 Stop the relevant partition.
 - 1 Click [Partition] → [Power Control].
The [Power Control] window is displayed.
 - 2 Select [Power off] for Power Control of the relevant partition, and click the [Apply] button.
- 3 Check the partition configuration status.
 - 1 Click [Partition] → [Partition Configuration].
Check the partition configuration status in the [Partition Configuration] window.
- 4 Reset the reserved SB (referred to as the original reserved SB, in this document) assigned to the partition in place of a faulty SB as the reserved SB.
 - 1 Click [Partition] → [Partition Configuration], and then click the [Remove SB/IOU] button.
The [Remove SB/IOU from Partition] window is displayed.
 - 2 Click the radio button of the original reserved SB, and then click the [Apply] button. The original reserved SB is removed from the partition and becomes a free SB.
 - 3 Click [Partition] → [Reserved SB Configuration].
In the [Reserved SB Configuration] window, select the check box of that free SB, select the partition in which it is to be the reserved SB, and click the [Apply] button.

5 Start the partition.

1 Click [Partition] → [Power Control].

In the [Power Control] window, select [Power on] for Power Control of the relevant partition, and click the [Apply] button. The partition is started.

Remarks:

- To use this procedure as the procedure for setting a maintained or replaced SB as a reserved SB, step 2 is not required. For the replaced SB, make the settings for resetting the original reserved SB in step 4.
- To use this procedure as the procedure for removing an SB assigned to another partition and setting it as a reserved SB, the partition to be stopped in step 2 is the partition containing the SB to be set as the reserved SB. Make the settings in step 4 for the SB to be set as the reserved SB.
- To set a free SB as a reserved SB, follow only the above step 4 (3).
- For this free SB, make the settings for resetting the original reserved SB.

4.6 Setting and Checking Log Information

This section explains how to operate log information.

4.6.1 Log information types

The events that occurred in the PRIMEQUEST system are saved in the SEL (System Event Log) of the MMB and can be checked in the Event Log window.

4.6.2 Checking a log of events that occurred in the PRIMEQUEST system

Out of the events that occurred in the PRIMEQUEST system, those that are currently saved in the SEL (System Event Log) of the MMB can be checked.

The SEL can save 1,000 or more events. When a system event log becomes full of entries, the oldest event log is deleted and the newly generated event log is saved in the SEL.

In the [System Event log] window, it is possible to select an event to be displayed in the window, download event data that is saved in the SEL, and clear all events that are saved in the SEL.

The functions are explained in the following procedures.

- Checking event logs
(→ [5.2.3, "\[System Event Log\] window"](#))
- Clearing all events that are saved in the SEL
(→ [5.2.3, "\[System Event Log\] window"](#))
- Downloading event data that is saved in the SEL
(→ [5.2.3, "\[System Event Log\] window"](#))
- Selecting an event to be displayed
(→ [5.2.3.1, "\[System Event Log Filtering Condition\] window \(PRIMEQUEST 580A/540A/580/540/480/440\)"](#))
(→ [5.2.3.2, "\[System Event Log Filtering Condition\] window \(PRIMEQUEST 520A/520/420\)"](#))
- Displaying event details
(→ [5.2.3.3, "\[System Event Log \(Detail\)\] window"](#))

4.6.2.1 Checking event logs

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Procedure

- 1 Click [System] → [System Event Log].
The [System Event Log] window is displayed.

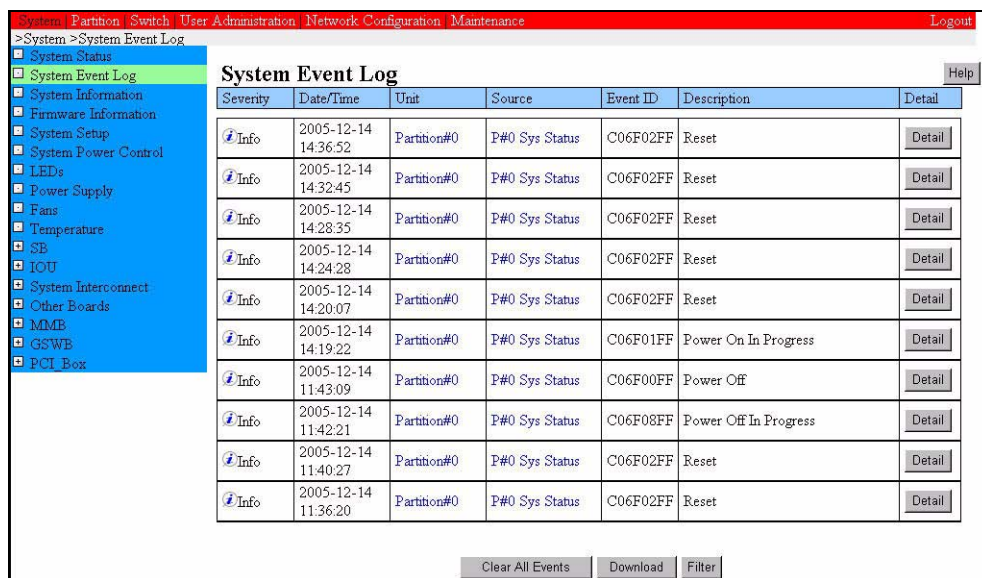


Figure 4.20 [System Event Log] window

- 2 Check the description.
To clear all events that are saved in the SEL, click the [Clear All Events] button.
To download event data that is saved in the SEL, click the [Download] button. To select an event to be displayed in the window, click the [Filter] button.
Click the [Detail] button to display the detailed window of the events corresponding to the button.
See [Sections 4.6.2.2 to 4.6.2.5](#) for details on each operation.
To cancel these settings to return to the previous state, click the [Cancel] button.

Remarks:

An error that occurred during operation can be reported by e-mail. See [Section 5.5.12, "\[Alarm E-Mail\] window"](#) for details on specifying whether to report errors and setting the error level and report destination.

Explanation of [System Event Log] window

Table 4.18 Displayed and setting items in the [System Event Log] window

Item	Description
Severity	Displays the severity of an event and error. <ul style="list-style-type: none"> • [Error]: Important problem such as hardware problem • [Warning]: Event not always important but likely to be a problem in the future • [Info]: Event as information such as partition power-on
Date/Time	Displays in the local time the date and time when an event or error occurred. Format: yyyy-MM-dd HH:mm:ss
Unit	Displays the unit containing a sensor by which an event or error was detected. Example: If an error occurred in CPU #A0 on SB#0, "SB#0" is displayed. Clicking on the indicated unit displays the information window (the window indicating the individual parts number and serial number of the unit) for that unit.
Source	Displays the name of the sensor that detected an event or an error. Clicking on the indicated sensor name displays either a window indicating the sensor status, or the information window for the unit containing the sensor.
Event ID	Displays an ID (eight-digit hexadecimal number) that identifies an event. If no suitable ID exists, "-" is displayed.
Description	Displays event or error details. For a sensor for which something other than [Trig Offset] is indicated for event data, the event data itself is displayed. Example: Sensors for which [R] and [T] is indicated: The reading and limit values at the time an event occurred are displayed. Notes: If the event involves board insertion or removal, the part number and serial number of the board are displayed.
Detail	Detail button of each event

4.6.2.2 Clearing all events that are saved in the SEL

Procedure

- 1 Click the [Clear All Events] button in the [System Event Log] window.
A confirmation dialog box is displayed.
- 2 Click [OK].
All events are cleared.
To cancel the clearance, click [Cancel].

4.6.2.3 Downloading event data that is saved in the SEL

The event data that is saved in the SEL is required for a Fujitsu certified service engineer to analyze the system status.

Remarks:

You may be requested to download the event data and submit it to the Fujitsu certified service engineer.

Procedure

- 1 Click the [Download] button in the [System Event Log] window.
A dialog box for specifying a saving file path name is displayed.
- 2 Enter the path name.
Event data that is saved in the SEL is downloaded onto a PC with the Web-UI window displayed.

4.6.2.4 Selecting an event to be displayed

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

Procedure

- 1 Click the [Filter] button in the [System Event Log] window.
The [System Event Log Filtering Condition] window is displayed.

Figure 4.21 [System Event Log Filtering Condition] window

- 2 Specify selection conditions and click the [Apply] button.
The [System Event Log] window is restored showing the events that satisfy the selection conditions.
Click the [Cancel] button to cancel the specified selection conditions and redisplay the [System Event Log] window.

Explanation of [System Event Log Filtering Condition] window

Table 4.19 Displayed and setting items in the [System Event Log Filtering Condition] window

Item	Description
Severity	<p>Selects with a check box the severity level to be displayed. More than one can be selected.</p> <ul style="list-style-type: none"> • [Error]: Important problem such as hardware problem • [Warning]: Event not always important but likely to be a problem in the future • [Info]: Normal event such as partition power-on <p>Default: All</p>
Partition	<p>Selects a partition with a check box.</p> <p>Selects [All] or [Specified] with a radio button.</p> <ul style="list-style-type: none"> • Select [All] to not implement filtering by partition. In this case, the check box of each partition for [Specified] cannot be selected. • Select [Specified] to select the check box of each partition to be selected. <p>Default: [All]</p>
Unit	<p>Selects units to be displayed using the radio button of [All] or [Specified].</p> <ul style="list-style-type: none"> • Select [All] to not implement filtering by unit. • When [Specified] is selected, filtering by unit can be set; select the check box of a unit whose event you want to display. <p>Default: [All]</p>
Source	<p>Selects a source to be displayed.</p> <p>Select [All] or [Specified] with the radio button.</p> <ul style="list-style-type: none"> • Select [All] to not implement filtering by source. • When [Specified] is selected, filtering by source can be set; select the check box of a source whose event you want to display. <p>Default: [All]</p>
Sort by Date/Time	<p>Selects the radio button for "Sorting from oldest to most recent" or "Sorting from most recent to oldest."</p> <p>Default: New event first</p>
Start Date/Time	<p>Specifies the start time for the range of events to be displayed. The first event or Date/Time can be selected with a radio button.</p> <p>Default: First event</p>
End Date/Time	<p>Specifies the end time for the range of events to be displayed. The last event or Date/Time can be selected with a radio button.</p> <p>Default: End event</p>
Number of events to display	<p>Specifies the number of logs to be displayed. The denominator displays the total number of events logged.</p> <p>Default: 100 logs</p>

4.6.2.5 Displaying event details

Procedure

- 1 Click the [Detail] button of an event whose details are to be displayed.
The [System Event Log (Detail)] window is displayed.

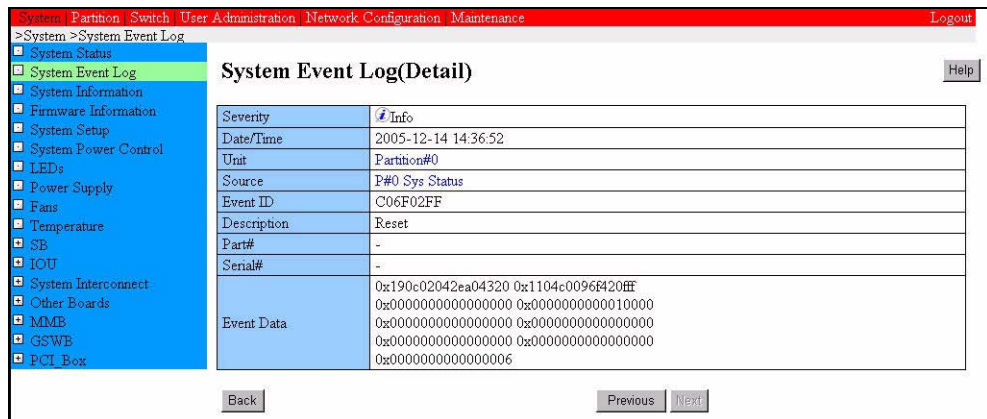


Figure 4.22 [System Event Log (Detail)] window

- 2 Click a corresponding operator button.
[Back] button: Returns to the System Event Log window.
[Prev] button: Displays the detail information of the previous event in the System Event Log window. Instead of the order of events in the actual SEL, only the events displayed in the System Event Log window are handled.
[Next] button: Displays the detail information of the next event in the System Event Log window.

Explanation of [System Event Log (Detail)] window

Table 4.20 Displayed and setting items in the [System Event Log (Detail)] window

Item	Description
Severity	Displays events and error severities. <ul style="list-style-type: none"> • [Error]: Important problem such as hardware error • [Warning]: Event that is not always important but may lead to a problem in the future • [Info]: Event information such as about partition power-on
Date/Time	Displays in the local time the date and time when an event or error occurred. Format: yyyy-MM-dd HH:mm:ss
Unit	Displays the unit containing a sensor by which an event or error was detected. Example: If an error occurred in CPU #A0 on SB#0, "SB#0" is displayed. Clicking on the indicated unit displays the information window (the window indicating the individual parts number and serial number of the unit) for that unit.
Source	Displays the name of the sensor that detected an event or an error. Clicking on the indicated sensor name displays either a window indicating the sensor status, or the information window for the unit containing the sensor.
Event ID	Displays an ID (eight-digit hexadecimal number) that identifies an event. If no suitable ID exists, "-" is displayed.
Description	Displays event or error details. For a sensor for which something other than [Trig Offset] is indicated for event data, the event data itself is displayed. Example: Sensors for which [R] and [T] is indicated: The reading and limit values at the time an event occurred are displayed. Notes: If the event involves board insertion or removal, the part number and serial number of the board are displayed.
Part#	Part# of a component whose event is created. If Part# is not available, "-" is displayed.
Serial#	Serial number of a component whose event is created
Event Data	Hexadecimal display of [Event Data]

4.7 Console Operation

This section explains console redirection.

Here, the window displayed for the PRIMEQUEST 580A/540A/580/540/480/440 is described as an example.

4.7.1 Overview of console redirection

Console redirection function

This function redirects console output and EFI console output for the COM port of the OS that is operating on each partition, to a Telnet/SSH client via the MMB.

Console redirection configuration

A Zircon chip mounted on the BMM board provides a serial interface for the OS and EFI. The OS and EFI provide console output to the serial interface in the same manner as for the usual serial output.

The MMB performs a serial over LAN conversion for the serial output onto a private LAN and reports the serial output to the MMB.

The MMB sends the serial output to the Telnet/SSH client. Conversely, input from the Telnet/SSH client is reported to the OS and EFI via the Zircon.

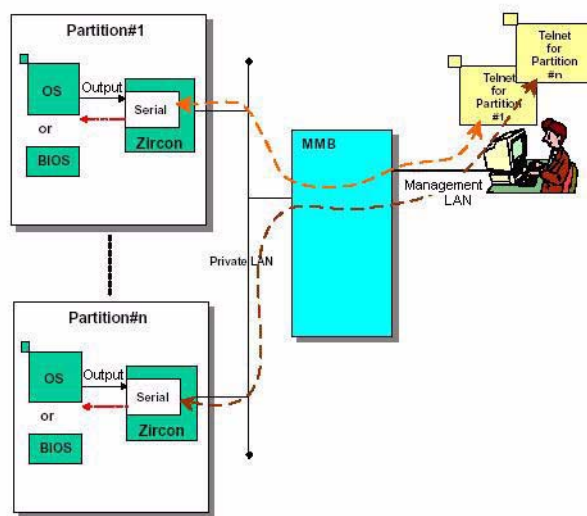


Figure 4.23 Concept of console redirection

4.7.2 MMB settings of console redirection switch

A console redirection switch is set to redirect the serial output of each partition to the MMB side.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

- 1 Click [Partition] → [Console Redirection Switch].
The [Console Redirection Switch] window is displayed.

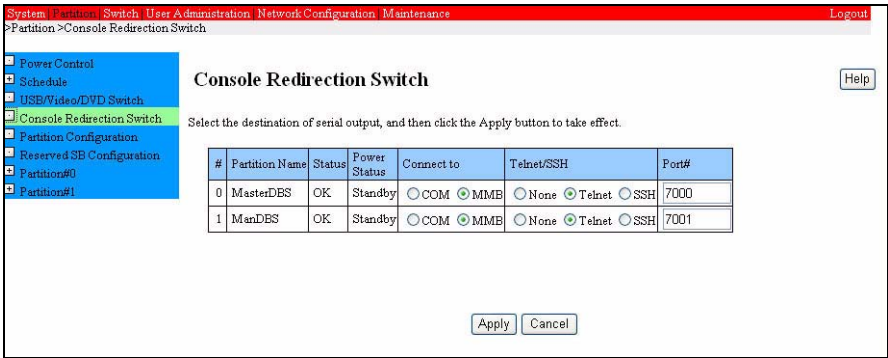


Figure 4.24 [Console Redirection Switch] window

- 2 Enter the required items.
Remarks:
To display the console redirection window of each partition from the MMB Web-UI, select an MMB in [Connect to].
- 3 Click the [Apply] button.

Explanation of [Console Redirection Switch] window

Table 4.21 Displayed and setting items in the [Console Redirection Switch] window

Item	Description
#	Displays a number for identifying a partition. In the case of a PRIMEQUEST 580A/540A/580/540/480/440, the displayed partition number is from 0 to 15. In the case of a PRIMEQUEST 520A/520/420, a number from 0 to 3 is displayed. This window displays only a partition that includes at least one LSB and one LIOU.
Partition Name	Displays the name assigned to a partition. Remarks: Specify the same name as Host Name to be set on the OS to make the name easy to recognize.
Status	Displays a partition status. <ul style="list-style-type: none">• [OK]: Normal• [Degraded]: Component error has occurred. (The failed component can be disconnected to continue operation.)• [Warning]: Warning status is in effect. (A problem may occur in the future.)• [Failed]: Failure has occurred.• [None]: No SB or IO unit is assigned to the partition.
Power Status	Displays a partition power status. <ul style="list-style-type: none">• [On]: Power-on• [Standby]: Power standby
Connect to	Specifies whether to send an OS serial output to an IO Unit COM port or redirect it to a remoter client via an MMB. <ul style="list-style-type: none">• [COM]: Outputs to COM port.• [MMB]: Redirects to remote client via MMB. Default: [COM]
Telnet/SSH	Select from Telnet/SSH a protocol used for remote client to connect to the console redirection. <ul style="list-style-type: none">• [Telnet]• [SSH]• [None] If [None] is selected, only the Web-UI console redirection window can be displayed.
Port	As port numbers for remote client to connect to the console redirection, 1,024 or more port numbers can be entered.

Remarks:

To connect to the Partition#0 console redirection in [Figure 4.24](#), enter the command as indicated below in the terminal software of the remote client.

```
#  
# telnet <IP-address-of-MMB> 7000
```

4.7.3 Telnet/SSH user procedure

The following indicates a procedure to communicate with the COM port of the OS or PAL/SAL/EFI that is operating on each partition by using Telnet/SSH from the remote PC.

- 1 Specify a port number that is allocated to a partition.
The login prompt for certification is displayed from the MMB.

Remarks:

To use Telnet/SSH, specify the port number that is allocated to the partition where you want to communicate with the MMB IP address. Set the port number for the partition in advance from the Web-UI.

Example: Enter the port number as follows.

```
telnet <IP-address-of-MMB> <port-number>
```

- 2 Enter the MMB account/password.
Input-output to the COM port of the connected partition is enabled.

Remarks:

The MMB can set a maximum of 16 ports for each partition. Also, the MMB can independently connect to the COM port of each partition.

4.7.4 Buffering of console redirection

The MMB has a screen buffer for the console redirection of each partition. The screen buffer size that can be set on the client terminal is as follows:

- Screen width: 80 only
- Screen height: Up to 512 lines

When the screen buffer is used to connect to the console redirection, the screen image that was output before to the COM port from the partition can be displayed.

Example: When Linux, which was operating in partition #1, failed

Connect to the partition #1 console redirection via the MMB by using Telnet/SSH from the remote PC.

When the connection to the console redirection is completed, the MMB sends to the Telnet/SSH client on the remote PC, the screen buffer output that is set in partition #1.

Even if the connection to the console redirection is made later by using this function, the earlier COM port output can be viewed with the preset screen buffer output.

Remarks:

Only one connection is enabled for one partition.

4.7.5 Console redirection to Web-UI

A console redirection to the Web-UI is provided as an interface to view only the console redirection output.

Note:

The Console Redirection window may not be displayed normally because the following restrictions apply to it:

- Because the Console Redirection window outputs escape sequences without modification, the window display is not the same as that output on the terminal in the following cases:
 - Operation is performed using the delete, back space, page up or page down keys.
 - The ls command is executed on the OS Console (the beginning of the prompt is not normally displayed).
 - Colored characters are displayed.
- The Console Redirection window is displayed using character code set ISO-8859-1. If any character that is not supported is included in the display window, the contents of the [Console Redirection] window may not be displayed normally.

By selecting the console redirection window of a partition that you want to view with the MMB Web-UI, the COM port output that is buffered on the MMB side can be viewed.

Because this output is not automatically updated, it is necessary to manually refresh the screen to view the latest information or enable the automatic refreshing function.

Remarks:

Specify a refresh rate in [Refresh Rate] in the [Network Configuration] menu. By default, "Automatic Refresh = Disable" is selected. See [Section 5.5.6, "\[Refresh Rate\] window,"](#) for details on the operation.

- 1 Click [Partition] → [Partition#x] → [Console Redirection] in the MMB menu.
The partition console output is displayed. The console enables the output, but not the input.

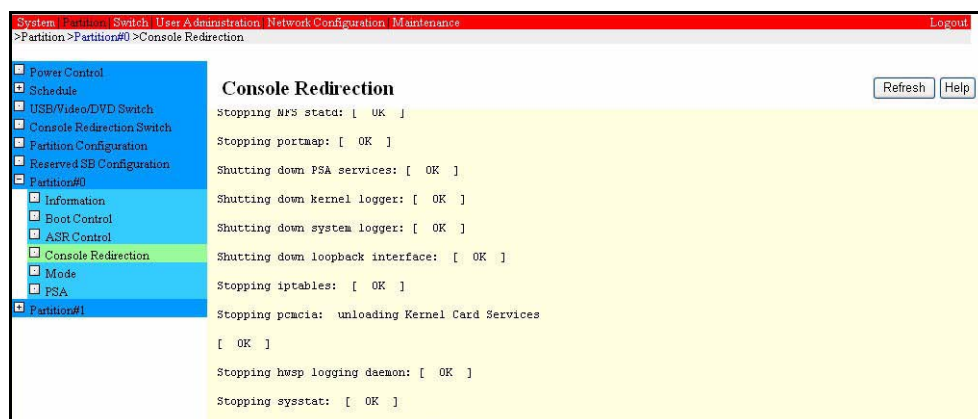


Figure 4.25 [Console Redirection] window (console output window)

Remarks:

If the output destination of the partition serial output port is set to the COM port on the IO Unit instead of the MMB, the console output cannot be displayed; therefore, the following window is displayed.

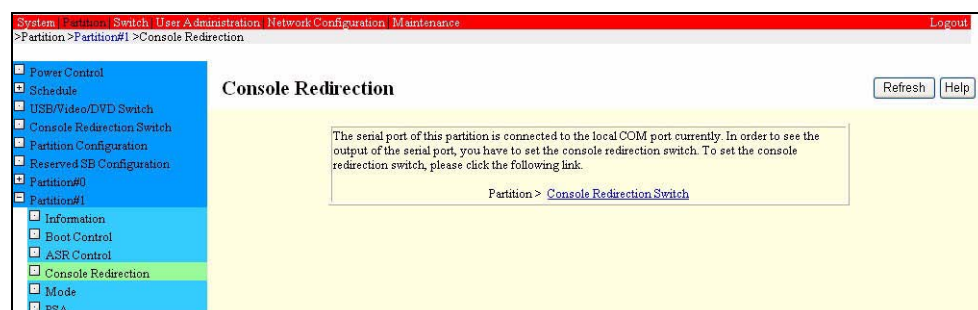


Figure 4.26 [Console Redirection] window (when the output destination is set to the COM port on the IO Unit)

4.8 PSA Functions

Figure 4.27 shows the major functions of PRIMEQUEST. The major PSA functions are shown in the center column in the figure.

This section explains the PSA functions individually.

Remarks: The GSWB can be mounted only in PRIMEQUEST 580A/540A/580/540/480/440 servers.

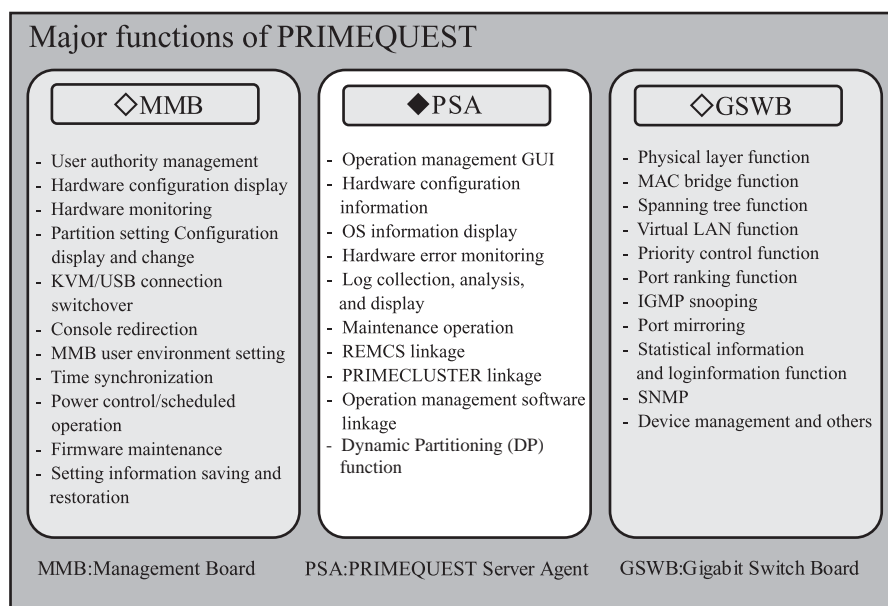


Figure 4.27 Major PSA functions

Operation management GUI

The operation management GUI is a Web-UI function used for operation on the partition side.

PSA on each partition cooperates with MMB firmware, so the partition can be displayed and manipulated from MMB Web-UI without the need for the partition to have the Web server function.

Upon receipt of a request from the user, MMB firmware distributes the corresponding Web screen. PSA further collects information according to the request from the partition and displays it on the Web screen.

Remarks:

The functions listed below are supported by the Command Line Interface (CLI) so that command line operation and script operation can be performed from the OS console. For more information, see [CHAPTER 6, "CLI Operations."](#)

For the DP operation commands, see *PRIMEQUEST 580A/540A Dynamic Partitioning (DP) Manual* (C122-E085EN).

- SAF_TE operator command (used by a Fujitsu certified service engineer for disk hot-swapping)
- PSA start/stop command
- PSA investigation data collection command
- Filter definition update command
- Local partition number acquisition command
- Serial number acquisition command
- SNMP security setting command
- Get firmware information command
- fjsvdr (DP operation command)

Hardware configuration management

This function displays the hardware resources constituting partitions. The following types of configuration information can be displayed:

- SB configuration and IO Unit (IOU/IOX for PRIMEQUEST 520A/520/420) configuration
- CPU configuration (maximum number of CPUs that can be mounted, CPU mounting locations, CPU identification information, and error status (PSA 1.11 or earlier))
- Memory configuration (memory mounting locations, detail information including memory types, and error status (PSA 1.11 or earlier))
- PCI configuration (PCI card installation, PCI device installation, detail information including PCI device types, and error status)
- SCSI/FC connection device configuration (HDD, tape, and others)
- Network configuration (network interface, and error status)

OS information display

This function displays information on the OS installed in a partition.

The following types of information can be displayed:

- OS information (OS type, OS version, and package installation information)
- Storage configuration information (device and capacity)
- Network configuration information (interface, connection status, speed, and routing information)
- OS status (operating hours and number of logins)
- Process list display

Hardware error monitoring

This function monitors partitions for hardware errors.

PSA monitors PCI cards in the partition, error information output by SAS device drivers, the power supply of expansion file units, and FAN errors, and periodically monitors for predictive signs of errors detected by the S.M.A.R.T. (Self-Monitoring Analysis and Reporting Technology) function of hard disks.

When an error is detected, PSA analyzes it, identifies the unit where the error occurred, records that unit as log information, and reports to the MMB and upper management software.

As for errors of expansion file units, PSA monitors them in five-minute intervals.

PSA also monitors various logs of errors the hardware detects in the CPU, memory, chip sets, and inter-chip busses.

PSA executes error analysis to determine a component or unit that caused more correctable errors than the threshold in a given period. PSA then records this information as log information and notifies MMB and upper-level system management software. This is to enable the system to automatically isolate components and units with signs of faults during subsequent reboot. This notification for urging isolation is referred to as a degradation reservation.

Remarks: The error analysis/degradation reservation function is supported by PSA 1.11 and earlier.

Log collection, analysis, and display

This function executes log collection, analysis, and display for the hardware predictive function.

When notified of various types of log information from firmware, various drivers, and the OS, the function saves error messages to log files and displays them. The function also executes event filtering and predefined actions such as notification by e-mail or via the REMCS, issuing an SNMP trap, and saving a log.

Once a hardware error is detected and reported by e-mail, via the REMCS, or with an SNMP trap, any errors detected at the same location are not reported. (However, such errors would be displayed and recorded in a log file).

This suppression of reporting is canceled when:

- the suppression period (1 hour in Japan or 24 hours outside Japan) expires,
- the hardware unit is removed or replaced,
- the error status is cleared through the Web-UI,

- the operating system is rebooted, or
- PSA is restarted.

The table below lists the PSA log files with outlines of the files.

Table 4.22 Log files

Log file	Outline
Agent log	PSA action events (e.g., saving to OS log files and issuing SNMP traps) are stored as agent log data (except for events whose event ID ranges from 00000 to 09999). This type of log can be displayed in GUI and downloaded through GUI as a CSV format file.
Error log	Information on the errors detected by firmware is logged by the OS machine check handler. PSA monitors the error information logged by the OS machine check handler and stores it in the OS log file.
System Event Log	The system event log is stored on the MMB, and a partition can collect only information about the partition. PSA periodically polls the system event log and stores the logged data in the OS log file. The logged data thus stored can be downloaded through the GUI as a binary format file.

Remarks:

For details of the agent log, see the *PRIMEQUEST 500A/500/400 Series Reference Manual: Messages/Logs* (C122-E004EN).

Note:

If the time zone is changed when PSA is active, the local time in PSA is not updated. To update the local time, restart PSA.

Maintenance operation

This function supports hot swapping of hard disks on partitions.

The SCSI controller of the hard disk used for the PRIMEQUEST enables power-on/off and insertion/extraction of the disk by using the SCSI Accessed Fault-Tolerant Enclosure (SAF-TE) function. PSA provides SAF-TE operator commands that allow the user to use the SAF-TE function to safely carry out disk replacement or disk expansion when a hardware fault is detected.

Remarks: The SAF-TE operator command is supported only under Linux.

REMCS linkage

This function reports partition resource information and errors to the REMCS center, by linking with the MMB.

REMCS Agent reports PRIMEQUEST system errors and log information to the REMCS Center via the Internet or a P-to-P connection.

PRIMEQUEST REMCS Agent consists of MMB firmware and a PSA and an SIRMS to be installed on each partition. PSA reports errors detected by the OS on the partition and available hardware resources, to the REMCS center via MMB firmware. PSA also reports software configuration information and software error information detected by SIRMS, to the REMCS center via MMB firmware.

See Chapter 7, "REMCS" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN) for details on the REMCS.

PRIMECLUSTER linkage

This function enables linkage with PRIMECLUSTER (clustering system).

The function allows for a clustering configuration that works with PRIMECLUSTER. A cluster consisting of multiple nodes can form a redundant configuration having active and standby systems. (A node can be considered as a server, and as one partition as far as PRIMEQUEST is concerned.)

If the active system becomes unusable such as because of a fault, the operation by the active system can be taken over by the standby system.

The PRIMECLUSTER linkage function is installed in MMB firmware and PSA to support the following functions:

- System status monitor/display: Monitors and displays the status of the specified node (partition).

- System status notification: Notifies a remote node, which makes up a cluster, of a status change of the local node.
- Event reception from another system: Receives a status change of a remote node.
- Instruction to another system: Issues an instruction to the specified remote node.

Remarks: The PRIMECLUSTER linkage is supported only under Linux.

Linkage with upper-level operation management software

This function enables a linkage with upper-level operation management software.

The function enables PSA to work with Systemwalker. It uses SNMP (Simple Network Management Protocol) as a linkage means.

Dynamic Partitioning (DP) function (PRIMEQUEST 580A/540 only)

Dynamic Partitioning (DP) is the function that adds or replaces an SB to a partition in which the OS is running.

For details, refer to the *PRIMEQUEST 580A/540A DP (Dynamic Partitioning) Manual* (C122-E085EN).

4.8.1 Information managed by a partition

Table 4.23 Information managed by a partition

Type of information	Description	
Hardware information	Model information	CPU information: Mounting information, status, type, version, frequency
		Memory information: Mounting information, status, type (size)
		SB/IO Unit, IOX/PCI-Box information: Mounting information
		PCI card information: Mounting information, adapter name, detail information
		Connection I/O information: Mounting information, type, detail information
System information	Operating System: OS type, version	
	Disk-related information: File system setup, etc.	
	Network-related information: Interface Name, Network Type, MACAddress, Interface Speed, Current Status (up/down/link down), Packet Size	
	Other I/O information	

Note:

MMB Web-UI supports the following browsers. Note that the Web-UI window may not be displayed normally if another browser is being used.

- Microsoft ® IE (Internet Explorer) v5.5 (SP2) or later
- Netscape v7.02 or later

4.9 Collecting PSA Troubleshooting Information

If an error occurs in PSA, collect PSA troubleshooting information by using the following methods:

- For Linux
Use the system data output tool (fjsnap) to collect system information and PSA troubleshooting information.
See Section 1.5, "Collecting Maintenance Data (Linux)" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information (C122-E074EN)* for details on using the tool.
- For Windows
Use the Software Support Guide to collect system information and PSA troubleshooting information. For how to use the Software Support Guide and other details, refer to the Software Support Guide manual.

To collect troubleshooting information for PSA only according to a support group request, use the PSA troubleshooting information collection command (getopsa). See [Section 8.4, "PSA Troubleshooting Data Collection Command \(getopsa\),"](#) for details on using getopsa.

Part III MMB

CHAPTER 5 Web-UI Operations

This chapter describes how to operate and manage the PRIMEQUEST-series machine from the MMB Web-UI, and it provides a list of menus in the MMB Web-UI window and describes the associated windows and operations.

5.1 List of Menus in the Web-UI Window

This section provides a list of menus for the Web-UI.

The abbreviations in the Privilege column mean the following:

- RW : The user can read and write in the window concerned.
- RO : The user can only read in the window concerned.
- N/A : The window and submenu concerned are not displayed.

5.1.1 List of menus for the PRIMEQUEST 580A/540A/580/540/480/440

Table 5.1 Menus (PRIMEQUEST 580A/540A/580/540/480/440)

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
System									
System Status					RO	RO	RO	RO	Displays the status of the entire system.
System Event Log					RW	RO	RO	RO	Displays the system event log.
System Information					RW	RO	RO	RO	Displays system information such as system and product names.
Firmware Information					RO	RO	RO	RO	Displays firmware version information.
System Configuration					RW	RO	RO	RW	Specifies the system configuration.
System Power Control					RW	RO	RO	RO	Controls power.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
	LEDs				RW	RW	RW	RW	Displays LED statuses.
	Power Supply				RW	RO	RO	RO	Displays the power status.
	Fans				RW	RO	RO	RW	Displays fan statuses.
	Temperature				RO	RO	RO	RO	Displays the readings from temperature sensors in the PRIMEQUEST-series machine.
	SB								Displays only the submenus for the installed SBs.
	SB#0				RW	RW	RO	RW	Controls the SB and displays its status.
	SB#1				RW	RW	RO	RW	
	SB#2				RW	RW	RO	RW	
	SB#3				RW	RW	RO	RW	
	SB#4				RW	RW	RO	RW	
	SB#5				RW	RW	RO	RW	
	SB#6				RW	RW	RO	RW	
	SB#7				RW	RW	RO	RW	
	IO Unit								Displays only the submenus for the installed IO Units.
	IO Unit#0				RW	RW	RO	RW	Controls the IO Unit and displays its status.
	IO Unit#1				RW	RW	RO	RW	
	IO Unit#2				RW	RW	RO	RW	
	IO Unit#3				RW	RW	RO	RW	
	IO Unit#4				RW	RW	RO	RW	
	IO Unit#5				RW	RW	RO	RW	
	IO Unit#6				RW	RW	RO	RW	
	IO Unit#7				RW	RW	RO	RW	
	System Interconnect								
	XAI#0				RW	RW	RO	RW	Controls the XAI and displays its status.
	XAI#1				RW	RW	RO	RW	

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
				XDI#0	RW	RW	RO	RW	Controls the XDI and displays its status.
				XDI#1	RW	RW	RO	RW	
				XDI#2	RW	RW	RO	RW	
				XDI#3	RW	RW	RO	RW	
				Other Board					
				CPCB	RW	RW	RO	RW	Controls the CPCB and displays its status.
				KVM	RW	RW	RO	RW	Controls the KVM and displays its status.
				OP-panel	RW	RW	RO	RW	Controls the OP-panel and displays its status.
				FANBP	RW	RW	RO	RW	
				PDB	RW	RW	RO	RW	
				MMB					
				MMB#0	RW	RW	RO	RW	Displays MMB information and specifies LEDs.
				MMB#1	RW	RW	RO	RW	
				GTHB (PRIMEQUEST 580A/540A/580/540 only)					Displays only the submenus for the installed GTHBs.
				GTHB#0	RW	RW	RO	RW	Controls the GTHB and displays its status.
				GTHB#1	RW	RW	RO	RW	
				GSWB					Displays only the submenus for the installed GSWBs.
				GSWB#0	RW	RW	RO	RW	Controls the GSWB and displays its status.
				GSWB#1	RW	RW	RO	RW	
				PCI_Box					This submenu is displayed for PCI_Box connections. Only the submenus for the installed PCI_Boxes are displayed.
				PCI_Box#0	RW	RW	RO	RW	Displays the PCI_Box status.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
			PCI_Box#1		RW	RW	RO	RW	
			PCI_Box#2		RW	RW	RO	RW	
			PCI_Box#3		RW	RW	RO	RW	
			PCI_Box#4		RW	RW	RO	RW	
			PCI_Box#5		RW	RW	RO	RW	
			PCI_Box#6		RW	RW	RO	RW	
			PCI_Box#7		RW	RW	RO	RW	
			Partition						
			Power Control		RW	RW	RO	RO	Power control of a partition
			Schedule						
			Schedule Control		RW	RW	RO	RO	Specifies information for scheduled operations.
			Schedule List		RW	RW	RO	RO	Sets the power-on and power-off schedule.
			USB/Video/DVD Switch		RW	RW	RO	RW	Switches to USB, Video, or DVD connection.
			Console Redirection Switch		RW	RW	RO	RW	Specifies the output destination of console redirection for a partition.
			Partition Configuration		RW	RO	RO	RO	Changes the partition configuration.
			Split Configuration (PRIMEQUEST 580A/540A/580/540 only)						
			SB Split		RW	RO	RO	RO	Sets splitting or merging of an SB.
			IOU Split		RW	RO	RO	RO	Sets splitting or merging of an IO Unit.
			Reserved SB Configuration		RW	RO	RO	RW	Specifies spare SBs.
			Partition#0						
			Information		RO	RO	RO	RO	Displays the status and other kinds of information about the partition.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
				Boot Control	RW	RW	RO	RO	Boot control of the partition
				ASR Control	RW	RO	RO	RO	Specifies the automatic restart conditions for the partition.
				Console Redirection	RO	RO	RO	RO	Displays console output for the partition (input not allowed).
				Mode	RW	RW	RO	RO	Sets a partition mode.
				PSA	See Part IV, "PSA."				
				Partition#1	Same as Partition#0				
				Partition#2	Same as Partition#0				
				Partition#3	Same as Partition#0				
				Partition#4	Same as Partition#0				
				Partition#5	Same as Partition#0				
				Partition#6	Same as Partition#0				
				Partition#7	Same as Partition#0				
				Partition#8	Same as Partition#0				
				Partition#9	Same as Partition#0				
				Partition#10	Same as Partition#0				
				Partition#11	Same as Partition#0				
				Partition#12	Same as Partition#0				
				Partition#13	Same as Partition#0				
				Partition#14	Same as Partition#0				
				Partition#15	Same as Partition#0				
				Switch	See <i>PRIMEQUEST GSWB User's Manual</i> (C122-E028EN)				Displayed only when GSWB is installed.
				GSWB#0					
				GSWB#1					
				GSWB Status					
				Configuration Copy					
				User Administration					
				User List	RW	N/A	N/A	N/A	Displays a list of registered user accounts, deletes these accounts, and is used to edit the accounts.
				Change Password	RW	RW	RW	RW	Changes the password of the current user account.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
Who					RO	RO	RO	RO	Displays the users connected to the MMB Web-UI.
Network Configuration									
Date/Time					RW	RO	RO	RO	Specifies the MMB date and time.
Network Interface					RW	RO	RO	RO	Specifies the IP address used to access the MMB, etc.
Management LAN Port Configuration					RW	N/A	N/A	N/A	Specifies the Port VLAN of the MMB HUB.
Network Protocols					RW	RO	RO	RO	Specifies the network protocols of the MMB.
Refresh Rate					RW	RW	RW	RW	Specifies the refresh rate of an HTTP/HTTP page.
SNMP Configuration					RW	N/A	N/A	N/A	This submenu is displayed only if [Enable] is set for SNMP in [Network Protocols].
SNMP Community					RW	N/A	N/A	N/A	Specifies the SNMP community.
SNMP Trap					RW	N/A	N/A	N/A	Specifies the trap transmission destination.
SNMPv3 Configuration					RW	N/A	N/A	N/A	Specifies the engine ID and users unique to SNMP v3.
SSL									
Create CSR					RW	N/A	N/A	N/A	Creates private keys and CSRs.
Export Key/CSR					RW	N/A	N/A	N/A	Exports private keys and CSRs.
Import Certificate					RW	N/A	N/A	N/A	Installs a certificate.
Create Selfsigned Certificate					RW	N/A	N/A	N/A	Creates a self-signed certificate.
SSH									
Create SSH Server Key					RW	N/A	N/A	N/A	Creates SSH server private keys.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
	Remote Server Management				RW	N/A	N/A	N/A	Specifies the user configuration used to control the MMB using RMCP.
	Access Control				RW	N/A	N/A	N/A	Defines the IP filter to enable access.
	Alarm E-Mail				RW	N/A	N/A	N/A	Defines e-mail notification for events.
	License								
	Mirror Licence				RW	N/A	N/A	N/A	Registers a license to enable System Mirror.
	XPAR License (PRIMEQUEST 580A/ 540A/580/540 only)				RW	N/A	N/A	N/A	Registers a license for splitting SBs and IO Units.
	32CPU License (PRIMEQUEST 580A/ 540A/580/540 only)				RW	N/A	N/A	N/A	Registers a license to enable the function for operation with 32 CPUs.
	32-way Upgrade License				RW	N/A	N/A	N/A	Registers a license to enable the function for operation with 32 CPUs.
	Maintenance								
	Firmware Update								
	MMB Firmware Update				RW	N/A	N/A	RW	Updates MMB firmware.
	GSWB Firmware Update				RW	N/A	N/A	RW	Updates GSWB firmware. Displayed only when GSWB is installed.
	PAL/SAL Firmware Update				RW	N/A	N/A	RW	Uploads PAL/SAL firmware to the MMB.
	EFI Firmware Update				RW	N/A	N/A	RW	Used to select the partition for an update of the PAL/SAL/EFI firmware registered with the MMB.
	BMC Firmware Update				RW	N/A	N/A	RW	Updates the BMC firmware.
	Backup/Restore Configuration								Backup/Restore of setting values.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
				Backup/Restore MMB Configuration	RW	N/A	N/A	RW	Backs up and restores MMB configuration information.
				Backup EFI Configuration	RW	N/A	N/A	RW	Backs up EFI configuration information.
				Restore EFI Configuration	RW	N/A	N/A	RW	Restores EFI configuration information.
				Maintenance Wizard	RW	N/A	N/A	RW	Wizard-based maintenance
				REMCS					See Chapter 7, "REMCS" in the <i>PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information</i> (C122-E074EN).
				REMCS	RW	N/A	N/A	RW	
				Detailed Setup	RW	N/A	N/A	RW	

5.1.2 List of menus for the PRIMEQUEST 520A/520/420

Table 5.2 Menus (PRIMEQUEST 520A/520/420)

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
System									
System Status					RO	RO	RO	RO	Displays the status of the entire system.
System Event Log					RW	RO	RO	RO	Displays the system event log.
System Information					RW	RO	RO	RO	Displays system information such as system and product names.
Firmware Information					RO	RO	RO	RO	Displays firmware version information.
System Setup					RW	RO	RO	RW	Specifies the system configuration.
System Power Control					RW	RO	RO	RO	Controls power.
LEDs					RW	RW	RW	RW	Displays LED statuses.
Power Supply					RO	RO	RO	RO	Displays the power status.
Fans					RW	RO	RO	RW	Displays fan statuses.
Temperature					RO	RO	RO	RW	Displays the readings from temperature sensors in the PRIMEQUEST-series machine.
SB									Displays only the submenus for the installed SBs.
SB#0					RW	RW	RO	RW	Controls the SB and displays its status.
SB#1					RW	RW	RO	RW	
IO Unit									Displays only the submenus for the installed IO Units.
IO Unit					RW	RW	RO	RW	Controls the IO Unit and displays its status.
IOX					RW	RW	RO	RW	

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
Other Board									
BP					RW	RW	RO	RW	
FANBP					RW	RW	RO	RW	
IOBP					RW	RW	RO	RW	
OP-panel					RW	RW	RO	RW	Controls the OP-panel and displays its status.
PDB					RW	RW	RO	RW	
MMB					RW	RW	RO	RW	Displays MMB information and specifies LEDs.
PCI_Box					RW	RW	RO	RO	This submenu is displayed for PCI_Box connections. Displays the PCI_Box status.
Partition									
Power Control					RW	RW	RO	RO	Power control of a partition
Schedule									
Schedule Control					RW	RW	RO	RO	Specifies information for scheduled operations.
Schedule List					RW	RW	RO	RO	Sets the power-on and power-off schedule.
DVD Switch					RW	RW	RO	RO	
Console Redirection Switch					RW	RW	RO	RW	Specifies the output destination of console redirection for a partition.
Partition Configuration					RW	RO	RO	RO	Changes the partition configuration.
Split Configuration (only for the PRIMEQUEST 520A/520)									
SB Split					RW	RO	RO	RO	Sets splitting or merging of an SB.
IOU Split					RW	RO	RO	RO	Sets splitting or merging of an IO Unit or IOX.
Reserved SB Configuration					RW	RO	RO	RO	Specifies spare SBs.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
Partition#0									
Information					RO	RO	RO	RO	Displays the status and other kinds of information about the partition.
Boot Control					RW	RW	RO	RO	Boot control of the partition
ASR Control					RW	RO	RO	RO	Specifies the automatic restart conditions for the partition.
Console Redirection					RO	RO	RO	RO	Displays console output for the partition (input not allowed).
Mode					RW	RW	RO	RO	Sets a partition mode.
PSA					See Part IV, "PSA."				
Partition#1					Same as Partition#0				
Partition#2					Same as Partition#0				
Partition#3					Same as Partition#0				
User Administration									
User List					RW	N/A	N/A	N/A	Displays a list of registered user accounts, deletes these accounts, and is used to edit the accounts.
Change Password					RW	RW	RW	RW	Changes the password of the current user account.
Who					RO	RO	RO	RO	Displays the users connected to the MMB Web-UI.
Network Configuration									
Date/Time					RW	RO	RO	RO	Specifies the MMB date and time.
Network Interface					RW	RO	RO	RO	Specifies the IP address used to access the MMB, etc.
Management LAN Port Configuration					RW	N/A	N/A	N/A	Specifies the Port VLAN of the MMB HUB.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
	Network Protocols				RW	RO	RO	RO	Specifies the network protocols of the MMB.
	Refresh Rate				RW	RW	RW	RW	Specifies the refresh rate of an HTTP/HTTP page.
	SNMP Configuration				RW	N/A	N/A	N/A	This submenu is displayed only if [Enable] is set for SNMP in [Network Protocols].
	SNMP Community				RW	N/A	N/A	N/A	Specifies the SNMP community.
	SNMP Trap				RW	N/A	N/A	N/A	Specifies the trap transmission destination.
	SNMPv3 Configuration				RW	N/A	N/A	N/A	Specifies the engine ID and users unique to SNMP v3.
	SSL								
	Create CSR				RW	N/A	N/A	N/A	Creates private keys and CSRs.
	Export Key/CSR				RW	N/A	N/A	N/A	Exports private keys and CSRs.
	Import Certificate				RW	N/A	N/A	N/A	Installs a certificate.
	Create Selfsigned Certificate				RW	N/A	N/A	N/A	Creates a self-signed certificate.
	SSH								
	Create SSH Server Key				RW	N/A	N/A	N/A	Creates SSH server private keys.
	Remote Server Management				RW	N/A	N/A	N/A	Specifies the user configuration used to control the MMB using RMCP.
	Access Control				RW	N/A	N/A	N/A	Defines the IP filter to enable access.
	Alarm E-Mail				RW	N/A	N/A	N/A	Defines e-mail notification for events.
	License								
	Mirror License				RW	N/A	N/A	N/A	Registers a license to enable System Mirror.

Navigation Bar submenus					Privilege				Remarks
Level 1	Level 2	Level 3	Level 4	Level 5	Admin	Operator	User	CE	
				XPAR License (PRIMEQUEST 520A/520 only)	RW	N/A	N/A	N/A	Registers a license for splitting SBs, IO Units, and an IOX.
				Maintenance					
				Firmware Update					
				MMB Firmware Update	RW	N/A	N/A	RW	Updates MMB firmware.
				PAL/SAL Firmware Update	RW	N/A	N/A	RW	Uploads PAL/SAL firmware to the MMB.
				EFI Firmware Update	RW	N/A	N/A	RW	Used to select the partition for an update of the PAL/SAL/EFI firmware registered with the MMB.
				BMC Firmware Update	RW	N/A	N/A	RW	Updates the BMC firmware.
				Backup/Restore Configuration					Backup/Restore of setting values.
				Backup/Restore MMB Configuration	RW	N/A	N/A	RW	Backs up and restores MMB configuration information.
				Backup EFI Configuration	RW	N/A	N/A	RW	Backs up EFI configuration information.
				Restore EFI Configuration	RW	N/A	N/A	RW	Restores EFI configuration information.
				Maintenance Wizard	RW	N/A	N/A	RW	Wizard-based maintenance
				REMCS					
				REMCS	RW	N/A	N/A	RW	See Chapter 7, "REMCS" in the <i>PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information</i> (C122-E074EN).
				Detailed Setup	RW	N/A	N/A	RW	

5.2 System Menu

From the [System] menu, the status of PRIMEQUEST hardware components can be displayed and settings can be made for these components.

Note: If "Read Error" is displayed for [Part Number] or [Serial Number] in the MMB Web-UI window (content display frame and information frame), contact your Fujitsu certified service engineer.

Do not execute any operation for a partition, including [Reset] and [Force Power Off], while "Read Error" is displayed.

5.2.1 [System Status] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [System Status] window displays the status of the entire PRIMEQUEST-series machine.

Clicking the box containing a unit name in this window displays the detailed status view window for the unit.

Power Supply	Fans	Temperature
OK	OK	OK

SB#0	SB#1	SB#2	SB#3	SB#4	SB#5	SB#6	SB#7
OK	OK	OK	OK	OK	OK	OK	OK

IOU#0	IOU#1	IOU#2	IOU#3	IOU#4	IOU#5	IOU#6	IOU#7
OK	OK	OK	OK	OK	OK	OK	OK

XAI#0	XAI#1	XDI#0	XDI#1	XDI#2	XDI#3
OK	OK	OK	OK	OK	OK

CPCB	KVM	OP-Panel
OK	OK	OK

MMB#0	MMB#1	GSWB#0	GSWB#1
OK	OK	OK	OK


PCI_Box#0	PCI_Box#1	PCI_Box#2	PCI_Box#3	PCI_Box#4	PCI_Box#5	PCI_Box#6	PCI_Box#7
OK	Not-present	Not-present	Not-present	Not-present	Not-present	Not-present	Not-present

Figure 5.1 [System Status] window
(PRIMEQUEST 580A/540A/580/540/480/440)

This window displays the statuses of all devices in the PRIMEQUEST-series machine. The displayed status means the following:

OK: The device has no defect and it is operating normally.

Not-present: This unit is not installed. This status is grayed out.

Warning: The device has encountered an event that is not serious IO Units but will possibly develop into a problem. The accompanying icon is .

Failed: The device has failed and must be isolated. The accompanying icon is .


Degraded: The device contains a faulty component but can continue operating when the faulty component has been isolated. The accompanying icon is .

Table 5.3 Displayed items in the [System Status] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Power Supply	Status of power supply units in the PRIMEQUEST-series machine
Fans	Status of fans in the PRIMEQUEST-series machine
Temperature	Status of temperature sensors in the PRIMEQUEST-series machine
SB#0 to SB#7	Statuses of SB#0 to SB#7 in the PRIMEQUEST-series machine
IOU#0 to IOU#7	Statuses of IOU#0 to IOU#7 in the PRIMEQUEST-series machine
XAI#0, XAI#1	Statuses of XAI#0 and XAI#1 in the PRIMEQUEST-series machine
XDI#0 to XDI#3	Statuses of XDI#0 to XDI#3 in the PRIMEQUEST-series machine
CPCB	Status of the CPCB in the PRIMEQUEST-series machine
KVM	Status of the KVM board in the PRIMEQUEST-series machine
OP-Panel	Status of the operator panel in the PRIMEQUEST-series machine
MMB#0, MMB#1	Statuses of MMB#0 and MMB#1 in the PRIMEQUEST-series machine
GSWB#0, GSWB#1 or GTHB#0, GTHB#1	Statuses of GSWB#0, GSWB#1 or [GTHB#0], [GTHB#1] in the PRIMEQUEST-series machine.
PCI_Box#0 to PCI_Box#7	Statuses of PCI_Box#0 to PCI_Box#7 connected to the PRIMEQUEST-series machine

Table 5.4 Buttons in the [System Status] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Each box displaying the status of a unit	Click the box containing a unit name to display its detailed status view window. If the box of an uninstalled unit is clicked, its detailed status view window is not displayed.

(1) Menu operation

[System] → [System Status]

(2) GUI operation

- 1 To check the status of a device in detail, click the box containing its unit name.
A detailed status view window for the device is displayed.

Remarks: To display the detailed status of a unit, you can select the menu for the unit directly from the [System] submenu. For details on this operation, see [Section 5.2.9](#) to [Section 5.2.23](#).

5.2.2 [System Status] window (PRIMEQUEST 520A/520/420)

The [System Status] window displays the status of the entire PRIMEQUEST-series machine.

Clicking the box containing a unit name in this window displays the detailed status view window for the unit.

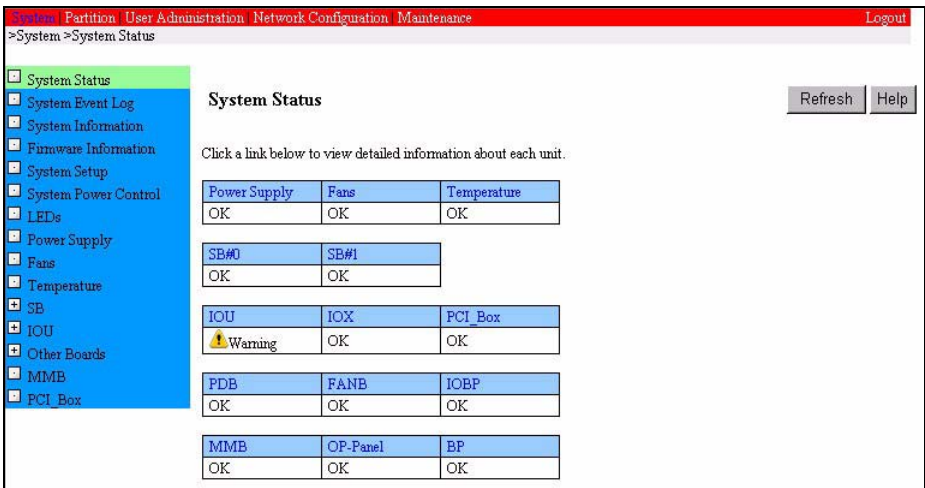


Figure 5.2 [System Status] window (PRIMEQUEST 520A/520/420)

This window displays the statuses of all devices in the PRIMEQUEST-series machine. The displayed status means the following:

- OK: The device has no defect and it is operating normally.
- Not-present: This unit is not installed. This status is grayed out.
- Warning: The device has encountered an event that is not serious IO Units but will possibly develop into a problem. The accompanying icon is .
- Failed: The device has failed and must be isolated. The accompanying icon is .
- Degraded: The device contains a faulty component but can continue operating when the faulty component has been isolated. The accompanying icon is .

Table 5.5 Displayed items in the [System Status] window
(PRIMEQUEST 520A/520/420)

Item	Description
Power Supply	Status of power supply units in the PRIMEQUEST-series machine
Fans	Status of fans in the PRIMEQUEST-series machine
Temperature	Status of temperature sensors in the PRIMEQUEST-series machine
SB#0, SB#1	Statuses of SB#0 and SB#1 in the PRIMEQUEST-series machine
IOU, IOX	Statuses of IO Unit and IOX in the PRIMEQUEST-series machine
PCI_Box	Statuses of PCI_Box connected to the PRIMEQUEST-series machine
PDB	Statuses of PDB in the PRIMEQUEST-series machine
FANBP	Statuses of FANBP in the PRIMEQUEST-series machine
IOBP	Statuses of IOBP in the PRIMEQUEST-series machine
MMB	Statuses of MMB in the PRIMEQUEST-series machine
OP-Panel	Status of the operator panel in the PRIMEQUEST-series machine
BP	Statuses of BP in the PRIMEQUEST-series machine

Table 5.6 Buttons in the [System Status] window
(PRIMEQUEST 520A/520/420)

Button	Description
Each box displaying the status of a unit	Click the box containing a unit name to display its detailed status view window. If the box of an uninstalled unit is clicked, its detailed status view window is not displayed.

(1) Menu operation

[System] → [System Status]

(2) GUI operation

- 1 To check the status of a device in detail, click the box containing its unit name.

A detailed status view window for the device is displayed.

Remarks: To display the detailed status of a unit, you can select the menu for the unit directly from the [System] submenu. For details on this operation, see [Section 5.2.9](#) to [Section 5.2.23](#).

5.2.3 [System Event Log] window

The [System Event Log] window displays events that occurred in the PRIMEQUEST-series machine and are stored in the system event log of the MMB.

More than 1,000 events can be stored in the system event log. When the system event log reaches the maximum number of entries, new events are saved in the system event log as the oldest events are deleted. Clicking the [Detail] button displays the detailed information on each event.

Note: In Windows Server 2008, the following system event log item is displayed for operating system startup or for dynamic SB addition (Hot-Add) or dynamic SB replacement (Hot-Replace) using the Dynamic Partitioning (DP) function, but it does not affect operation.

Severity: Info
Unit/Source/Event ID: Blank
Description: Binary character string

Severity	Date/Time	Unit	Source	Event ID	Description	Detail
Info	2005-12-14 14:36:52	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail
Info	2005-12-14 14:32:45	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail
Info	2005-12-14 14:28:35	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail
Info	2005-12-14 14:24:28	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail
Info	2005-12-14 14:20:07	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail
Info	2005-12-14 14:19:22	Partition#0	P#0 Sys Status	C06F01FF	Power On In Progress	Detail
Info	2005-12-14 11:43:09	Partition#0	P#0 Sys Status	C06F00FF	Power Off	Detail
Info	2005-12-14 11:42:21	Partition#0	P#0 Sys Status	C06F08FF	Power Off In Progress	Detail
Info	2005-12-14 11:40:27	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail
Info	2005-12-14 11:36:20	Partition#0	P#0 Sys Status	C06F02FF	Reset	Detail

Figure 5.3 [System Event Log] window

The title row in the table remains visible during scrolling, and only the table body is scrolled.

Table 5.7 Displayed items in the [System Event Log] window

Item	Description
Severity	Severity of an event or error: <ul style="list-style-type: none">• Error: Serious IO Units problem such as a hardware failure• Warning: Event that is not serious IO Units but will possibly develop into a problem• Info: Normal event such as partition power-on
Date/Time	Local date and time at which an event or error occurred. Format: yyyy-MM-dd HH:mm:ss
Unit	Unit with the sensor that detected an event or error. For example, "SB#0" is displayed for an error that occurred in CPU#A0 of SB#0. Clicking a displayed unit name displays the corresponding unit information window (whose information includes the part number and serial number of the unit).
Source	Name of the sensor that detected an event or error. Clicking a displayed sensor name displays the corresponding sensor status window or the unit information window of the unit containing the sensor.
Event ID	ID (eight-digit hexadecimal number) that identifies an event. For details on event ID assignment, see the <i>PRIMEQUEST 500A/500/400 Series Reference Manual: Messages/Logs</i> (C122-E004EN).
Description	Description of an event or error. If the event involves board insertion or removal, the part number and serial number of the board are displayed.

Table 5.8 Buttons in the [System Event Log] window

Button	Description
Clear All Events	Click the [Clear All Events] button to clear all of the events stored in the system event log. A confirmation dialog box opens for confirmation to clear the events.
Download	Click the [Download] button to download the event data stored in the system event log to the PC whose browser is displaying the Web-UI. The [Save File] dialog box opens before downloading begins. Specify the save destination directory and a file name.

Button	Description
Filter	Click the [Filter] button to open the [System Event Log Filtering Condition] window for entering filtering conditions. Enter filtering conditions, and click the [Apply] button. The [System Event Log] window is then displayed with the data that satisfies the entered filtering conditions.
Detail	Click the [Detail] button to display details on the selected event in the [System Event Log (Detail)] window.

(1) Menu operation

[System] → [System Event Log]

(2) GUI operation

- Clearing all of the events stored in the system event log
 - 1 Click the [Clear All Events] button.
A confirmation dialog box opens for confirmation to clear all of the events.
- Downloading the event data stored in the system event log
 - 1 Click the [Download] button.
A dialog box is displayed to allow you to enter a save file path. Download the event data to the PC that displays the Web-UI.
- Filtering the events displayed in the window
 - 1 Click the [Filter] button.
The [System Event Log Filtering Condition] window for entering filtering conditions opens.
 - 2 Enter filtering conditions in the [System Event Log Filtering Condition] window, and click the [Apply] button.
The [System Event Log] window is then displayed again, with only the events that satisfy the specified conditions.
- Displaying details on an event displayed in the window
 - 1 Click the applicable [Detail] button.
The [System Event Log (Detail)] window is displayed with details on the event.

5.2.3.1 [System Event Log Filtering Condition] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [System Event Log Filtering Condition] window can be used to identify events that occurred in the PRIMEQUEST-series machine. If conditions are entered in this window, the caller window displays the events that satisfy the entered conditions when it is redisplayed.

This filtering uses the AND operator for entered conditions.

System | Partition | Switch | User Administration | Network Configuration | Maintenance | Logout

>System >System Event Log

- System Status
- System Event Log
- System Information
- Firmware Information
- System Setup
- System Power Control
- LEDs
- Power Supply
- Fans
- Temperature
- SB
- IOU
- System Interconnect
- Other Boards
- MMB
- GSWB
- PCI_Box

System Event Log Filtering Condition

Help

Select the filtering conditions and click the Apply Button to take effect.
Note: The followings are AND conditions.

1)Severity: ☒ Error ☒ Warning ☒ Info

2)Partition: ☒ All
☐ Specified ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15

3)Unit: ☒ All
☐ Specified ☐ PSUs ☐ Fans ☐ SB#0 ☐ SB#1 ☐ SB#2 ☐ SB#3
☐ All SB(s) ☐ SB#4 ☐ SB#5 ☐ SB#6 ☐ SB#7
☐ All IOU(s) ☐ IOU#0 ☐ IOU#1 ☐ IOU#2 ☐ IOU#3
☐ XAI#0 ☐ XAI#1 ☐ IOU#4 ☐ IOU#5 ☐ IOU#6 ☐ IOU#7
☐ XDI#0 ☐ XDI#1 ☐ XDI#2 ☐ XDI#3
☐ CPCB ☐ KVM ☐ Panel
☐ MMB#0 ☐ MMB#1
☐ GSWB#0 ☐ GSWB#1 ☐ GTHB#0 ☐ GTHB#1
☐ All PCI_Box ☐ PCI_Box#0 ☐ PCI_Box#1 ☐ PCI_Box#2 ☐ PCI_Box#3
☐ PCI_Box#4 ☐ PCI_Box#5 ☐ PCI_Box#6 ☐ PCI_Box#7

4)Source: ☒ All
☐ Specified ☐ CPU ☐ DIMM ☐ Chipset
☐ Voltage ☐ Temperature ☐ Other

5)Sort by Date/Time: ☒ New event first ☐ Old event first

6)Start Date/Time: ☒ First event ☐ Specified Time 2005 - 1 - 1 0 : 0 : 0

7)End Date/Time: ☒ End event ☐ Specified Time 2005 - 1 - 1 0 : 0 : 0

8)Number of events to display: 100 /995

Apply Cancel Default Setting

Figure 5.4 [System Event Log Filtering Condition] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.9 Displayed and setting items in the [System Event Log Filtering Condition] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Severity	<p>Select the severities of the system events to be displayed for the system event log by checking the corresponding check boxes. More than one severity option can be selected.</p> <ul style="list-style-type: none"> • Error: Serious IO Units problem such as a hardware failure • Warning: Event that is not serious IO Units but will possibly develop into a problem • Info: Normal event such as partition power-on <p>By default, all of the options are selected.</p>
Partition	<p>Select partitions whose events are to be displayed by checking their check boxes.</p> <p>Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables filtering of partitions. Selecting [Specified] enables checking of check boxes, so partitions can be selected. The default setting is [All].</p>
Unit	<p>Select units whose events are to be displayed.</p> <p>Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables filtering of units. Selecting [Specified] enables filtering of units and checking of check boxes, so units can be selected. The default setting is [All].</p>
Source	<p>Select the sensors (e.g., CPU, DIMM) used to display the sources of any events and errors that occur.</p> <p>Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables filtering of sources. Selecting [Specified] enables filtering and checking of check boxes, so the sources can be selected. The default setting is [All].</p>
Sort by Date/Time	<p>Specify the order for displaying events, from new events to old events or vice versa, by clicking a radio button.</p> <p>The default setting is [New event first].</p>
Start Date/Time	<p>Specify a time range for the event logs to be displayed.</p> <p>Select either [First event] or [Specified time] as the start time by clicking a radio button. If [Specified time] is selected, the start time can be entered.</p> <p>The default setting is [First event].</p>
End Date/Time	<p>Specify a time range for the event logs to be displayed.</p> <p>Select either [End event] or [Specified time] as the end time by clicking a radio button. If [Specified time] is selected, the end time can be entered.</p> <p>The default setting is [End event].</p>

Item	Description
Number of events to display	Specify the number of events to be displayed for the log. The default setting is 100. The denominator indicates the number of events stored in the log.

Table 5.10 Buttons in the [System Event Log Filtering Condition] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Apply	Specify conditions such as [Severity], [Partition], and [Unit], and click the [Apply] button. The specified filtering conditions are then set, and the [System Event Log] window is displayed again. The window displays events that satisfy the filtering conditions.
Cancel	Click the [Cancel] button to return to the [System Event Log] window. The events displayed in the window remain the same.
Default Setting	Click the [Default Setting] button to reset all items in this window to their default values.

(1) Menu operation

[System] → [System Event Log] → [Filter] button

(2) GUI operation

- To display the [System Event Log] window in specified filtering conditions:
 - 1 Specify conditions and click the [Apply] button.
The [System Event Log] window reappears. It displays a list of messages limited to those which fulfill the specified conditions. If no message that fulfills the conditions exists, the window displays its title and a message stating that there is no log to be displayed.
- To return to the [System Event Log] window:
 - 1 Click the [Cancel] button. The specified conditions are canceled and the [System Event Log] window reappears.
- To return the selected values to the default values:
 - 1 Click the [Default Setting] button. The conditions selected for all parameters are cleared and the parameters revert to their default values.

5.2.3.2 [System Event Log Filtering Condition] window (PRIMEQUEST 520A/520/420)

The [System Event Log Filtering Condition] window can be used to identify events that occurred in the PRIMEQUEST-series machine. If conditions are entered in this window, the caller window displays the events that satisfy the entered conditions when it is redisplayed.

This filtering uses the AND operator for entered conditions.

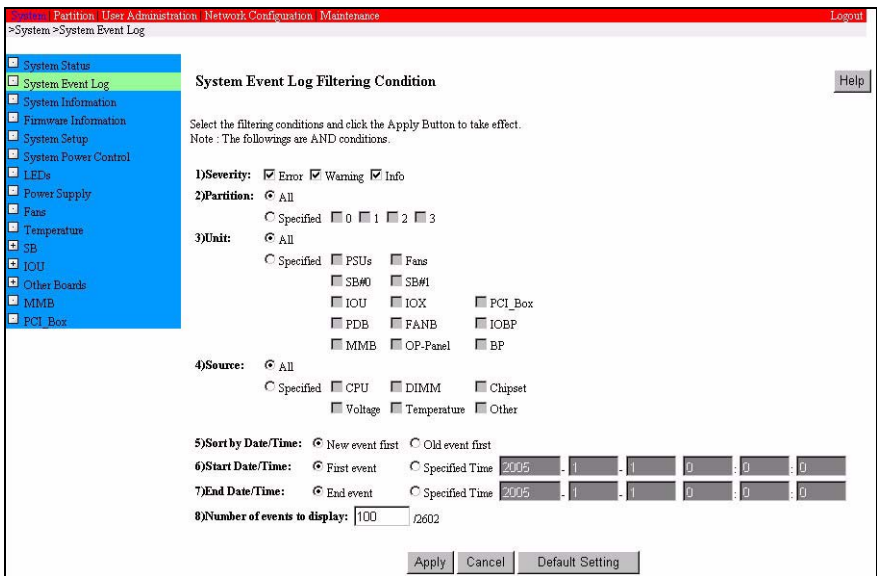


Figure 5.5 [System Event Log Filtering Condition] window (PRIMEQUEST 520A/520/420)

Table 5.11 Displayed and setting items in the [System Event Log Filtering Condition] window (PRIMEQUEST 520A/520/420)

Item	Description
Severity	Select the severities of the system events to be displayed for the system event log by checking the corresponding check boxes. More than one severity option can be selected. <ul style="list-style-type: none">• Error: Serious IO Units problem such as a hardware failure• Warning: Event that is not serious IO Units but will possibly develop into a problem• Info: Normal event such as partition power-on By default, all of the options are selected.
Partition	Select partitions whose events are to be displayed by checking their check boxes. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables filtering of partitions. Selecting [Specified] enables checking of check boxes, so partitions can be selected. The default setting is [All].
Unit	Select units whose events are to be displayed. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables filtering of units. Selecting [Specified] enables filtering of units and checking of check boxes, so units can be selected. The default setting is [All].
Source	Select the sensors (e.g., CPU, DIMM) used to display the sources of any events and errors that occur. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables filtering of sources. Selecting [Specified] enables filtering and checking of check boxes, so the sources can be selected. The default setting is [All].
Sort by Date/Time	Specify the order for displaying events, from new events to old events or vice versa, by clicking a radio button. The default setting is [New event first].
Start Date/Time	Specify a time range for the event logs to be displayed. Select either [First event] or [Specified time] as the start time by clicking a radio button. If [Specified time] is selected, the start time can be entered. The default setting is [First event].
End Date/Time	Specify a time range for the event logs to be displayed. Select either [End event] or [Specified time] as the end time by clicking a radio button. If [Specified time] is selected, the end time can be entered. The default setting is [End event].

Item	Description
Number of events to display	Specify the number of events to be displayed for the log. The default setting is 100. The denominator indicates the number of events stored in the log.

Table 5.12 Buttons in the [System Event Log Filtering Condition] window (PRIMEQUEST 520A/520/420)

Button	Description
Apply	Specify conditions such as [Severity], [Partition], and [Unit], and click the [Apply] button. The specified filtering conditions are then set, and the [System Event Log] window is displayed again. The window displays events that satisfy the filtering conditions.
Cancel	Click the [Cancel] button to return to the [System Event Log] window. The events displayed in the window remain the same.
Default Setting	Click the [Default Setting] button to reset all items in this window to their default values.

(1) Menu operation

[System] → [System Event Log] → [Filter] button

(2) GUI operation

- To display the [System Event Log] window in specified filtering conditions:
 - 1 Specify conditions and click the [Apply] button.
The [System Event Log] window reappears. It displays a list of messages limited to those which fulfill the specified conditions. If no message that fulfills the conditions exists, the window displays its title and a message stating that there is no log to be displayed.
- To return to the [System Event Log] window:
 - 1 Click the [Cancel] button. The specified conditions are canceled and the [System Event Log] window reappears.
- To return the selected values to the default values:
 - 1 Click the [Default Setting] button. The conditions selected for all parameters are cleared and the parameters revert to their default values.

5.2.3.3 [System Event Log (Detail)] window

The [System Event Log (Detail)] window displays detailed information on an event displayed in the [System Event Log] window.

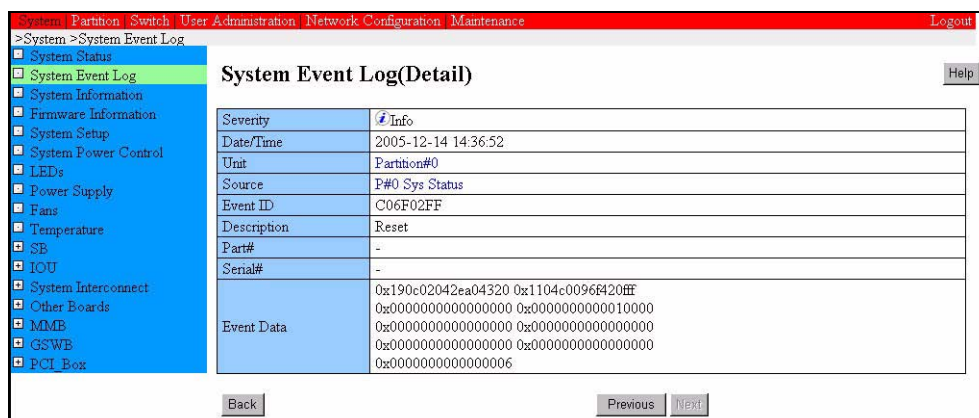


Figure 5.6 [System Event Log (Detail)] window

Table 5.13 Displayed items in the [System Event Log (Detail)] window

Item	Description
Severity	Severity of the event or error: <ul style="list-style-type: none"> Error: Serious IO Units problem such as a hardware failure Warning: Event that is not serious IO Units but will possibly develop into a problem Info: Normal event such as partition power-on
Date/Time	Local date and time at which the event or error occurred. Format: yyyy-MM-dd HH:mm:ss
Unit	Unit with the sensor that detected the event or error. For example, "SB#0" is displayed for an error that occurred in CPU#A0 of SB#0. Clicking the displayed unit name displays the corresponding unit information window (whose information includes the part number and serial number of the unit).
Source	Name of the sensor that detected the event or error. Clicking a displayed sensor name displays the corresponding sensor status window or the unit information window of the unit containing the sensor.
Event ID	ID (eight-digit hexadecimal number) that identifies the event. For details on ID assignment, see the <i>PRIMEQUEST 500A/500/400 Series Reference Manual: Messages/Logs</i> . (C122-E004EN)

Item	Description
Description	Description of the event or error. If the event involves board insertion or removal, the part number and serial number of the board are displayed.
Part Number	Part number of the source or unit where the event occurred
Serial Number	Serial number of the source or unit where the event occurred
Event Data	Event data in hexadecimal notation

Table 5.14 Buttons in the [System Event Log (Detail)] window

Button	Description
Back	Redisplays the [System Event Log] window.
Prev	Displays detailed information on the previous IO Units event according to the display order in the [System Event Log] window.
Next	Displays detailed information on the next event according to the display order in the [System Event Log] window.

(1) Menu operation

[System] → [System Event Log] → [Detail] on each log

(2) GUI operation

- Returning to the [System Event Log] window
 - 1 Click the [Back] button.
The [System Event Log] window is displayed again.
- Displaying detailed information on the previous IO Units event
 - 1 Click the [Prev] button.
The window displays detailed information on the previous IO Units event according to the display order in the [System Event Log] window.
- Displaying detailed information on the next event
 - 1 Click the [Next] button.
The window displays detailed information on the next event according to the display order in the [System Event Log] window.

5.2.4 [System Information] window

The [System Information] window displays information about the PRIMEQUEST-series machine, such as the system name, product name.

The PRIMEQUEST-series machine (cabinet) name and the asset tag (asset management number) can be specified from this window. The name specified here is also used in [System Name] for communication using SNMP.

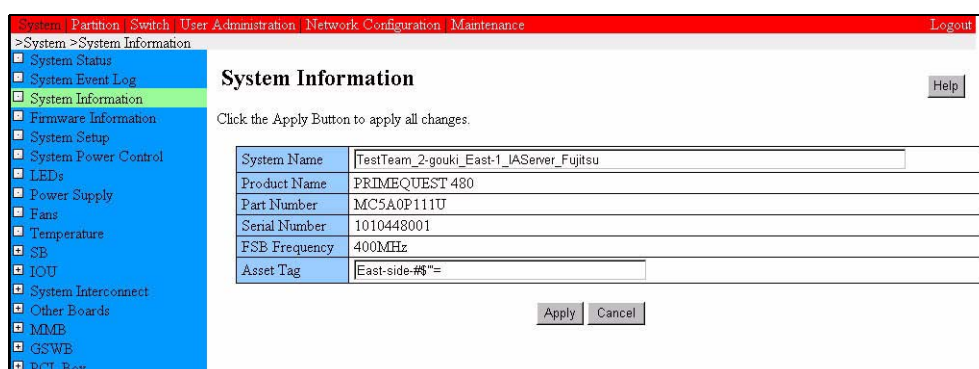


Figure 5.7 [System Information] window

Table 5.15 Displayed and setting items in the [System Information] window

Item	Description
System Name	<p>System name.</p> <p>A user with the Admin privilege can change the system name to a name consisting of up to 64 characters. This system name is also used as an SNMP system name.</p> <p>Remarks: Any of the following characters can be used: [0-9], [a-z], [A-Z], " "(en-size space), !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ .</p> <p>However, the following restrictions apply:</p> <ul style="list-style-type: none"> - The following characters cannot be used at the beginning of a string: # (en-size space) - The following character cannot be used at the end of the string: (en-size space) <p>This system name is also used as the SNMP system name. The system name set here is displayed in the [SNMP Configuration] window but cannot be changed in the [SNMP Configuration] window.</p> <p>The default name is <PRIMEQUEST + serial_number>.</p>

Item	Description
Product Name	Product name
Part Number	Part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	Serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
FSB Frequency	Frequency.
Asset Tag	Asset management information (Asset Tag). A user with Administrator privilege can change asset management information. Up to 32 byte characters can be entered. You can use the following characters for system names: 0-9, a-z, A-Z, - (hyphen), _ (underscore), and en-size space. However, the first character must be one of a-z and A-Z.

Table 5.16 Buttons in the [System Information] window

Button	Description
Apply	Sets the values entered in [System Name] and [Asset Tag].
Cancel	Reverts to the original settings in [System Name] and [Asset Tag].

(1) Menu operation

[System] → [System Information]

(2) GUI operation

- 1 Change the values in [System Name] and [Asset Tag], and click the [Apply] button.
The entered values are then set.

5.2.5 [Firmware Information] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [Firmware Information] window displays version information on firmware running on the system.

Unit	Firmware	Version
SB#0	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.11 / 1.11
SB#1	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.11 / 1.11
SB#2	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.11 / 1.11
SB#3	PAL_A/PAL_B	-
	SAL_A/SAL_B	-
SB#4	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.09 / 1.09
SB#5	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.11 / 1.11
SB#6	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.11 / 1.11
SB#7	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.11 / 1.11
IOU#0	BMM#0	BMC
		EFI
		1.10.1.8
	BMM#1	BMC
		1.21
		EFI
		-

Figure 5.8 [Firmware Information] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.17 Displayed items in the [Firmware Information] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Unit	Units with installed firmware: <ul style="list-style-type: none"> • SB#0 to SB#7 • IOU#0 BMM#0/BMM#1 to IOU#7 BMM#0/BMM#1 • MMB#0 and MMB#1 • GSWB#0 and GSWB#1
Firmware	Firmware type
Version	Firmware version. "-" is displayed for an unknown version.

(1) Menu operation

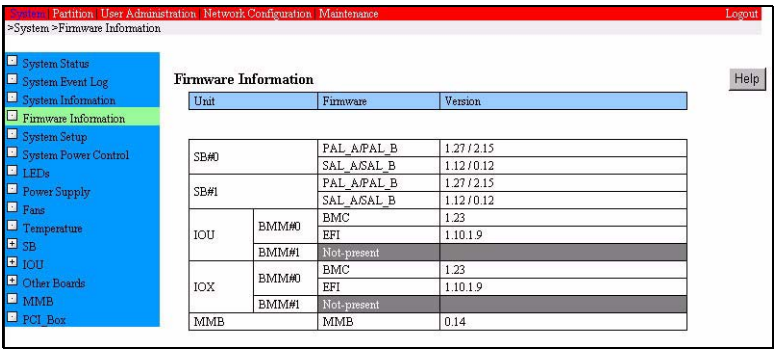
[System] → [Firmware Information]

(2) GUI operation

None

5.2.6 [Firmware Information] window (PRIMEQUEST 520A/520/420)

The [Firmware Information] window displays version information on firmware running on the system.



Unit	Firmware	Version
SB#0	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.12 / 0.12
SB#1	PAL_A/PAL_B	1.27 / 2.15
	SAL_A/SAL_B	1.12 / 0.12
IOU	BMM#0	BMC 1.23
	BMM#1	EFI 1.10.1.9
IOX	BMM#0	BMC 1.23
	BMM#1	EFI 1.10.1.9
MMB	MMB	0.14

Figure 5.9 [Firmware Information] window (PRIMEQUEST 520A/520/420)

Table 5.18 Displayed items in the [Firmware Information] window (PRIMEQUEST 520A/520/420)

Item	Description
Unit	Units with installed firmware: <ul style="list-style-type: none">• SB#0, SB#1• IOU BMM#0/BMM#1 to IOX BMM#0/BMM#1• MMB
Firmware	Firmware type
Version	Firmware version. "-" is displayed for an unknown version.

(1) Menu operation

[System] → [Firmware Information]

(2) GUI operation

None

5.2.7 [System Setup] window

The [System Setup] window allows you to specify PRIMEQUEST Power Feed mode settings and Power Restore actions.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

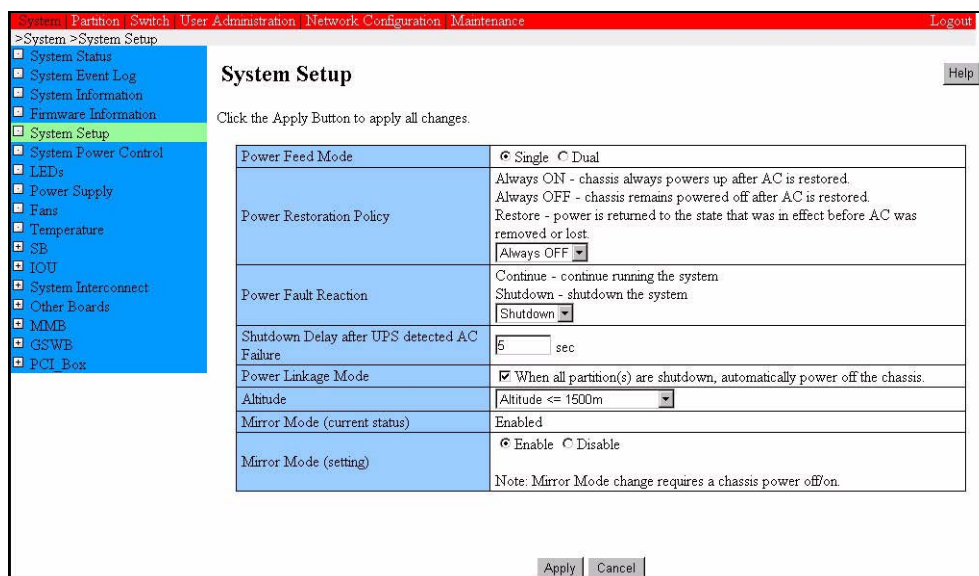


Figure 5.10 [System Setup] window

Table 5.19 Displayed and setting items in the [System Setup] window

Item	Description
Power Feed Mode	The user can set either single power feed mode or dual power feed mode for the power supply to the PRIMEQUEST-series machine: <ul style="list-style-type: none"> • Single: Single power feed mode • Dual: Dual power feed mode The default setting is [Single].
Power Restoration Policy	The user can specify the action taken for power recovery in the event of a power failure, and this setting is displayed: <ul style="list-style-type: none"> • Always off: Keeps power off after power recovery. • Always on: Turns power on after power recovery regardless of the status at the time of the power failure. • Restore: Restores the status at the time of the power failure. That is, if power was on at the time of the power failure, power is turned on, and if power was off, power is kept off. The default setting is [Restore].

Item	Description
Power Fault Reaction	<p>The user can specify the action taken in the event of lost redundancy, and this setting is displayed:</p> <ul style="list-style-type: none"> • continue: Keeps servers operating continuously when redundancy is lost. • shutdown: Shuts down the servers when redundancy is lost. <p>The default value is [continue].</p>
Shutdown Delay after UPS detected AC Failure	<p>The user can specify the grace period from UPS detection of a power failure until the start of an OS shutdown.</p> <p>If power recovery is completed within this time, the OS shutdown does not start.</p> <p>The setting range is 0 to 9999 seconds.</p> <p>The default setting is 5 seconds.</p>
Power Linkage Mode (PRIMEQUEST 580A/540A/580/540/480/440 only)	<p>If this check box is checked, when all partitions are shut down, the power to the cabinet and the GSWB or GTHB is turned off at the same time. If the check box is unchecked, the cabinet and the GSWB or GTHB remain on when all partitions are shut down. By default, the check box is checked (the cabinet and the GSWB are switched off in synchronization with the shutdown of all partitions).</p>
Altitude	<p>The user can specify the altitude of the PRIMEQUEST-series machine installation location.</p> <ul style="list-style-type: none"> • Altitude \leq 1500 m • 1500 m < Altitude \leq 2000 m • 2000 m < Altitude \leq 2500 m • 2500 m < Altitude <p>The default setting is Altitude \leq 1500 meters.</p> <p>Remarks: Setting an altitude enables precise detection of abnormal intake temperatures.</p>
Mirror Mode (current status)	<p>Indicates the Mirror Mode status that is currently in effect on the system.</p> <ul style="list-style-type: none"> • Enabled: The system is in Mirror Mode. • Disabled: The system is not in Mirror Mode. <p>The default status is [Enabled].</p>
Mirror Mode (setting)	<p>The user can specify whether to enable or disable mirror mode for the system.</p> <ul style="list-style-type: none"> • Enable • Disable

Table 5.20 Buttons in the [System Setup] window

Button	Description
Apply	Specify [Power Feed Mode], [Power Restore Policy], and other items, and click the [Apply] button to set the specified values.
Cancel	When you click the [Cancel] button, modifications or additions to items are not made effective, but the items are returned to their previous state.

(1) Menu operation

[System] → [System Setup]

(2) GUI operation

- 1 Specify [Power Feed Mode], [Power Restoration Policy], and other items in this window, and click the [Apply] button.

Then, the specified values are made effective.

Note: When the "Mirror Mode" setting is changed in the [System Setup] window, clicking the [Apply] button with the power supplied to the cabinet displays the dialog box with a warning.

To change the type of Mirror Mode, the cabinet power must be turned off.

5.2.8 [System Power Control] window

The [System Power Control] window enables power control of the entire PRIMEQUEST system.

Note:

- Be sure to use the OS shutdown function to turn off power to any partition in which Windows is installed.
In an emergency, such as no response from the system, use MMB Power-Off (Force Power Off) to turn off power.
- If the situation described below arises, contact your Fujitsu certified service engineer. Do not execute [Reset] and [Force Power Off] for the partition until the partition has been recovered from the failure.
[Power off], [Reset], or [Force Power Off] is executed for a partition or a shutdown is executed from the operating system, and the operation is not completed even after a long time has elapsed. Furthermore, an attempt to display the status of each component in the MMB Web-UI window causes "Read Error" to be displayed for [Part Number] or [Serial Number].

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

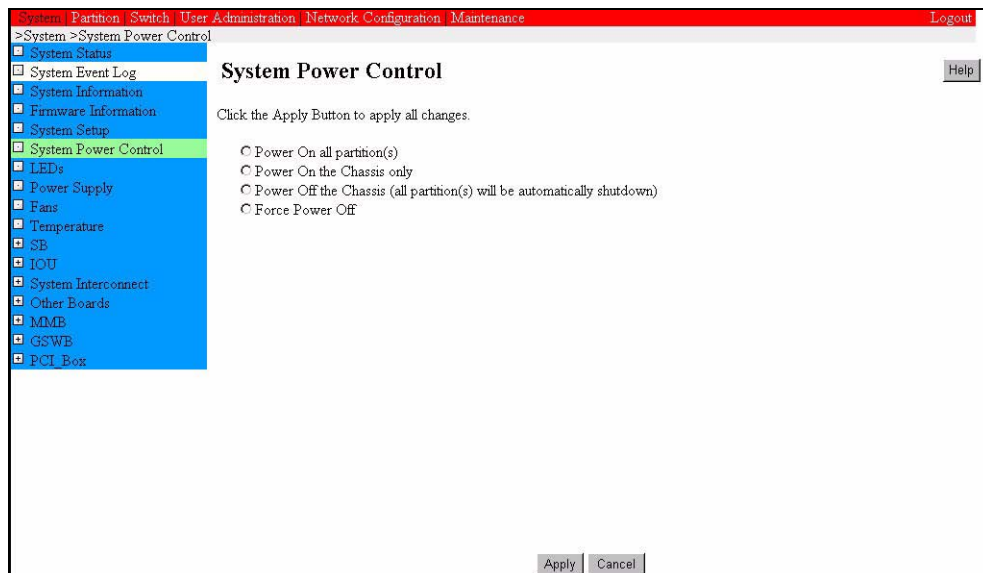


Figure 5.11 [System Power Control] window

Table 5.21 Displayed and setting items in the [System Power Control] window

Item	Description
Power On - all partition(s)	Power control of the PRIMEQUEST-series machine: Powers on all partitions. If this option is selected and power to only the cabinet is turned on, the partitions are powered on at the same time.
Power On the Chassis only (PRIMEQUEST 580A/540A/580/ 540/480/440 only)	Powers on sections other than SBs and IO Units. The GSWB or GTHB is also powered on.
Power Off the Chassis (all partition(s) will be automatically shutdown.)	Shuts down all partitions when the cabinet is powered off. A confirmation dialog box opens before the shutdown operation.
Force Power Off	Powers off partitions without shutting down the OSs running in them. A confirmation dialog box opens before the power-off operation.

Table 5.22 Buttons in the [System Power Control] window

Button	Description
Apply	Select a control option by clicking a radio button, and click the [Apply] button. Power supply is controlled based on the selected option.
Cancel	Click the [Cancel] button to revert to the original setting for power supply control.

(1) Menu operation

[System] → [System Power Control]

(2) GUI operation

- 1 Select a power control option by clicking a radio button and click the [Apply] button.
Power supply is controlled based on the selected option.

Remarks: If [Power Off the Chassis (all partition(s) will be automatically shutdown.)] or [Force Power Off] is selected, a confirmation dialog box opens.

5.2.9 [LEDs] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [LEDs] window displays LEDs statuses in the system.

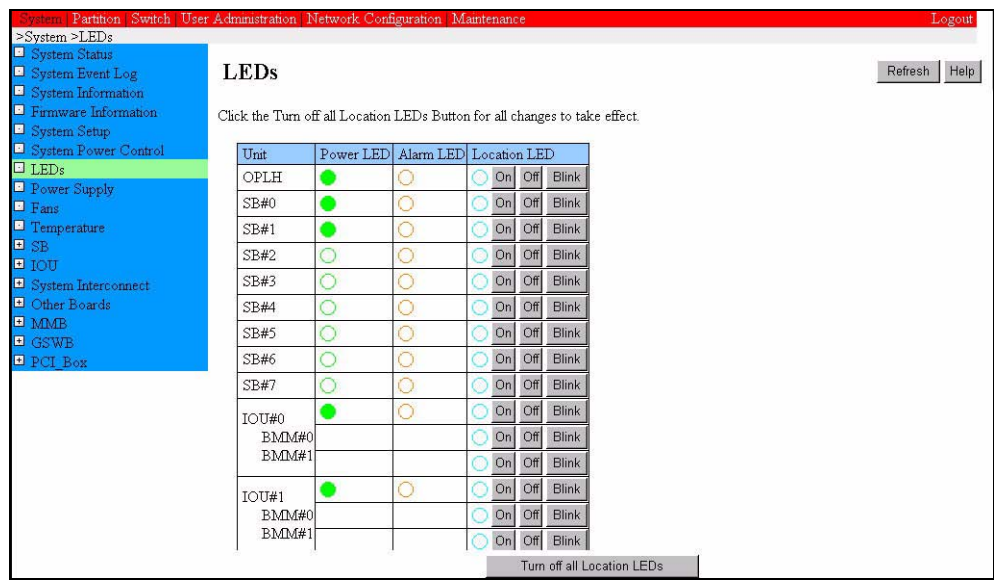


Figure 5.12 [LEDs] window (PRIMEQUEST 580A/540A/580/540/480/440)

"Not present" is displayed for an uninstalled device on a line that is grayed out.

Table 5.23 Displayed and setting items in the [LEDs] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Unit	Unit name.
Power LED	Power status
Alarm LED	Indication of whether the unit operating normally or abnormally
Location LED	Used to indicate the location or status of the unit corresponding to the LED

Table 5.24 Button in the [LEDs] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Turn off all Location LEDs	Click the [Turn off all Location LEDs] button to turn off all location LEDs of the system.

(1) Menu operation

[System] → [LEDs]

(2) GUI operation

- 1 Click the [Turn off all Location LEDs] button.
All location LEDs in the system are turned off.

5.2.10 [LEDs] window (PRIMEQUEST 520A/520/420)

The [LEDs] window displays LEDs statuses in the system.

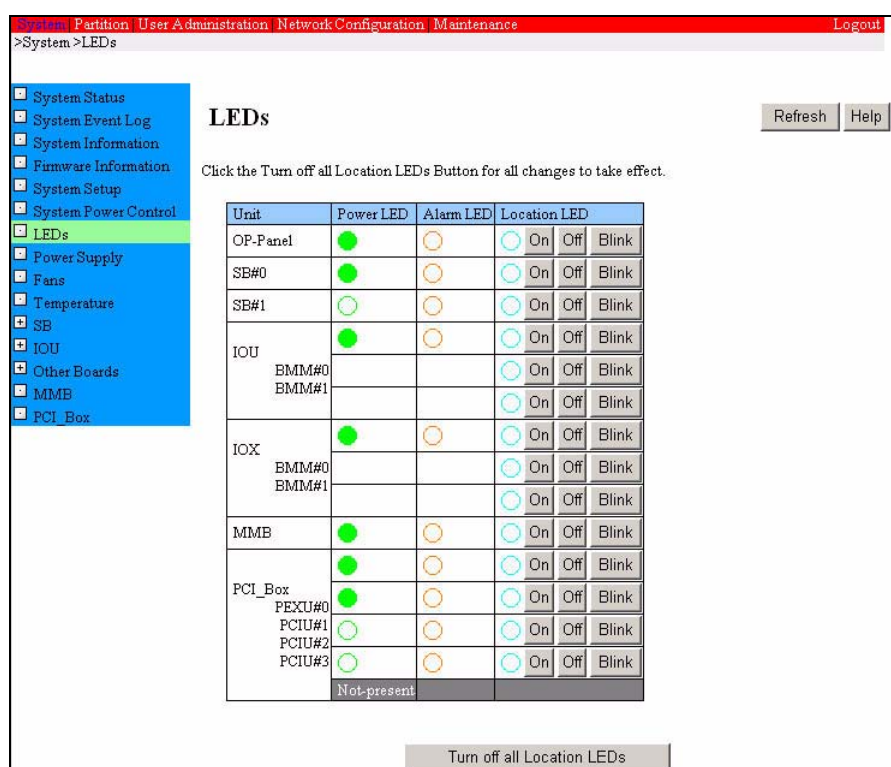


Figure 5.13 [LEDs] window (PRIMEQUEST 520A/520/420)

"Not present" is displayed for an uninstalled device on a line that is grayed out.

Table 5.25 Displayed and setting items in the [LEDs] window (PRIMEQUEST 520A/520/420)

Item	Description
Unit	Unit name.
Power LED	Power status
Alarm LED	Indication of whether the unit operating normally or abnormally
Location LED	Used to indicate the location or status of the unit corresponding to the LED

Table 5.26 Button in the [LEDs] window (PRIMEQUEST 520A/520/420)

Button	Description
Turn off all Location LEDs	Click the [Turn off all Location LEDs] button to turn off all location LEDs of the system.

(1) Menu operation

[System] → [LEDs]

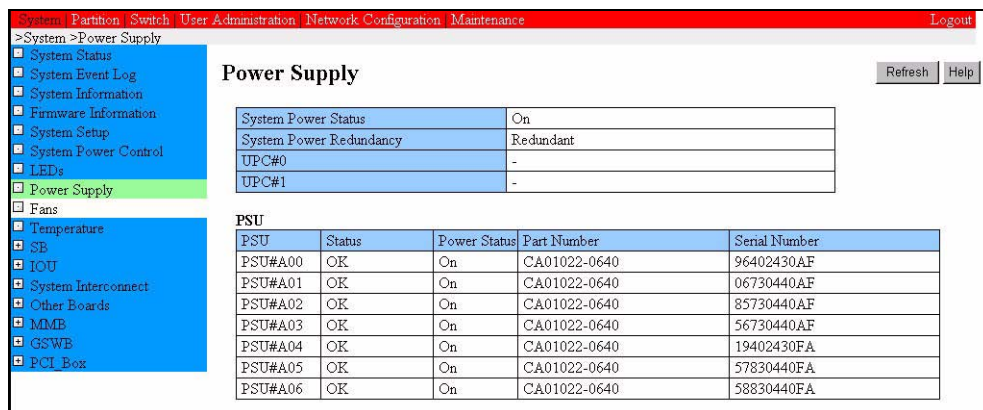
(2) GUI operation

- 1 Click the [Turn off all Location LEDs] button.
All location LEDs in the system are turned off.

5.2.11 [Power Supply] window

The [Power Supply] window displays power supply unit statuses in the PRIMEQUEST-series machine.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.



System Power Status		On
System Power Redundancy	Redundant	
UPC#0	-	
UPC#1	-	

PSU	Status	Power Status	Part Number	Serial Number
PSU#A00	OK	On	CA01022-0640	96402430AF
PSU#A01	OK	On	CA01022-0640	06730440AF
PSU#A02	OK	On	CA01022-0640	85730440AF
PSU#A03	OK	On	CA01022-0640	56730440AF
PSU#A04	OK	On	CA01022-0640	19402430FA
PSU#A05	OK	On	CA01022-0640	57830440FA
PSU#A06	OK	On	CA01022-0640	58830440FA

Figure 5.14 [Power Supply] window

Table 5.27 Displayed items in the [Power Supply] window

Item	Description
System Power Status	Power status of the PRIMEQUEST-series machine (cabinet): <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
System Power Redundancy	Redundancy status of power supply units: <ul style="list-style-type: none">• Redundant: PSU redundancy is maintained.• [Non-redundant: Sufficient Resources]: PSU redundancy is lost, but there are enough PSUs to continue system operation.• [Non-redundant: Insufficient Resources]: PSU redundancy is lost, and there are not enough PSUs to continue system operation.
UPC#x	UPS status detected by the UPC interface: <ul style="list-style-type: none">• AC Lost: Power is off.• Battery Lost: The battery has been depleted.• Failed: The system has failed.• -: Normal status or the UPS is not connected.

PSU

PSU	PSU number
Status	PSU status: <ul style="list-style-type: none">• OK: Operating normally• Not-present: Not installed• Failed: Failure• Predictive Fail: Expecting a failure.• A/C Lost: Power failure
Power Status	Indication of whether PSU power is On or Off
Part Number	PSU part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	PSU serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

(1) Menu operation

[System] → [Power Supply]

(2) GUI operation

None

5.2.12 [Fans] window

The [Fans] window displays fan statuses in the PRIMEQUEST-series machine, and the fan statuses can be cleared using this window.

The temperatures at the air intake and exhaust temperature sensors and at the CPU temperature sensor are displayed.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

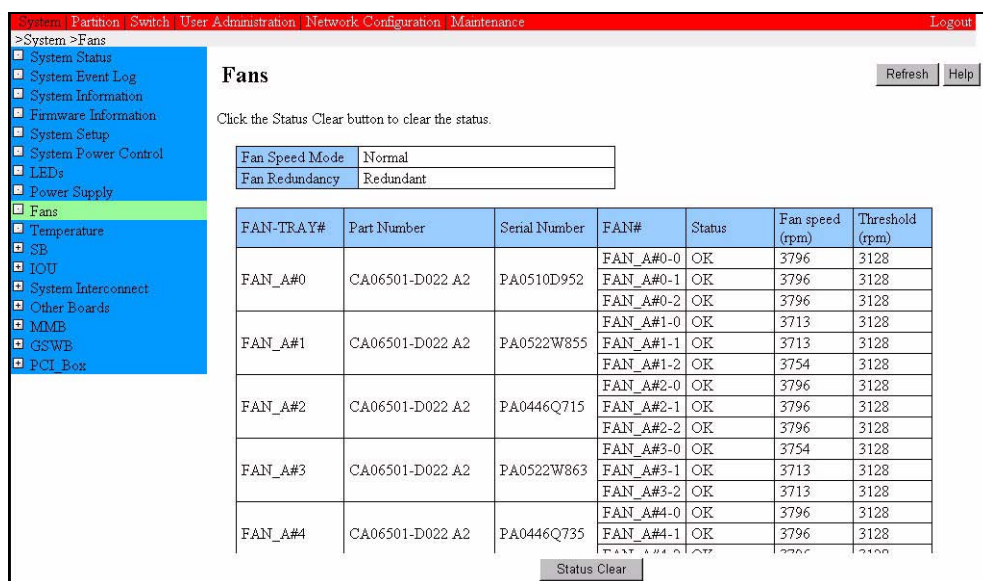


Figure 5.15 [Fans] window

Table 5.28 Displayed items in the [Fans] window

Item	Description
Fan Speed Mode	<p>Fan speed mode:</p> <ul style="list-style-type: none"> • Normal: Normal rotational speed • High-speed: High rotational speed (The fan entered high-speed mode because of an abnormal temperature or lost redundancy.)
Fan Redundancy	<p>Fan redundancy status:</p> <ul style="list-style-type: none"> • Redundant: Fan redundancy is maintained. • Non-redundant: Sufficient Resource Fan redundancy is lost, but there are enough fans to continue system operation. • Non-redundant:Insufficient Resources: Fan redundancy is lost, and there are not enough fans to continue system operation.

Item	Description
FAN-TRAY# (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Fan tray number
Part Number	Fan tray part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	Fan tray serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
FAN#	Fan number
Status	Fan status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Failed: Fan failure
Fan Speed(rpm)	Fan speed (rpm).
Threshold(rpm)	Lower limit of the fan speed (Any speed lower than this setting is abnormal.)

Table 5.29 Button in the [Fans] window

Button	Description
Status Clear	Click the [Status Clear] button to display the [Fans Status Clear] window. This window enables clearing of the fan statuses.

(1) Menu operation

[System] → [Fans]

(2) GUI operation

- 1 Click the [Status Clear] button.
The [Fans Status Clear] window is displayed.
- 2 Follow the clearing process in the [Fans Status Clear] window.
The fan statuses are cleared.

5.2.12.1 [Fans Status Clear] window

Once an abnormality is detected in a fan, the fan remains in the abnormal status until the fan is replaced or the abnormal status is cleared.

The abnormal status of a fan can be cleared using the [Fans Status Clear] window.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- After the abnormal status of a fan is cleared, if an abnormal fan speed is detected in the fan, the fan is placed in the [Failed] status again. Clearing the status of a fan with an abnormal fan speed does not change its status from [Failed].



Figure 5.16 [Fans Status Clear] window

Normal fans are grayed out and cannot be selected.

Table 5.30 Displayed and setting items in the [Fans Status Clear] window

Item	Description
FAN-TRAY# (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Fan tray number
Part Number (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Fan tray part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Fan tray serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
FAN#	Fan number
Status	Fan status: <ul style="list-style-type: none">• OK: Operating normally• Not-present: Not installed• Failed: Fan failure
Status Clear	To clear the status of a fan, select it.

Table 5.31 Buttons in the [Fans Status Clear] window

Button	Description
Apply	To clear the status of a fan, select the fan, and click the [Apply] button. The abnormal status of the selected fan is then cleared.
Cancel	Click the [Cancel] button to not change information and not clear the abnormal status of a fan.

(1) Menu operation

[System] → [Fans] → [Status Clear] button

(2) GUI operation

- 1 To clear the status of a fan, select the fan by checking its [Status Clear] check box, and click the [Apply] button.
The fan status is then cleared.

5.2.13 [Temperature] window

The [Temperature] window displays readings from temperature sensors in the PRIMEQUEST-series machine.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

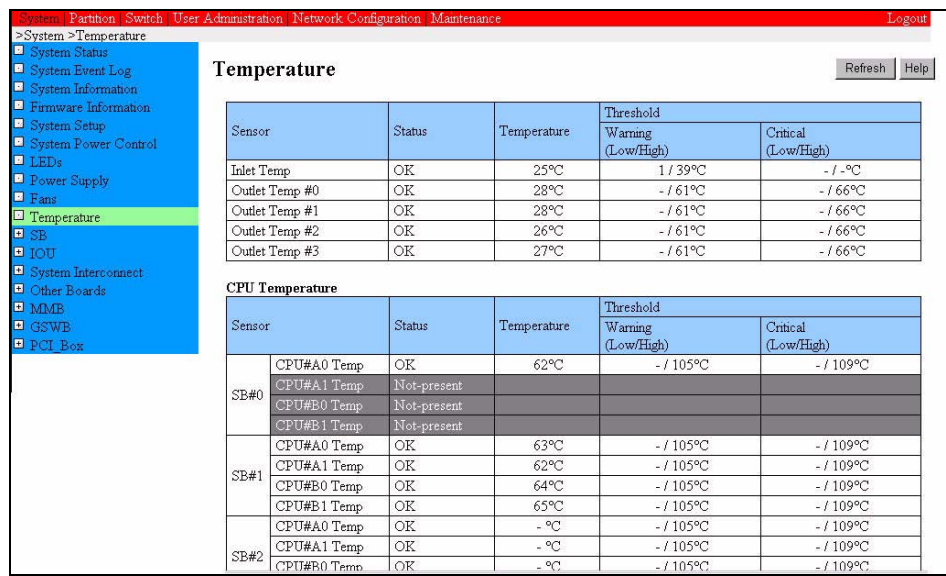


Figure 5.17 [Temperature] window

Table 5.32 Displayed items in the [Temperature] window

Item		Description
Sensor		Temperature sensor name.
Status		Temperature sensor status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Warning: Warning status• Critical: Critical status
Temperature		Temperature sensor reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-status temperature stored in a temperature sensor
	Critical (Low/High)	Lower and upper limits of the critical-status temperature stored in a temperature sensor

(1) Menu operation

[System] → [Temperature]

(2) GUI operation

None

5.2.14 SB menu

The [SB] menu consists of the following menus for the respective SB units:

- PRIMEQUEST 580A/540A/580/540/480/440
[SB#0] to [SB#7]
- PRIMEQUEST 520A/520/420
[SB#0], [SB#1]

The menu for SBs that have not been mounted are not displayed.

This section describes these menus collectively as [SB#x] because they share the same window format and operating methods.

5.2.14.1 [SB#x] window

The [SB#x] window displays the SB#x unit status. Also, the unit settings can be changed from this window.

System Partition User Administration Network Configuration Maintenance Logout
>System>SB>SB#0

SB#0 Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK	A	OK	B	OK
Power Status	Standby				
Split Mode	Enabled				
Part Number	CA06501-D403 F4				
Serial Number	PF06445628				
Location LED	Off On Off Blink				

CPUs

Split	CPU#	Status	Model	Stepping	Serial Number	FPOD
A	A0	OK	Dual-Core Intel® Itanium® Processor 9050	C1	B11915AE660A0200	OK
	A1	Not-present				
B	B0	OK	Dual-Core Intel® Itanium® Processor 9050	C1	6637E25CC8E20300	OK
	B1	Not-present				

DIMMs

Split	DIMM#	Status	Size	Rank	Data Rate	Part Number	Serial Number
A	0A0	Unknown					
	0A1	Unknown					
	0B0	Unknown					
	0B1	Unknown					
	1A0	Unknown					
	1A1	Unknown					
	1B0	Unknown					
	1B1	Unknown					
	2A0	Unknown					
	2A1	Unknown					
	2B0	Unknown					
	2B1	Unknown					
	3A0	Unknown					
	3A1	Unknown					
	3B0	Unknown					
	3B1	Unknown					
B	0C0	Unknown					
	0C1	Unknown					
	0D0	Unknown					
	0D1	Unknown					
	1C0	Unknown					
	1C1	Unknown					
	1D0	Unknown					
	1D1	Unknown					
	2C0	Unknown					
	2C1	Unknown					
	2D0	Unknown					
	2D1	Unknown					
	3C0	Unknown					
	3C1	Unknown					
	3D0	Unknown					
	3D1	Unknown					

Status Clear

Figure 5.18 [SB#x] window (If the SB is split) (1/2)

A line with an uninstalled CPU or DIMM is grayed out.

If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

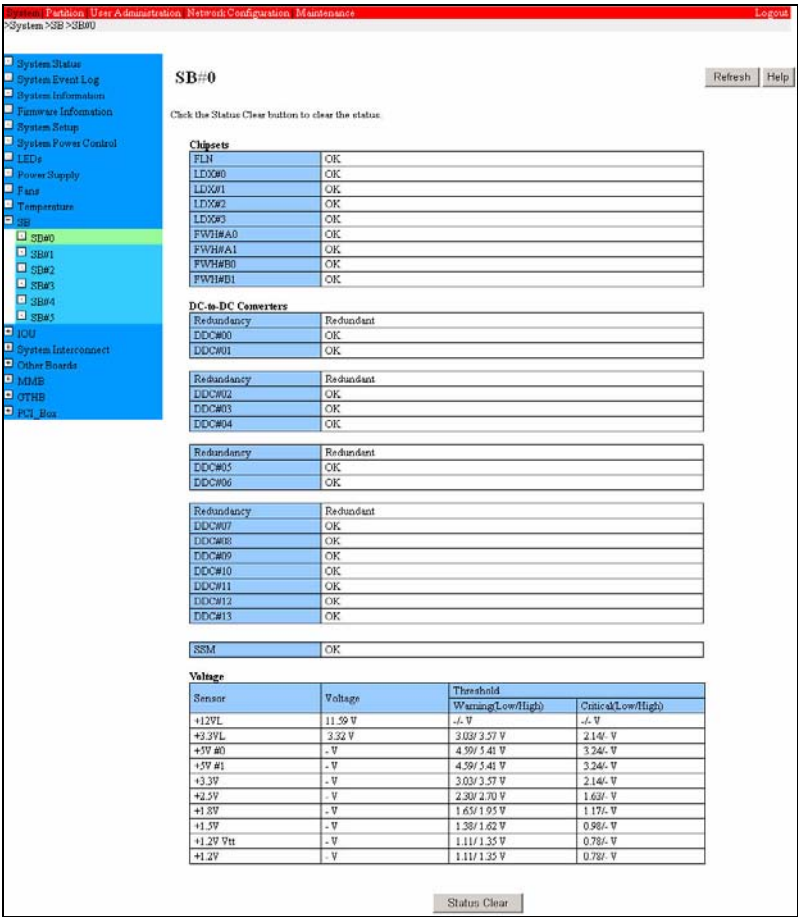


Figure 5.18 [SB#x] window (If the SB is split) (2/2)

System Status

System Event Log

System Information

Firmware Information

System Setup

System Power Control

LEDs

Power Supply

Fans

Temperature

SB

SDW0

SDW1

SDW2

SDW3

SDW4

SDW5

CPU

System Interconnect

Other Boards

MMB

OTHD

PCI_Rss

System > SB > SB#0

SB#0

Refresh

Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	StandBy
Sys Mode	Disabled
Part Number	CA06501-D405 F4
Serial Number	FP06445628
Location LED	Off On Off Blink

CPU's

CPU#	Status	Model	Stepping	Serial Number	PPOD
A0	OK	Dual-Core Intel® Itanium® 2 Processor 9050	C1	B11915AB660A0200	OK
A1	Not present				
B0	OK	Dual-Core Intel® Itanium® 2 Processor 9050	C1	6637E250C8E20300	OK
B1	Not present				

DIMMs

DIMM#	Status	Size	Rank	Data Rate	Part Number	Serial Number
0A0	Unknown					
0A1	Unknown					
0B0	Unknown					
0B1	Unknown					
1A0	Unknown					
1A1	Unknown					
1B0	Unknown					
1B1	Unknown					
2A0	Unknown					
2A1	Unknown					
2B0	Unknown					
2B1	Unknown					
3A0	Unknown					
3A1	Unknown					
3B0	Unknown					
3B1	Unknown					
0C0	Unknown					
0C1	Unknown					
0D0	Unknown					
0D1	Unknown					
1C0	Unknown					
1C1	Unknown					
1D0	Unknown					
1D1	Unknown					
2C0	Unknown					
2C1	Unknown					
2D0	Unknown					
2D1	Unknown					
3C0	Unknown					
3C1	Unknown					
3D0	Unknown					
3D1	Unknown					

Status Clear

Figure 5.19 [SB#x] window (If the SB is not split) (1/2)

The rows of CPUs or DIMMs that are not mounted are grayed out.

Moreover, if the user has no authority for setting a value, the [Status Clear] button is not displayed.

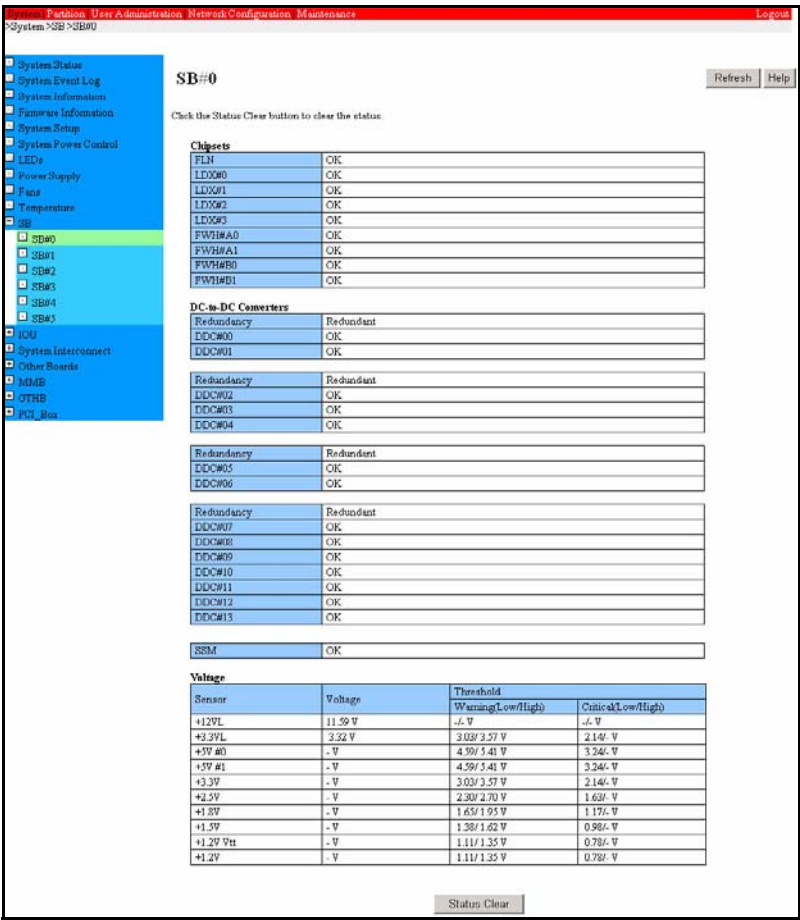


Figure 5.19 [SB#x] window (If the SB is not split) (2/2)

Table 5.33 Displayed and setting items in the [SB#x] window

Item	Description
Board Information	
Status	SB status. <ul style="list-style-type: none">• OK: Operating normally• Not-present: No SB is mounted.• Warning: A warning was detected for a component mounted on the SB, such as the CPU or memory.• Degraded: A failure has occurred on the CPU, memory, or other component on the SB. (The faulty component can be shut down to continue operation of the entire SB system.)• Failed: Failure
A	Split SB status on the A side: <ul style="list-style-type: none">• OK: No failure on the A side• Not-present: No SB is mounted.• Warning: A warning was detected by the voltage sensor on the SB.• Degraded: Although a failure occurred in a component on the A side, the faulty component can be disconnected to continue operation of the SB on the A side.• Failed: A failure occurred on the A side, and the A side must be disconnected or has already been disconnected. Remarks: This information is displayed only if the XPAR license is registered and the SB is split.
B	Split SB status on the B side: <ul style="list-style-type: none">• OK: No failure on the B side• Not-present: No SB is mounted.• Warning: A warning was detected by the voltage sensor on the SB.• Degraded: Although a failure occurred in a component on the B side, the faulty component can be disconnected to continue operation of the SB on the B side.• Failed: A failure occurred on the B side, and the B side must be disconnected or has already been disconnected. Remarks: This information is displayed only if the XPAR license is registered and the SB is split.
Power Status	SB power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Split Mode	SB split status: <ul style="list-style-type: none">• Disabled: Not split• Enabled: Split

Item	Description
Part Number	SB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	SB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	Location LED light state: The three light statuses are as follows: <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

CPU#

Split	Displays the SB split status. If an SB is split into two portions, the display cell is vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 500A/500 series)
CPU#	CPU number
Status	CPU status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Disabled: Normal, but not in use. • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
Model	CPU product name.
Stepping	CPU stepping.
Serial Number	CPU serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
PPOD	Status of the power pod corresponding to a CPU: <ul style="list-style-type: none"> • OK • NG

Item	Description
DIMMs	
Split	Displays the SB split status. If an SB is split into two portions, the display cell is vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 500A/500 series)
DIMM#	DIMM number
Status	DIMM status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Warning: Warning status: (A problem will possibly occur.)• Uncorrectable error: An error (uncorrectable) occurred.• Disabled: Set to the non-operational status• Configuration error: Configuration error• Not supported: Not supported• Unknown: Unknown
Size	DIMM size: <ul style="list-style-type: none">• 1GB• 2GB• 4GB• 8GB If the DIMM [Status] is "Not present," "Not-supported," or "Unknown," this field remains blank.
Rank	DIMM rank number (1, 2, or 4). If the DIMM [Status] is "Not present," "Not-supported," or "Unknown," this field remains blank.
Data Rate	DIMM data rate: <ul style="list-style-type: none">• DDR2-400• DDR2-533• DDR2-667 If the DIMM [Status] is "Not present," "Not-supported," or "Unknown," this field remains blank.
Part Number	DIMM part number. If the DIMM [Status] is "Not present," "Not-supported," or "Unknown," this field remains blank.
Serial Number	DIMM serial number. If the DIMM [Status] is "Not present," "Not-supported," or "Unknown," this field remains blank.

Item	Description
Chipsets	
FLN	FLN status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
LDX#0 to #3	LDX status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
FWH#A0 to #B1	FWH status <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
DC-to-DC Converters	
Redundancy (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Redundancy statuses of DC-to-DC Converters 0 and 1: <ul style="list-style-type: none"> • Redundant: Redundancy is maintained. • Non-redundant: Sufficient Resources: Redundancy is lost, but there are enough converters to continue system operation. • Non-redundant: Insufficient Resources: Redundancy is lost, and there are not enough converters to continue system operation.
DDC#00 to #01 (DDC#00 only for the PRIMEQUEST 520A/ 520/420)	Statuses of DC-to-DC Converters 0 and 1: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Configuration error: Configuration error • Failed: Failure
Redundancy	Redundancy statuses of DC-to-DC Converters 02 to 04. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC Converters 00 and 01.
DDC#02 to #04	Statuses of DC-to-DC Converters 02 to 04. These statuses are displayed in the same way as the statuses of DC-to-DC Converters 00 and 01.
Redundancy (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Redundancy statuses of DC-to-DC Converters 05 and 06. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC Converters 00 and 01.

Item	Description
DDC#05 to #06 (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	Statuses of DC-to-DC Converters 05 and 06. These statuses are displayed in the same way as the statuses of DC-to-DC Converters 00 and 01.
Redundancy	Redundancy statuses of DC-to-DC Converters 07 to 13. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC Converters 00 and 01.
DDC#7 to #13	Statuses of DC-to-DC Converters 07 to 13. These statuses are displayed in the same way as the statuses of DC-to-DC Converters 00 and 01.
SSM	Slow-start circuit status: <ul style="list-style-type: none"> • OK: Operating normally • Failed: Failure

Voltage

Sensor	Voltage sensor type	
Voltage	Current voltage reading	
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.34 Button in the [SB#x] window

Button	Description
Status Clear	Click the [Status Clear] button to display the [SB#x Status Clear] window. This window enables clearing of the error status of an SB component whose failure was detected.

(1) Menu operation

[System] → [SB] → [SB#x]

(2) GUI operation

- Clearing the error status of a component on which an error has been detected
 - 1 Click the [Status Clear] button.
The [SB#x Status Clear] window is displayed.
 - 2 The [SB#x Status Clear] window enables clearing of the error status of a component whose failure was detected.

5.2.14.2 [SB#x Status Clear] window

Once an abnormality is detected in a component, the component remains in the abnormal status until the status is cleared.

The [SB#x Status Clear] window allows you to clear the error status of a component on which an abnormality has been detected. Radio buttons are provided to ensure that you can specify whether to clear all error statuses on the SB at the same time or clear the error status of individual components.

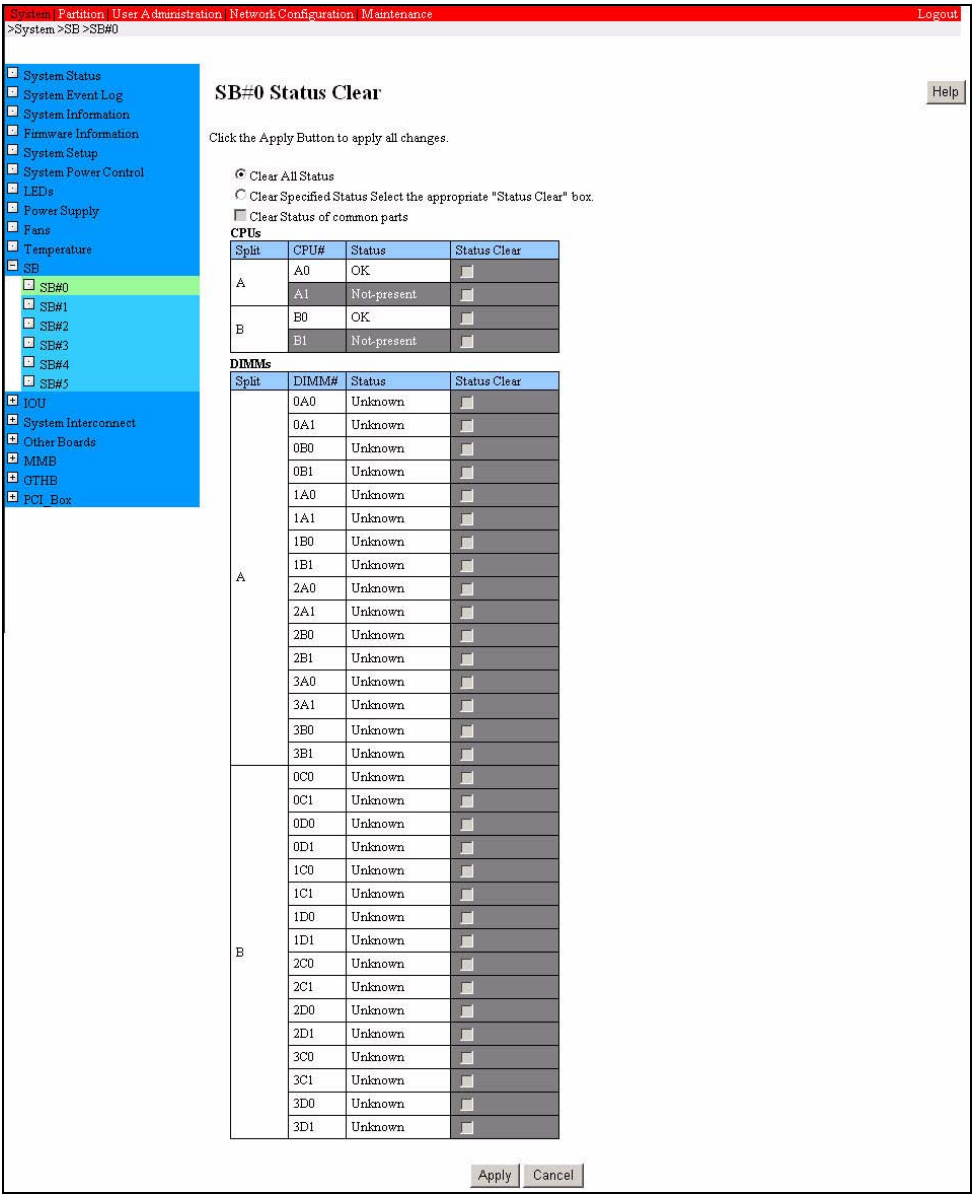


Figure 5.20 [SB#x Status Clear] window (If the SB is split) (1/2)

System Partition User Administration Network Configuration Maintenance Logout
>System>SB>SB#0

SB#0 Status Clear [Help](#)

System Status
System Event Log
System Information
Firmware Information
System Setup
System Power Control
LEDs
Power Supply
Fans
Temperature
SB
SB#0
SB#1
SB#2
SB#3
SB#4
SB#5
IOU
System Interconnect
Other Boards
MMB
GTHB
PCI_Box

Chipsets

ELN	OK
LDX#0	OK
LDX#1	OK
LDX#2	OK
LDX#3	OK
FWH#A0	OK
FWH#A1	OK
FWH#B0	OK
FWH#B1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Redundancy	Redundant
DDC#02	OK
DDC#03	OK
DDC#04	OK

Redundancy	Redundant
DDC#05	OK
DDC#06	OK

Redundancy	Redundant
DDC#07	OK
DDC#08	OK
DDC#09	OK
DDC#10	OK
DDC#11	OK
DDC#12	OK
DDC#13	OK

SSM OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+12VL	11.59 V	-/- V	-/- V
+3.3VL	3.32 V	3.03/ 3.57 V	2.14/- V
+5V #0	- V	4.59/ 5.41 V	3.24/- V
+5V #1	- V	4.59/ 5.41 V	3.24/- V
+3.3V	- V	3.03/ 3.57 V	2.14/- V
+2.5V	- V	2.30/ 2.70 V	1.63/- V
+1.8V	- V	1.65/ 1.95 V	1.17/- V
+1.5V	- V	1.38/ 1.62 V	0.98/- V
+1.2V Vtt	- V	1.11/ 1.35 V	0.78/- V
+1.2V	- V	1.11/ 1.35 V	0.78/- V

[Apply](#) [Cancel](#)

Figure 5.20 [SB#x Status Clear] window (If the SB is split) (2/2)

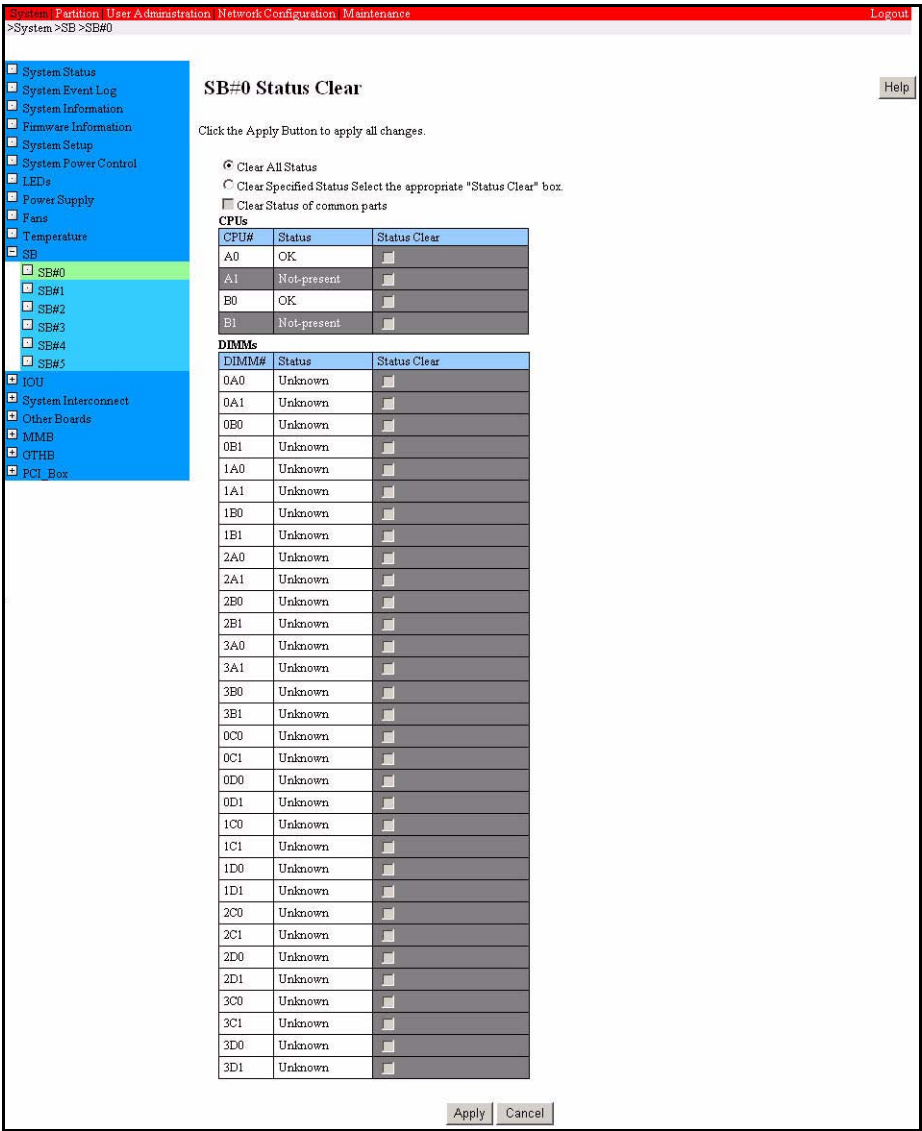


Figure 5.21 [SB#x Status Clear] window (If the SB is not split) (1/2)

SB#0 Status Clear

Chipsets

FLN	OK
LDX#0	OK
LDX#1	OK
LDX#2	OK
LDX#3	OK
FWH#A0	OK
FWH#A1	OK
FWH#B0	OK
FWH#B1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK
Redundancy	Redundant
DDC#02	OK
DDC#03	OK
DDC#04	OK
Redundancy	Redundant
DDC#05	OK
DDC#06	OK
Redundancy	Redundant
DDC#07	OK
DDC#08	OK
DDC#09	OK
DDC#10	OK
DDC#11	OK
DDC#12	OK
DDC#13	OK
SSM	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+12VL	11.59 V	-/- V	-/- V
+3.3VL	3.32 V	3.03/ 3.57 V	2.14/- V
+5V #0	- V	4.59/ 5.41 V	3.24/- V
+5V #1	- V	4.59/ 5.41 V	3.24/- V
+3.3V	- V	3.03/ 3.57 V	2.14/- V
+2.5V	- V	2.30/ 2.70 V	1.63/- V
+1.8V	- V	1.65/ 1.95 V	1.17/- V
+1.5V	- V	1.38/ 1.62 V	0.98/- V
+1.2V Vtt	- V	1.11/ 1.35 V	0.78/- V
+1.2V	- V	1.11/ 1.35 V	0.78/- V

Apply Cancel

Figure 5.21 [SB#x Status Clear] window (If the SB is not split) (2/2)

Table 5.35 Displayed and setting items in the [SB#x Status Clear] window

Item	Description
Clear All Status	Select this item to clear all error statuses at the same time.
Clear Specified Status Select the appropriate "Status Clear" box.	Select this item to clear the error status of each component individually.
Clear Status of common parts	Select [Clear Status of common parts] to clear the statuses of common parts.
CPU#	CPU number
Split	Displays the SB split status. If an SB is split into two portions, the display cell is vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 500A/500 series)

Item	Description
Status	CPU status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Disabled: Normal, but not in use. • Warning: Warning status (A problem will possibly occur.) • Failed: Failure
Status Clear	To clear the status of a CPU, select the CPU.

DIMMs

Split	Displays the SB split status. If an SB is split into two portions, the display cell is vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (PRIMEQUEST 500A/500 series only)
DIMM#	DIMM number
Status	DIMM status: <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Warning: Warning status: (A problem will possibly occur.) • Uncorrectable error: An error (uncorrectable) occurred. • Disabled: Set to the non-operational status • Configuration error: Configuration error • Not supported: Not supported • Unknown: Unknown
Status Clear	Select the DIMM on which you want to clear the error status.

Chipsets

FLN	FLN status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
LDX#0 to #3	LDX status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
FWH#A0 to #B1	FWH status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure

Item	Description
DC-to-DC Converters	
Redundancy (Only for the PRIMEQUEST 580A/540A/580/540/ 480/440)	Redundancy statuses of DC-to-DC converters #0 and #1: <ul style="list-style-type: none">• Redundant: Redundancy is maintained.• Non-redundant: Sufficient Resources: Redundancy is lost, but there are enough converters to continue system operation.• Non-redundant: Insufficient Resources: Redundancy is lost, and there are not enough converters to continue system operation.
DDC#00 to #01 (DDC#00 only for PRIMEQUEST 520A/520/420)	Statuses of DC-to-DC converters #0 and #1: <ul style="list-style-type: none">• OK: Operating normally• Not-present: Not installed• Configuration error: Configuration error• Failed: Failure
Redundancy	Redundancy statuses of DC-to-DC converters #02 to #04. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC converters #00 and #01.
DDC#02 to #04	Statuses of DC-to-DC converters #02 to #04. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC converters #00 and #01.
Redundancy (Only for the PRIMEQUEST 580A/540A/580/540/ 480/440)	Redundancy statuses of DC-to-DC converters #05 to #06. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC converters #00 and #01.
DDC#05 to #06 (Only for the PRIMEQUEST 580A/540A/580/540/ 480/440)	Statuses of DC-to-DC converters #05 to #06. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC converters #00 and #01.
Redundancy	Redundancy statuses of DC-to-DC converters #07 to #13. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC converters #00 and #01.
DDC#07 to #13	Statuses of DC-to-DC converters #07 to #13. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC converters #00 and #01.
SSM	Slow-start circuit status: <ul style="list-style-type: none">• OK: Operating normally• Failed: Failed

Item		Description
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, a hyphen (-) is displayed.
	Critical (Low/High)	Lower and upper limit of the critical-level voltage. If no limit is set, a hyphen (-) is displayed.

Table 5.36 Buttons in the [SB#x Status Clear] window

Button	Description
Apply	To clear the status of a component, select the component, and click the [Apply] button.
Cancel	Click the [Cancel] button to not change information and not clear the status of a component.

(1) Menu operation

[System] → [SB] → [SB#x] → [Status Clear] button

(2) GUI operation

- Make a selection for component status clearing as follows:
 - Click [Clear All Status] to clear the statuses of all components.
 - To clear the statuses of components individually, click [Clear Specified Status] and click [Status Clear] on the component on which you want to clear the error status.
 - Click [Clear Status of common parts] to clear the statuses of common parts.
- Click the [Apply] button.
The statuses of the specified components are then cleared.

5.2.15 IO Unit menu (PRIMEQUEST 580A/540A/580/540/480/440)

The [IOU] menu consists of the following menus for the respective IO Units:

- [IOU#0] to [IOU#7]

The menu for IO Units that have not been mounted are not displayed.

This section describes these menus collectively as [IO Unit#x] because they share the same window format and operating methods.

5.2.15.1 [IOU#x] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [IOU#x] window allows you to view and set the status of the IOU#x board.

Remarks:

- The [Status Clear] button is not displayed for a user who does not have the setting privilege.

The screenshot shows the [IOU#2] window with the following sections:

Board Information

Status	OK	A	OK	B	OK
Power Status	Standby				
Split Mode	Enabled				
Part Number	CA06501-D412 F3				
Serial Number	PP0631P796				
Location LED	Off	On	Off	Blink	

Split

	A	B
BMM#	0	1
Status	OK	OK
Home	Yes	No
Part Number	CA21341-B27X 020AJ	CA21329-B17X 006AE
Serial Number	PP06420032	PP04504453
MAC Address	NIC#0 00:0B:5D:6E:06:95	Unknown
	NIC#1 00:0B:5D:6E:46:B5	Unknown
EMC	OK	OK
FWH#0	OK	OK
FWH#1	OK	OK
ICH	OK	OK
NIC	OK	OK
VGA	OK	OK
Location LED	Off On Off Blink	Off On Off Blink

On board LAN

GbE#	MAC Address
GbE#0	00:0B:5D:6F:19:10
GbE#1	00:0B:5D:6F:19:11
GbE#2	00:0B:5D:6F:18:E8
GbE#3	00:0B:5D:6F:18:E9

PCI Slots

Split	PCI Slot#	Power Status	Status	Frequency	Seg/Bus/Dev	PCI Card Information
A	0	Standby	Not-present			
	1	Standby	Not-present			
B	2	Standby	OK	PCI-X 100MHz	2/14/1	Unknown
	3	Standby	OK	PCI-X 133MHz	2/16/1	Unknown

PCI Box connection

Split	Port#	Status	Connected to		
			PCI Box#	Unit#	Connector
A	0	Not-connected			
	1	Not-connected			
B	2	OK	0	PEXUI#1	0
	3	OK	0	PEXUI#1	1

Status Clear

Figure 5.22 [IOU#x] window (If the IO Unit is split) (1/2)

System

Partition

Switch

User Administration

Network Configuration

Maintenance

Logout

>System>IOU>IOU#2

System Status

System Event Log

System Information

Firmware Information

System Setup

System Power Control

LEDs

Power Supply

Fans

Temperature

SB

IOU

IOU#0

IOU#1

IOU#2

IOU#4

IOU#5

IOU#6

IOU#7

System Interconnect

Other Boards

MMB

GSWB

PCI_Box

IOU#2

Refresh

Help

Chipsets

FLI	OK
FLP#0	OK
FLP#1	OK
PXH#A0	OK
PXH#A1	OK
PXH#B0	OK
PXH#B1	OK
Onboard GbE#0	OK
Onboard SCSI#0	OK
Onboard GbE#1	OK
Onboard SCSI#1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Redundancy	Redundant
DDC#02	OK
DDC#03	OK

DDC#04	OK
DDC#07	OK
DDC#08	OK
SSM	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5VL	5.00 V	4.61/ 5.40 V	3.25/- V
+3.3VL	3.36 V	3.05/ 3.57 V	2.16/- V
+12V	- V	11.02/12.98 V	7.81/- V
+5V	- V	4.75/ 5.55 V	3.34/- V
+3.3V	- V	3.05/ 3.57 V	2.16/- V
+2.5V	- V	2.30/ 2.71 V	1.62/- V
+2.5V GLAN#0	- V	2.30/ 2.71 V	1.62/- V
+2.5V GLAN#1	- V	2.30/ 2.71 V	1.62/- V
+1.8V SCSI#0	- V	1.65/ 1.95 V	1.16/- V
+1.8V SCSI#1	- V	1.65/ 1.95 V	1.16/- V
+1.5V	- V	1.36/ 1.63 V	0.97/- V
+1.2V	- V	1.11/ 1.30 V	0.78/- V
-12V	- V	-12.99/-11.05 V	-/-7.74 V

Status Clear

Figure 5.22 [IOU#x] window (If the IO Unit is split) (2/2)

System Partition User Administration Network Configuration Maintenance Logout

>System>IOU>IOU#2

System Status

System Event Log

System Information

Firmware Information

System Setup

System Power Control

LEDs

Power Supply

Fans

Temperature

SB

IOU

IOU#0

IOU#1

IOU#2

IOU#4

IOU#5

IOU#6

IOU#7

System Interconnect

Other Boards

MMB

GSWB

PCI_Box

IOU#2

Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	On
Split Mode	Disabled
Part Number	CA06503-D121 C0
Serial Number	FP0632W907
Location LED	Off On Off Blink

BMM#	1	0
Status	OK	OK
Home	Yes	Yes
Part Number	CA21343-B35X 008AE	CA21343-B35X 009AE
Serial Number	FP06266493	FP0646D086
MAC Address	00:0B:5D:6F:81:84	00:0B:5D:6F:82:55
BMC	OK	OK
FWH#0	OK	OK
FWH#1	OK	OK
ICH	OK	OK
VGA	OK	OK
Location LED	Off On Off Blink	Off On Off Blink

On board LAN

GbE#	MAC Address
GbE#0	00:0B:5D:70:42:80
GbE#1	00:0B:5D:70:42:81
GbE#2	00:0B:5D:70:42:84
GbE#3	00:0B:5D:70:42:85

PCI Slots

PCI Slot#	Power Status	Status	Frequency	Seg/Bus/Dev	PCI Card Information
0	Standby	Not-present			
1	Standby	Not-present			
4	On	OK	PCI-X 133MHz	0/33/1	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320
5	Standby	Not-present			
2	Standby	Not-present			
3	Standby	Not-present			
6	Standby	Not-present			
7	Standby	Not-present			

Status Clear

Figure 5.23 [IOU#x] window (If the IO Unit is not split) (1/2)

C122-E003-10EN

5-65

System

Partition

Switch

User Administration

Network Configuration

Maintenance

Logout

>System>IOU>IOU#2

System Status

System Event Log

System Information

Firmware Information

System Setup

System Power Control

LEDs

Power Supply

Fans

Temperature

SB

IOU

IOU#0

IOU#1

IOU#2

IOU#4

IOU#5

IOU#6

IOU#7

System Interconnect

Other Boards

MMB

GSWB

PCI_Box

IOU#2

Refresh

Help

Chipsets

FLI	OK
FLP#0	OK
FLP#1	OK
PXH#A0	OK
PXH#A1	OK
PXH#B0	OK
PXH#B1	OK
Onboard GbE#0	OK
Onboard SCSI#0	OK
Onboard GbE#1	OK
Onboard SCSI#1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Redundancy	Redundant
DDC#02	OK
DDC#03	OK

DDC#04	OK
DDC#07	OK
DDC#08	OK
SSM	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5VL	5.00 V	4.61/ 5.40 V	3.25/- V
+3.3VL	3.36 V	3.05/ 3.57 V	2.16/- V
+12V	- V	11.02/12.98 V	7.81/- V
+5V	- V	4.75/ 5.55 V	3.34/- V
+3.3V	- V	3.05/ 3.57 V	2.16/- V
+2.5V	- V	2.30/ 2.71 V	1.62/- V
+2.5V GLAN#0	- V	2.30/ 2.71 V	1.62/- V
+2.5V GLAN#1	- V	2.30/ 2.71 V	1.62/- V
+1.8V SCSI#0	- V	1.65/ 1.95 V	1.16/- V
+1.8V SCSI#1	- V	1.65/ 1.95 V	1.16/- V
+1.5V	- V	1.36/ 1.63 V	0.97/- V
+1.2V	- V	1.11/ 1.30 V	0.78/- V
-12V	- V	-12.99/-11.05 V	-/-7.74 V

Status Clear

Figure 5.23 [IOU#x] window (If the IO Unit is not split) (2/2)

Table 5.37 Displayed and setting items in the [IOU#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	IO Unit status: <ul style="list-style-type: none">• OK: Operating normally• Degraded: Component failure (The faulty component can be isolated to continue operation.)• [Warning]: The IO Unit is in the warning state (a failure will probably occur).• Failed: Failure
Power Status	IO Unit power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
A	Split IO Unit status on the A side: <ul style="list-style-type: none">• OK No failure on the A side• Not-present No IO Unit is mounted.• Warning A warning was detected by the voltage sensor on the IO Unit.• Degraded Although a failure occurred in a component on the A side, the faulty component can be disconnected to continue operation of the IO Unit on the A side.• Failed A failure occurred on the A side, and the A side must be disconnected or has already been disconnected. Remarks: This information is displayed only if the XPAR license is registered and the IO Unit is split.

Item	Description
B	<p>Split IO Unit status on the B side:</p> <ul style="list-style-type: none"> • OK No failure on the B side • Not-present No IO Unit is mounted. • Warning A warning was detected by the voltage sensor on the IO Unit. • Degraded Although a failure occurred in a component on the B side, the faulty component can be disconnected to continue operation of the IO Unit on the B side. • Failed A failure occurred on the B side, and the B side must be disconnected or has already been disconnected. <p>Remarks: This information is displayed only if the XPAR license is registered and the IO Unit is split.</p>
Split Mode	<p>IO Unit split status:</p> <ul style="list-style-type: none"> • Enabled: Split • Disabled: Not split
Part Number	<p>IO Unit board part number</p> <p>Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.</p>
Serial Number	<p>IO Unit board serial number</p> <p>Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.</p>
Location LED	<p>Location LED status</p> <p>The three light statuses are as follows:</p> <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking <p>The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.</p>
Split	<p>Displays the IO Unit split status. If an IO Unit is split into two portions, the display cell is vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 500A/500 series)</p>
BMM#	BMM number
Status	<p>BMM status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Failed: Failure

Item	Description
Home	Indication of whether the BMM is set as home: <ul style="list-style-type: none">• Yes: Home• No: Not home
Part Number	BMM part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	BMM serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
MAC Address NIC#0, NIC#1	MAC address of a NIC on the BMM. If this address is unknown, "Unknown" is displayed.
BMC	BMC status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
FWH#0, FWH#1	Statuses of FWH#0 and FWH#1: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
ICH	ICH status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
NIC	NIC status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer.)• Failed: Failure
VGA	VGA status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer.)• Failed: Failure

Item	Description
Location LED	<p>Location LED status.</p> <p>The three light statuses are as follows:</p> <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking <p>The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.</p>

On Board LAN

Split	Displays the IO Unit split status. If an IO Unit is split into two portions, the display cell IO Units vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 580A/540A/580/540 series)
GbE	GbE number
MAC Address	LAN MAC address of the GbE installed in the IO Unit

PCI Slots

Split	Displays the IO Unit split status. If an IO Unit is split into two portions, the display cell IO Units vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 580A/540A/580/540 series)
PCI Slot#	PCI slot number
Power Status	<p>PCI slot power status:</p> <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Status	<p>PCI slot status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Failed: Failure • Disabled: Normal, but not in use.
Frequency	<p>Operating frequency:</p> <ul style="list-style-type: none"> • PCI 33MHz • PCI-X 66MHz • PCI-X 100MHz • PCI-X 133MHz
Seg/Bus/Dev	Segment number, bus number, and device number of the PCI device
PCI Card Information	PCI card information (16 bytes, ASCII)

Item	Description
PCI_Box Connection	
Split	Displays the IO Unit split status. If an IO Unit is split into two portions, the display cell IO Units vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 580A/540A/580/540 series)
Port#	Port number
Status	Status of connection with PCI_Box: <ul style="list-style-type: none">• OK: Operating normally• Not-present: Not installed• Incorrect connection: Not connected
PCI_Box#	PCI box number
Unit#	PCIU/PEXU number
Connector	Displays the PEXU connector number if the connection destination is a PEXU. If nothing is connected, the item is grayed out.

Chipsets

FLI	FLI status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
FLP#0 to #1	FLP status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
PXH#A0, #A1 PXH#B0, #B1	PXH status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
Onboard GbE#0, #1	GbE status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer.)• Failed: Failure
Onboard SCSI#0, #1	SCSI status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer.)• Failed: Failure

Item		Description
DC-to-DC Converters		
Redundancy		Redundancy statuses of DC-to-DC converters 00 and 01: <ul style="list-style-type: none"> • Redundant: Redundancy is maintained. • [Non-redundant: Sufficient Resources]: Redundancy is lost, but there are enough converters to continue system operation. • [Non-redundant: Insufficient Resources]: Redundancy is lost, and there are not enough converters to continue system operation.
DDC#00 to #01		Statuses of DC-to-DC converters 00 and 01: <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
Redundancy		Redundancy statuses of DC-to-DC Converters 02 to 04. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC Converters 00 and 01.
DDC#02 to #03		Statuses of DC-to-DC converters 02 and 03 <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
DDC#04, #07, #08		Statuses of DC-to-DC converters 04, 07, and 08 <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
SSM		Slow-start circuit status: <ul style="list-style-type: none"> • OK: Operating normally • Failed: Failure

Voltage

Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.38 Button in the [IOU#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Status Clear	Clears the error status of the IO Unit.

(1) Menu operation

[System] → [IOU] → [IOU#x]

(2) GUI operation

- 1 Click the [Status Clear] button.
The error status of the IO Unit is cleared.

5.2.16 IO Unit menu (PRIMEQUEST 520A/520/420)

The [IOU] menu consists of the following menus:

- [IOU]
- [IOX]

5.2.16.1 [IOU] window (PRIMEQUEST 520A/520/420)

The [IOU] window allows you to view and set the status of the IOU board.

Remarks:

- The [Status Clear] button is not displayed for a user who does not have the setting privilege.

System Partition User Administration Network Configuration Maintenance Logout

>System>IOU>IOU#0

System Status

System Event Log

System Information

Firmware Information

System Setup

System Power Control

LEDs

Power Supply

Fans

Temperature

SB

IOU

IOX

Other Boards

MMB

PCI_Box

IOU

Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK	A	OK	B	OK
Power Status	On				
Split Mode	Enabled				
Part Number	CA06503-D121 C0				
Serial Number	PF0632W907				
Location LED	Off	On	Off	Blink	

Split	A	B
BMM#	1	0
Status	OK	OK
Home	Yes	Yes
Part Number	CA21343-B35X 008AE	CA21343-B35X 009AE
Serial Number	PP06266493	PP0646D086
MAC Address	00:0B:5D:6F:81:84	00:0B:5D:6F:82:55
BMC	OK	OK
FW/HW0	OK	OK
FW/HW1	OK	OK
ICH	OK	OK
VGA	OK	OK
Location LED	Off On Off Blink	Off On Off Blink

On board LAN

Split	GbE#	MAC Address
A	GbE#0	00:0B:5D:70:42:80
	GbE#1	00:0B:5D:70:42:81
	GbE#2	00:0B:5D:70:42:84
B	GbE#3	00:0B:5D:70:42:85

PCI Slots

Split	PCI Slot#	Power Status	Status	Frequency	Seg/Bus/Dev	PCI Card Information
A	0	Standby	Not-present			
	1	Standby	Not-present			
	4	On	OK	PCI-X 133MHz	0/33/1	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320
	5	Standby	Not-present			
B	2	Standby	Not-present			
	3	Standby	Not-present			
	6	Standby	Not-present			
	7	Standby	Not-present			

Status Clear

Figure 5.24 [IOU] window (If the IO Unit is split) (1/2)

System Partition User Administration Network Configuration Maintenance Logout
>System>IOU>IOU#0

IOU Refresh Help

Click the Status Clear button to clear the status.

Chipsets

FLI	OK
FLP#0	OK
FLP#1	OK
PXH#0	OK
PXH#1	OK
PXH#2	OK
PXH#3	OK
PEX#0	OK
PEX#1	OK
Onboard GbE#0	OK
Onboard SAS#0	OK
Onboard GbE#1	OK
Onboard SAS#1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK
DDC#02	OK

Redundancy	Redundant
DDC#03	OK
DDC#04	OK

DDC#05	OK
DDC#06	OK
DDC#07	OK
DDC#09	OK
DDC#10	OK
SSM	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5.0VL	5.02 V	4.59/ 5.41 V	3.25/- V
+3.3VL	3.36 V	3.05/ 3.57 V	2.14/- V
+12V	12.22 V	11.02/12.98 V	7.81/- V
+5V	5.01 V	4.63/ 5.41 V	3.24/- V
+3.3V	3.34 V	3.05/ 3.62 V	2.14/- V
+3.3V SAS	3.30 V	3.04/ 3.62 V	2.14/- V
+3.3V GLAN	3.30 V	3.04/ 3.62 V	2.14/- V
+2.5V GLAN	2.50 V	2.30/ 2.80 V	1.62/- V
+2.5V #1	2.51 V	2.30/ 2.80 V	1.63/- V
+2.5V #2	2.49 V	2.30/ 2.80 V	1.63/- V
+2.5V #3	2.50 V	2.30/ 2.80 V	1.63/- V
+1.5V	1.49 V	1.38/ 1.62 V	0.98/- V
+1.2V	1.21 V	1.11/ 1.29 V	0.78/- V
+1.0V	1.00 V	0.92/ 1.08 V	0.65/- V
-12V	-11.98 V	-13.00/-11.06 V	-/-7.76 V

Status Clear

Figure 5.24 [IOU] window (If the IO Unit is split) (2/2)

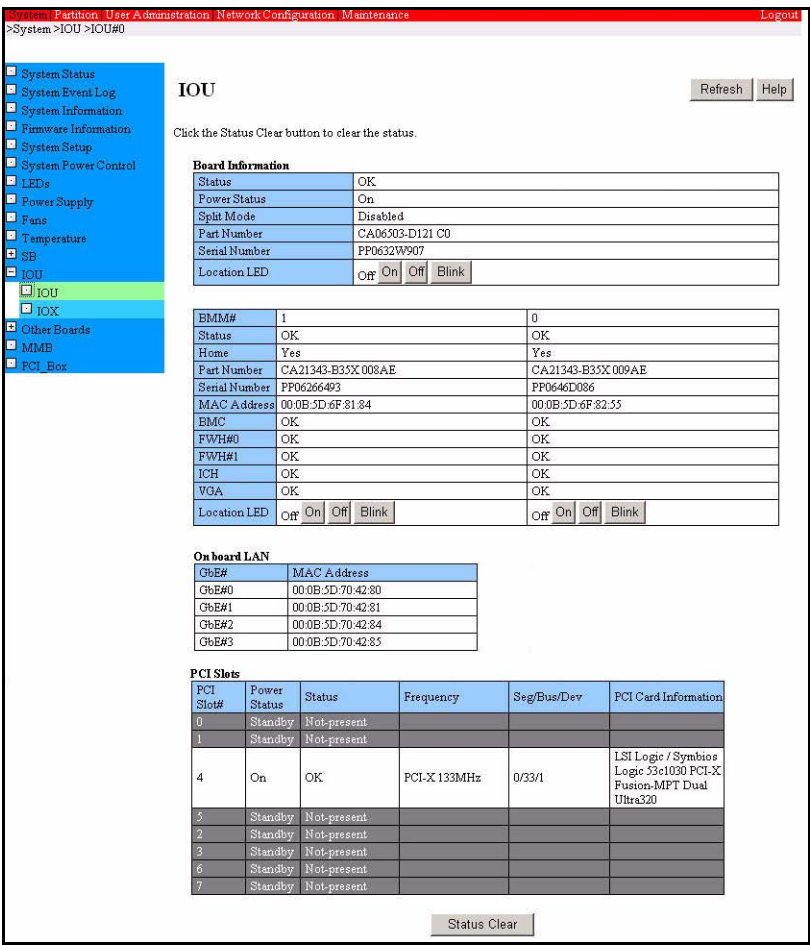


Figure 5.25 [IOU] window (If the IO Unit is not split) (1/2)

System Partition User Administration Network Configuration Maintenance Logout
>System>IOU>IOU#0

IOU Refresh Help

Click the Status Clear button to clear the status.

Chipsets

FLI	OK
FLP#0	OK
FLP#1	OK
PXH#0	OK
PXH#1	OK
PXH#2	OK
PXH#3	OK
PEX#0	OK
PEX#1	OK
Onboard GbE#0	OK
Onboard SAS#0	OK
Onboard GbE#1	OK
Onboard SAS#1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK
DDC#02	OK

Redundancy	Redundant
DDC#03	OK
DDC#04	OK

DDC#05	OK
DDC#06	OK
DDC#07	OK
DDC#09	OK
DDC#10	OK
SSM	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5.0VL	5.02 V	4.59/ 5.41 V	3.25/- V
+3.3VL	3.36 V	3.05/ 3.57 V	2.14/- V
+12V	12.22 V	11.02/12.98 V	7.81/- V
+5V	5.01 V	4.63/ 5.41 V	3.24/- V
+3.3V	3.34 V	3.05/ 3.62 V	2.14/- V
+3.3V SAS	3.30 V	3.04/ 3.62 V	2.14/- V
+3.3V GLAN	3.30 V	3.04/ 3.62 V	2.14/- V
+2.5V GLAN	2.50 V	2.30/ 2.80 V	1.62/- V
+2.5V #1	2.51 V	2.30/ 2.80 V	1.63/- V
+2.5V #2	2.49 V	2.30/ 2.80 V	1.63/- V
+2.5V #3	2.50 V	2.30/ 2.80 V	1.63/- V
+1.5V	1.49 V	1.38/ 1.62 V	0.98/- V
+1.2V	1.21 V	1.11/ 1.29 V	0.78/- V
+1.0V	1.00 V	0.92/ 1.08 V	0.65/- V
-12V	-11.98 V	-13.00/-11.06 V	-/-7.76 V

Status Clear

Figure 5.25 [IOU] window (If the IO Unit is not split) (2/2)

Table 5.39 Displayed and setting items in the [IOU] window
(PRIMEQUEST 520A/520/420)

Item	Description
Board Information	
Status	IO Unit status: <ul style="list-style-type: none"> • OK: Operating normally • Degraded: Component failure (The faulty component can be isolated to continue operation.) • [Warning]: The IO Unit is in the warning state (a failure will probably occur). • Failed: Failure
Power Status	IO Unit power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
A	Split IO Unit status on the A side: <ul style="list-style-type: none"> • OK: No failure on the A side • Not-present: No IO Unit is mounted. • Warning: A warning was detected by the voltage sensor on the IO Unit. • Degraded: Although a failure occurred in a component on the A side, the faulty component can be disconnected to continue operation of the IO Unit on the A side. • Failed: A failure occurred on the A side, and the A side must be disconnected or has already been disconnected. Remarks: This information is displayed only if the XPAR license is registered and the IO Unit is split.
B	Split IO Unit status on the B side: <ul style="list-style-type: none"> • OK: No failure on the B side • Not-present: No IO Unit is mounted. • Warning: A warning was detected by the voltage sensor on the IO Unit. • Degraded: Although a failure occurred in a component on the B side, the faulty component can be disconnected to continue operation of the IO Unit on the B side. • Failed: A failure occurred on the B side, and the B side must be disconnected or has already been disconnected. Remarks: This information is displayed only if the XPAR license is registered and the IO Unit is split.
Split Mode	IO Unit split status: <ul style="list-style-type: none"> • Enabled: Split • Disabled: Not split

Item	Description
Part Number	IO Unit board part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	IO Unit board serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	Location LED status The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.
BMM#	BMM number
Status	BMM status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Failed: Failure
Home	Indication of whether the BMM is set as home: <ul style="list-style-type: none">• Yes: Home• No: Not home
Part Number	BMM part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	BMM serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
MAC Address	MAC address of a NIC on the BMM. If this address is unknown, "Unknown" is displayed.
BMC	BMC status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
FWH#0, FWH#1	Statuses of FWH#0 and FWH#1: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure

Item	Description
ICH	ICH status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
VGA	VGA status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer) • Failed: Failure
Location LED	Location LED status. The three light statuses are as follows: <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

On Board LAN

Split	Displays the IO Unit split status. If an IO Unit is split into two portions, the display cell IO Units vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 520A/520)
GbE	GbE number
MAC Address	LAN MAC address of the GbE installed in the IO Unit

PCI Slots

Split	Displays the IO Unit split status. If an IO Unit is split into two portions, the display cell IO Units vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively. (Only for the PRIMEQUEST 520A/520)
PCI Slot#	PCI slot number
Power Status	PCI slot power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Status	PCI slot status: <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Failed: Failure • Disabled: Normal, but not in use.

Item	Description
Frequency	Operating frequency: <ul style="list-style-type: none">• PCI 33MHz• PCI-X 66MHz• PCI-X 100MHz• PCI-X 133MHz• PCI-Express × 4
Seg/Bus/Dev	Segment number, bus number, and device number of the PCI device
PCI Card Information	PCI card information (64 bytes, ASCII)
Chipsets	
FLI	FLI status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
FLP#0 to #1	FLP status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
PXH#0 to #3	PXH status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
PEX#0, #1	PEX status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
Onboard GbE#0, #1	GbE status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer.)• Failed: Failure

Item	Description
Onboard SAS#0, #1	<p>SAS status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a Fujitsu certified service engineer.) • Failed: Failure

DC-to-DC Converters

Redundancy	<p>Redundancy statuses of DC-to-DC converters 00 and 02:</p> <ul style="list-style-type: none"> • Redundant: Redundancy is maintained. • [Non-redundant: Sufficient Resources]: Redundancy is lost, but there are enough converters to continue system operation. • [Non-redundant: Insufficient Resources]: Redundancy is lost, and there are not enough converters to continue system operation.
DDC#00 to #02	<p>Statuses of DC-to-DC converters 00 and 02:</p> <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
Redundancy	<p>Redundancy statuses of DC-to-DC Converters 03 to 04. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC Converters 00 and 01.</p>
DDC#03 to #04	<p>Statuses of DC-to-DC converters 03 and 04</p> <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
DDC#05 to #10	<p>Statuses of DC-to-DC converters 05 to 10</p> <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
SSM	<p>Slow-start circuit status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Failed: Failure

Voltage

Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.40 Button in the [IOU] window (PRIMEQUEST 520A/520/420)

Button	Description
Status Clear	Clears the error status of the IO Unit.

(1) Menu operation

[System] → [IOU] → [IOU]

(2) GUI operation

- 1 Click the [Status Clear] button.
The error status of the IO Unit is cleared.

5.2.16.2 [IOX] window (PRIMEQUEST 520A/520/420)

The [IOX] window allows you to view and set the status of the IOX board.

Remarks: The [Status Clear] button is not displayed for a user who does not have the setting privilege.

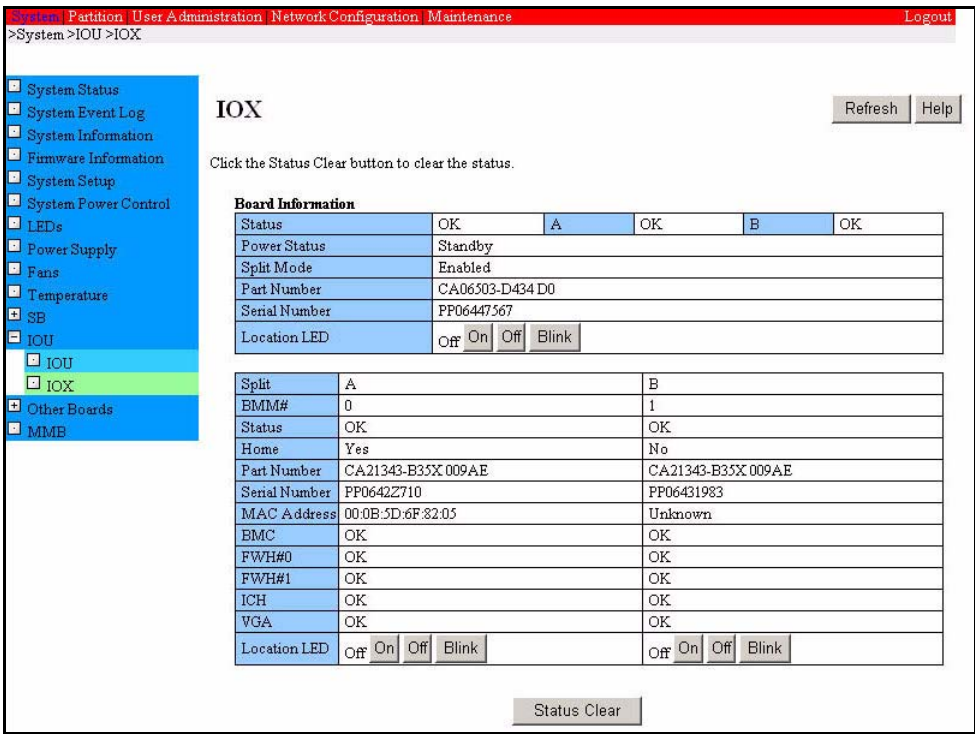


Figure 5.26 [IOX] window (If the IOX is split) (1/2)

System Partition User Administration Network Configuration Maintenance Logout
>System>IOU>IOX

☐ System Status
☐ System Event Log
☐ System Information
☐ Firmware Information
☐ System Setup
☐ System Power Control
☐ LEDs
☐ Power Supply
☐ Fans
☐ Temperature
☐ SB
☒ IOU
☐ IOU
☒ IOX
☐ Other Boards
☐ MMB

IOX

Refresh Help

PCI Box connection

Split	Port#	Status	Connected to	
			Unit#	Connector
A	0	OK	PEXU#0	0
	1	OK	PEXU#0	1
B	2	Not-connected		
	3	Not-connected		

Chipsets

FLI	OK
FLP	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Redundancy	Redundant
DDC#05	OK
DDC#06	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5.0VL	5.04 V	4.59/ 5.41 V	3.25/- V
+3.3VL	3.38 V	3.05/ 3.57 V	2.14/- V
+5V#1	- V	4.63/ 5.41 V	3.24/- V
+5V#2	- V	4.63/ 5.41 V	3.24/- V
+5V#3	- V	4.63/ 5.41 V	3.24/- V
+3.3V	- V	3.05/ 3.57 V	2.14/- V
+2.5V #1	- V	2.30/ 2.80 V	1.62/- V
+2.5V #2	- V	2.30/ 2.80 V	1.62/- V
+1.5V	- V	1.36/ 1.63 V	0.97/- V
+1.2V	- V	1.11/ 1.29 V	0.78/- V

Status Clear

Figure 5.26 [IOX] window (If the IOX is split) (2/2)

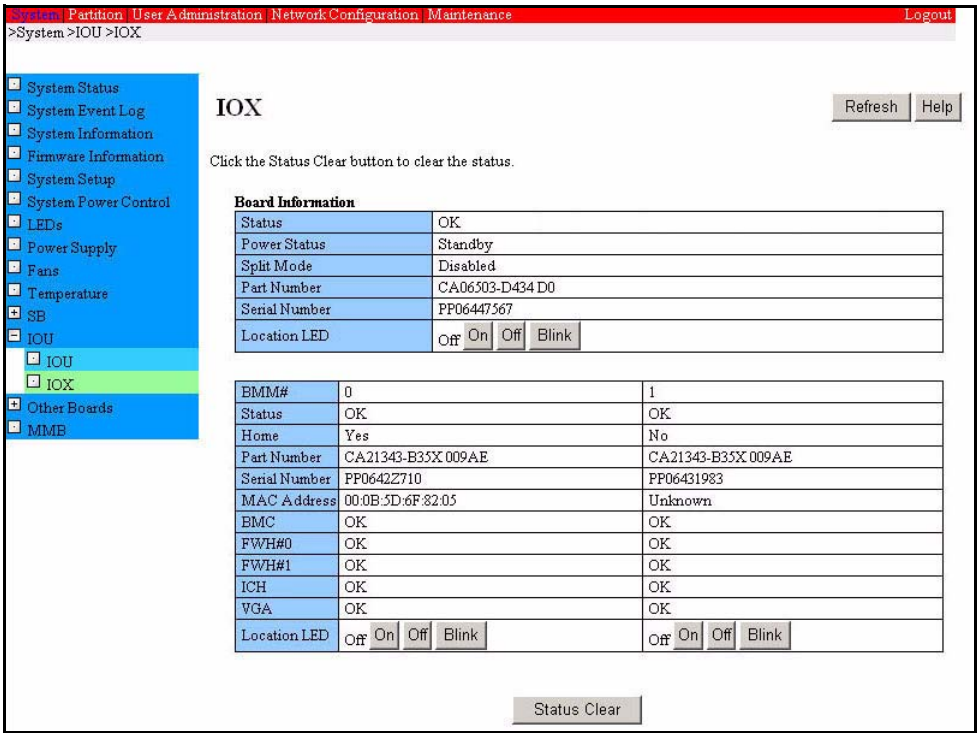


Figure 5.27 [IOX] window (If the IOX is not split) (1/2)

System Partition User Administration Network Configuration Maintenance Logout
>System>IOU>IOX

IOX Refresh Help

System Status
☐ System Status
☐ System Event Log
☐ System Information
☐ Firmware Information
☐ System Setup
☐ System Power Control
☐ LEDs
☐ Power Supply
☐ Fans
☐ Temperature
☐ SB
☒ IOU
☒ IOX
☐ Other Boards
☐ MMB

PCI Box connection

Split	Port#	Status	Connected to	
			Unit#	Connector
A	0	OK	PEXU#0	0
	1	OK	PEXU#0	1
B	2	Not-connected		
	3	Not-connected		

Chipsets

FLI	OK
FLP	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Redundancy	Redundant
DDC#05	OK
DDC#06	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5.0VL	5.04 V	4.59/ 5.41 V	3.25/- V
+3.3VL	3.38 V	3.05/ 3.57 V	2.14/- V
+5V#1	- V	4.63/ 5.41 V	3.24/- V
+5V#2	- V	4.63/ 5.41 V	3.24/- V
+5V#3	- V	4.63/ 5.41 V	3.24/- V
+3.3V	- V	3.05/ 3.57 V	2.14/- V
+2.5V #1	- V	2.30/ 2.80 V	1.62/- V
+2.5V #2	- V	2.30/ 2.80 V	1.62/- V
+1.5V	- V	1.36/ 1.63 V	0.97/- V
+1.2V	- V	1.11/ 1.29 V	0.78/- V

Status Clear

Figure 5.27 [IOX] window (If the IOX is not split) (2/2)

Table 5.41 Displayed and setting items in the [IOX] window
(PRIMEQUEST 520A/520/420)

Item	Description
Board Information	
Status	IOX status: <ul style="list-style-type: none"> • OK: Operating normally • Degraded: Component failure (The faulty component can be isolated to continue operation.) • [Warning]: The IOX is in the warning state (a failure will probably occur). • Failed: Failure
Power Status	IOX power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode

Item	Description
A	<p>Split IOX status on the A side:</p> <ul style="list-style-type: none"> • OK: No failure on the A side • Not-present: No IOX is mounted. • Warning: A warning was detected by the voltage sensor on the IOX. • Degraded: Although a failure occurred in a component on the A side, the faulty component can be disconnected to continue operation of the IOX on the A side. • Failed: A failure occurred on the A side, and the A side must be disconnected or has already been disconnected. <p>Remarks: This information is displayed only if the XPAR license is registered and the IOX is split.</p>
B	<p>Split IOX status on the B side:</p> <ul style="list-style-type: none"> • OK: No failure on the B side • Not-present: No IOX is mounted. • Warning: A warning was detected by the voltage sensor on the IOX. • Degraded: Although a failure occurred in a component on the B side, the faulty component can be disconnected to continue operation of the IOX on the B side. • Failed: A failure occurred on the B side, and the B side must be disconnected or has already been disconnected. <p>Remarks: This information is displayed only if the XPAR license is registered and the IOX is split.</p>
Split Mode	<p>IOX split status:</p> <ul style="list-style-type: none"> • Enabled: Split • Disabled: Not split
Part Number	<p>IOX board part number</p> <p>Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.</p>
Serial Number	<p>IOX board serial number</p> <p>Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.</p>
Location LED	<p>Location LED status</p> <p>The three light statuses are as follows:</p> <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking <p>The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.</p>
BMM#	BMM number

Item	Description
Status	BMM status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Failed: Failure
Home	Indication of whether the BMM is set as home: <ul style="list-style-type: none">• Yes: Home• No: Not home
Part Number	BMM part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	BMM serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
MAC Address	MAC address of a NIC on the BMM. If this address is unknown, "Unknown" is displayed.
BMC	BMC status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
FWH#0, FWH#1	Statuses of FWH#0 and FWH#1: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
ICH	ICH status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
VGA	VGA status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (Contact a certified service engineer.)• Failed: Failure
Location LED	Location LED status. The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

Item	Description
PCI_Box Connection	
Split	Split state of the IOX. If the IOX is split, the cell is split into a top row and bottom row. The top row is displayed as A and the bottom row as B. (PRIMEQUEST 520A/520 only)
Port#	Port number
Status	Status of connection with PCI_Box: <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Incorrect connection: Not connected
Unit#	PCIU/PEXU number
Connector (PRIMEQUEST 520A/520 only)	Displays the PEXU connector number if the connection destination is a PEXU. If nothing is connected, the item is grayed out. If the PCIU is connected, "-" is displayed.
Chipsets	
FLI	FLI status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
FLP	FLP status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (Contact a certified service engineer.) • Failed: Failure
DC-to-DC Converters	
Redundancy	Redundancy statuses of DC-to-DC converters 00 and 01: <ul style="list-style-type: none"> • Redundant: Redundancy is maintained. • [Non-redundant: Sufficient Resources]: Redundancy is lost, but there are enough converters to continue system operation. • [Non-redundant: Insufficient Resources]: Redundancy is lost, and there are not enough converters to continue system operation.
DDC#00 to #01	Statuses of DC-to-DC converters 00 and 01: <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Configuration error: Configuration error • Failed: Failure
Redundancy	Redundancy statuses of DC-to-DC Converters 05 to 06. These statuses are displayed in the same way as the redundancy statuses of DC-to-DC Converters 00 and 01.

Item	Description
DDC#05 to #06	Statuses of DC-to-DC converters 05 and 06 <ul style="list-style-type: none">• OK: Operating normally• Not-present: Not installed• Configuration error: Configuration error• Failed: Failure

Voltage

Sensor	Voltage sensor type	
Voltage	Current voltage reading	
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.42 Button in the [IOX] window (PRIMEQUEST 520A/520/420)

Button	Description
Status Clear	Clears the error status of the IOX.

(1) Menu operation

[System] → [IOU] → [IOX]

(2) GUI operation

- 1 Click the [Status Clear] button.
The error status of the IOX is cleared.

5.2.17 System Interconnect menu (PRIMEQUEST 580A/540A/580/540/480/440)

The [System Interconnect] menu consists of the following two menus for the respective XAI units and four menus for the respective XDI units:

- [XAI#0] to [XAI#1]
- [XDI#0] to [XDI#3]

This section describes the [XAI#0] to [XAI#1] collectively as [XAI#x] because they share the same window format and operating methods. Likewise, the section describes the [XDI#0] to [XDI#3] menus collectively as [XDI#x].

5.2.17.1 [XAI#x] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [XAI#x] window allows you to view the statuses of the XAIx boards installed on a PRIMEQUEST series machine, clear the error status, and set location LEDs.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

The screenshot shows the web UI for the [XAI#0] window. The left sidebar contains a navigation menu with options like System Status, System Event Log, System Information, Firmware Information, System Setup, System Power Control, LEDs, Power Supply, Fans, Temperature, SB, IOU, System Interconnect, and Other Boards. The main content area is titled 'XAI#0' and includes a 'Refresh' and 'Help' button. Below the title, there is a instruction: 'Click the Status Clear button to clear the status.' The main content is divided into several sections: Board Information, Chipsets, DC-to-DC Converters, and Voltage. Each section contains a table of status data.

Board Information			
Status	OK		
Power Status	On		
Part Number	CA06501-D122 A6		
Serial Number	PP0527J897		
Location LED	Off	On	Blink

Chipsets	
GAC	OK

DC-to-DC Converters	
Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+12VL	11.72 V	-/- V	-/- V
+3.3VL	3.32 V	3.04/ 3.56 V	2.14/- V
+2.5V	2.52 V	2.30/ 2.70 V	1.62/- V
+1.2V	1.21 V	1.10/ 1.35 V	0.78/- V

At the bottom of the window, there is a 'Status Clear' button.

Figure 5.28 [XAI#x] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.43 Displayed and setting items in the [XAI#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	XAI board status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: Component failure. (The faulty component can be isolated to continue operation.)• Failed: Failure
Power Status	XAI board power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number	XAI board part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	XAI board serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	Location LED status The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.
Chipsets	
GAC	GAC status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (contact a certified service engineer).• Failed: Failure
DC-to-DC Converters	
Redundancy	Indicates the redundancy statuses of DC-to-DC converters 00 and 01. <ul style="list-style-type: none">• Redundant: The converters are redundant.• [Non-redundant: Sufficient Resources]: The converters have lost redundancy, but are sufficient for system operation.• [Non-redundant: Insufficient Resources]: The converters have lost redundancy and are insufficient for system operation.

Item		Description
DDC#00 to DDC#01		DC-to-DC converter status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Failed: Failure • Configuration error: Configuration error
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.44 Button in the [XAI#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Status Clear	Clears the error status of the XAI.

(1) Menu operation

[System] → [System Interconnect] → [XAI#x]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the XAI.
- 2 Click the [OK] button in the dialog box to clear the error status of the XAI.
The error status is cleared.
To not clear the error status of the XAI, click the [Cancel] button in the dialog box.

5.2.17.2 [XDI#x] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [XDI#x] window allows you to view the statuses of the XDIx boards installed on a PRIMEQUEST series machine, clear the error status, and set location LEDs.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

System Partition Switch User Administration Network Configuration Maintenance Logout

>System >System Interconnect >XDI#0

XDI#0 Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	On
Part Number	CA06501-D132 A1
Serial Number	FJ04460000
Location LED	Off On Off Blink

Chipsets

GDX#0	OK
GDX#1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+12VL	11.53 V	-/- V	-/- V
+3.3VL	3.32 V	3.04/ 3.56 V	2.14/- V
+2.5V	2.49 V	2.30/ 2.70 V	1.62/- V
+1.2V	1.20 V	1.10/ 1.35 V	0.78/- V

Status Clear

Figure 5.29 [XDI#x] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.45 Displayed and setting items in the [XDI#x] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	XDI board status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Degraded: Component failure. (The faulty component can be isolated to continue operation.) • Failed: Failure
Power Status	XDI board power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode

Item	Description
Part Number	XDI board part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	XDI board serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	Location LED status The three light statuses are as follows: <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

Chipsets

GDX#0 to GDX#1	GDX status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: Operating but requires maintenance (contact a certified service engineer). • Failed: Failure
----------------	--

DC-to-DC Converters

DDC Redundancy	Indicates the redundancy statuses of DC-to-DC converters 00 and 01. <ul style="list-style-type: none"> • Redundant: The converters are redundant. • [Non-redundant: Sufficient Resources]: The converters have lost redundancy, but are sufficient for system operation. • [Non-redundant: Insufficient Resources]: The converters have lost redundancy and are insufficient for system operation.
DDC#00 to DDC#01	DC-to-DC converter status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Failed: Failure • Configuration error: Configuration error

Voltage

Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.46 Button in the [XDI#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Status Clear	Clears the error status of the XDI.

(1) Menu operation

[System] → [System Interconnect] → [XDI#x]

(2) GUI operation

- 1 Click the [Status Clear] button.

A confirmation dialog box opens for confirmation to clear the error status of the XDI.

To not clear the error status of the XDI, click the [Cancel] button in the dialog box.

5.2.18 Other Boards menu

The [Other Boards] menu consists of the following menus:

- [BP]
- [CPCB]
- [KVM]
- [FANBP]
- [IOBP]
- [OP-Panel]
- [PDB]

This section describes the window formats and operating methods of these menus.

5.2.18.1 [BP] window (PRIMEQUEST 520A/520/420)

The [BP] window allows you to view the status of the BP and control the BP boards.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

System Partition User Administration Network Configuration Maintenance Logout

>System >Other Boards >BP

BP Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	On
Part Number	CA21336-B61X 002AA
Serial Number	PP0531W016

Chipsets

GAC#0	OK
GAC#1	OK
GDX#0	OK
GDX#1	OK

DC-to-DC Converters

Redundancy	Redundant
DDC#00	OK
DDC#01	OK
DDC#02	OK

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+12VL	12.54 V	-/- V	-/- V
+3.3VL	3.35 V	3.04/ 3.57 V	2.14/- V
+2.5V	2.52 V	2.30/ 2.70 V	1.62/- V
+1.2V	1.26 V	1.10/ 1.30 V	0.78/- V
+5V	4.49 V	3.99/ 5.40 V	3.26/- V

Status Clear

Figure 5.30 [BP] window (PRIMEQUEST 520A/520/420)

Table 5.47 Displayed and setting items in the [BP] window
(PRIMEQUEST 520A/520/420)

Item	Description
Board Information	
Status	BP status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Warning: Operating but requires maintenance (contact a certified service engineer).• Degraded: Component failure. (The faulty component can be isolated to continue operation.)• Failed: Failure
Power Status	BP power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number	BP part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	BP serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Chipsets	
GAC#0 to GAC#1	GAC status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (contact a certified service engineer).• Failed: Failure
GDX#0 to GDX#1	GDX status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Operating but requires maintenance (contact a certified service engineer).• Failed: Failure
DC-to-DC Converters	
Redundancy	Indicates the redundancy statuses of DC-to-DC converters 00 to 02. <ul style="list-style-type: none">• Redundant: The converters are redundant.• [Non-redundant: Sufficient Resources]: The converters have lost redundancy, but are sufficient for system operation.• [Non-redundant: Insufficient Resources]: The converters have lost redundancy and are insufficient for system operation.

Item	Description
DDC#00 to #02	DC-to-DC converter status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Failed: Failure • Configuration error: Configuration error
Redundancy	Indicates the redundancy statuses of DC-to-DC converters 03 and 04. <ul style="list-style-type: none"> • Redundant: The converters are redundant. • [Non-redundant: Sufficient Resources]: The converters have lost redundancy, but are sufficient for system operation. • [Non-redundant: Insufficient Resources]: The converters have lost redundancy and are insufficient for system operation.
DDC#03, #04	DC-to-DC converter status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Failed: Failure • Configuration error: Configuration error

Voltage

Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.48 Button in the [BP] window (PRIMEQUEST 520A/520/420)

Button	Description
Status Clear	Clears the error status of the BP.

(1) Menu operation

[System] → [Other Boards] → [BP]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the BP.
- 2 Click the [OK] button in the dialog box to clear the error status of the BP.
The error status is cleared.
To not clear the error status of the BP, click the [Cancel] button in the dialog box.

5.2.18.2 [CPCB] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [CPCB] window allows you to view the statuses of the CPCB board and clear error status.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

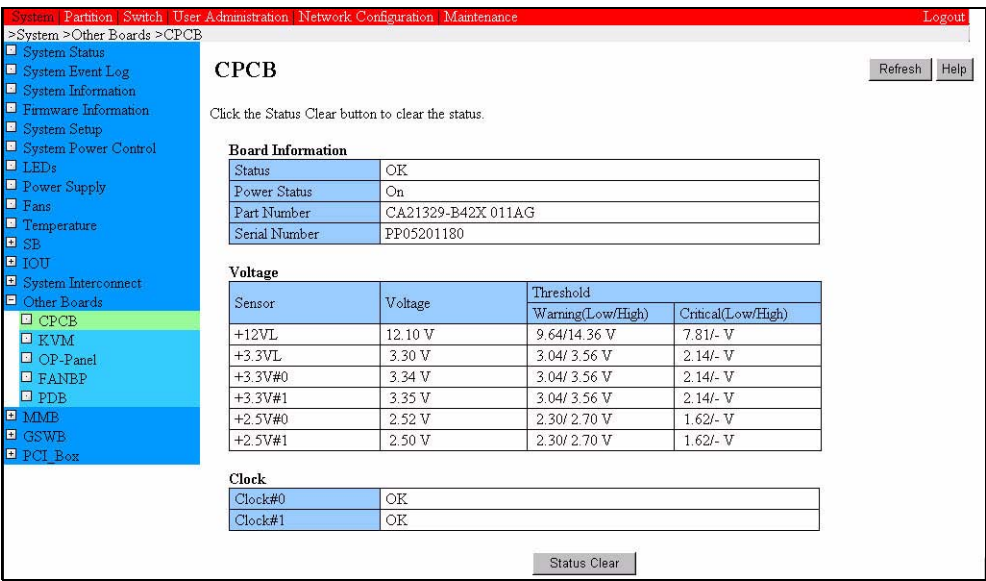


Figure 5.31 [CPCB] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.49 Displayed and setting items in the [CPCB] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	CPCB status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: Component failure. (The faulty component can be isolated to continue operation.)• Failed: Failure
Power Status	CPCB power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number	CPCB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item		Description
Serial Number		CPCB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.
Clock		
Clock#0 to Clock#1		System clock status: <ul style="list-style-type: none">• OK: Operating normally• Failed: Failure

Table 5.50 Button in the [CPCB] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Status Clear	Clears the error status of the CPCB.

(1) Menu operation

[System] → [Other Boards] → [CPCB]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the CPCB.
- 2 Click the [OK] button in the dialog box to clear the error status of the CPCB.
The error status is cleared.
To not clear the error status of the CPCB, click the [Cancel] button in the dialog box.

5.2.18.3 [KVM] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [KVM] window allows you to view the statuses of the KVM interface unit, clear error status, and set location LEDs.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

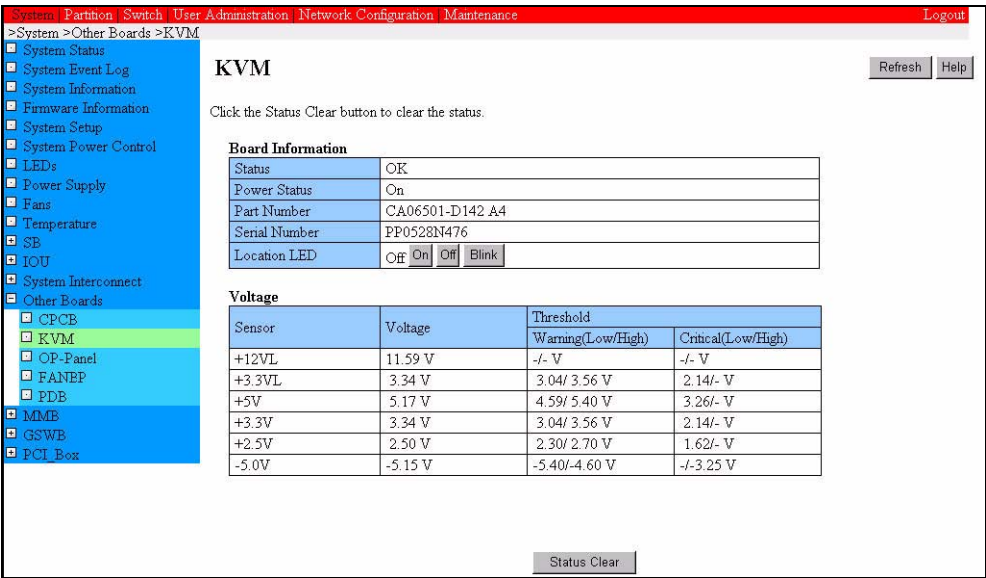


Figure 5.32 [KVM] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.51 Displayed and setting items in the [KVM] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	KVM status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Power Status	KVM power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number	KVM part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item	Description
Serial Number	KVM serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	Location LED status The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

Voltage

Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.52 Button in the [KVM] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Status Clear	Clears the error status of the KVM and attempts to use the KVM at the next reboot.

(1) Menu operation

[System] → [Other Boards] → [KVM]

(2) GUI operation

- 1 Click the [Status Clear] button.

A confirmation dialog box opens for confirmation to clear the error status of the KVM.

- 2 Click the [OK] button in the dialog box to clear the error status of the KVM.
The error status is cleared, and use of the KVM is attempted at the next reboot.

To not clear the error status of the KVM, click the [Cancel] button in the dialog box.

5.2.18.4 [FANBP] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [FANBP] window displays the FAN BP board status.

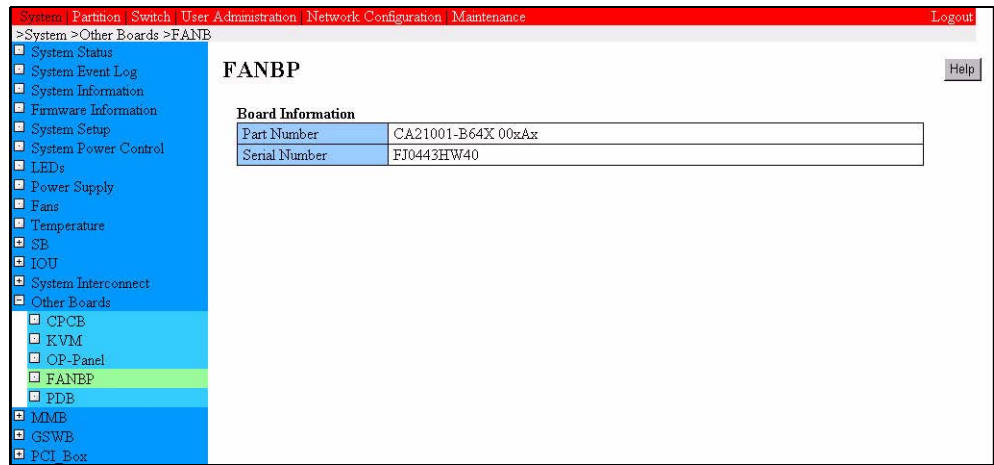


Figure 5.33 [FANBP] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.53 Displayed and setting items in the [FANBP] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Part Number	FANBP part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	FANBP serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

(1) Menu operation

[System] → [Other Boards] → [FANBP]

(2) GUI operation

None

5.2.18.5 [FANBP] window (PRIMEQUEST 520A/520/420)

The [FANBP] window displays the FAN BP board status.

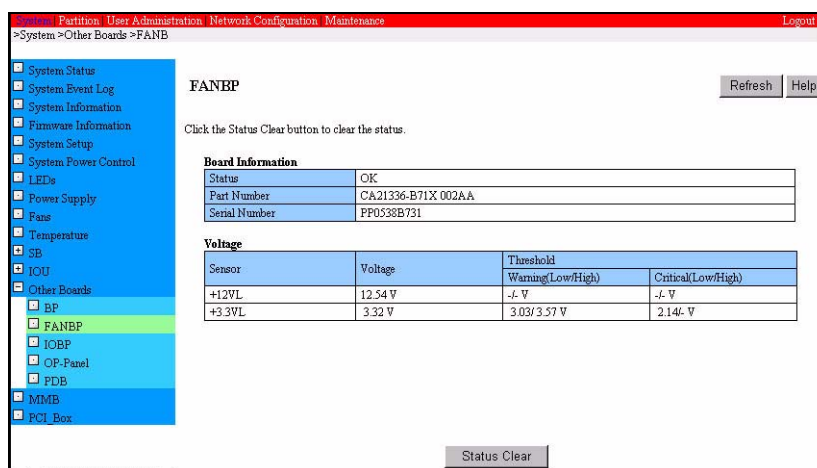


Figure 5.34 [FANBP] window (PRIMEQUEST 520A/520/420)

Table 5.54 Displayed and setting items in the [FANBP] window
(PRIMEQUEST 520A/520/420)

Item		Description
Board Information		
Status		FANBP status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Part Number		FANBP part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number		FANBP serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

(1) Menu operation

[System] → [Other Boards] → [FANBP]

(2) GUI operation

None

5.2.18.6 [IOBP] window (PRIMEQUEST 520A/520/420)

The [IOBP] window displays the IOBP board status.



Figure 5.35 [IOBP] window (PRIMEQUEST 520A/520/420)

Table 5.55 Displayed and setting items in the [IOBP] window (PRIMEQUEST 520A/520/420)

Item		Description
Board Information		
Status		IOBP status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Power Status		The IOBP power status is displayed as follows: <ul style="list-style-type: none">• On: Power is on.• Standby: The IOBP is in the standby state.
Part Number		IOBP part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number		IOBP serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

(1) Menu operation

[System] → [Other Boards] → [IOBP]

(2) GUI operation

None

5.2.18.7 [OP-Panel] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [OP-Panel] window allows you to view the statuses of the OP-Panel board, clear error status, and set location LEDs.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

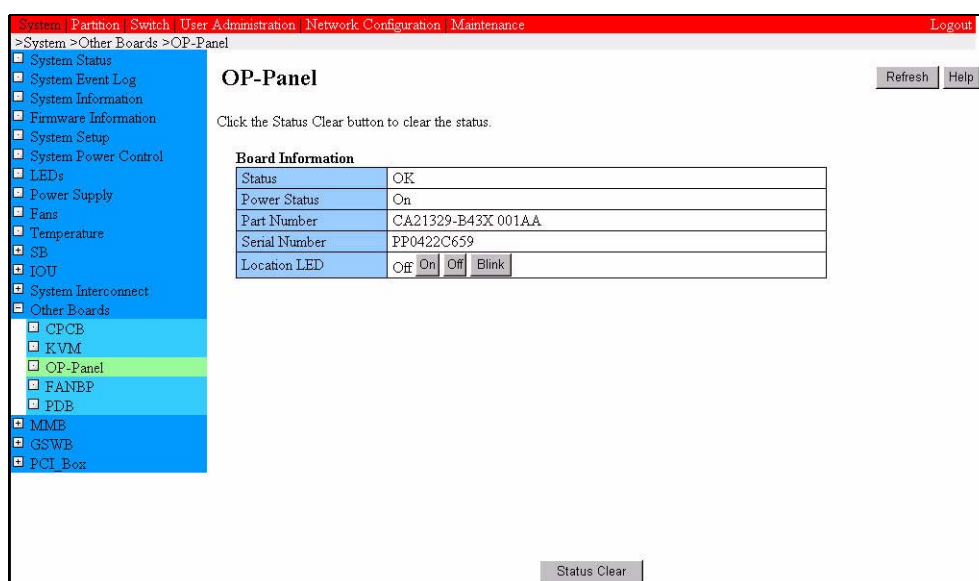


Figure 5.36 [OP-Panel] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.56 Displayed and setting items in the [OP-Panel] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	OP-Panel board status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Power Status	OP-Panel board power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number	OP-Panel board part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item	Description
Serial Number	OP-Panel board serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	Location LED status The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

Table 5.57 Button in the [OP-Panel] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Status Clear	Clears the error status of the OP-Panel board.

(1) Menu operation

[System] → [Other Boards] → [OP-Panel]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the OP-Panel board.
- 2 Click the [OK] button in the dialog box to clear the error status of the OP-Panel board.
To not clear the error status of the OP-Panel board, click the [Cancel] button in the dialog box.

5.2.18.8 [OP-Panel] window (PRIMEQUEST 520A/520/420)

The [OP-Panel] window allows you to view the statuses of the OP-Panel board, clear error status, and set location LEDs.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

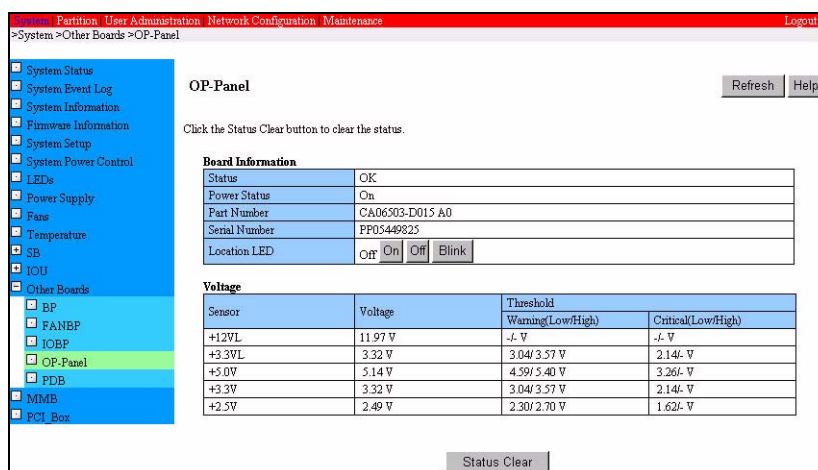


Figure 5.37 [OP-Panel] window (PRIMEQUEST 520A/520/420)

Table 5.58 Displayed and setting items in the [OP-Panel] window (PRIMEQUEST 520A/520/420)

Item	Description
Board Information	
Status	OP-Panel board status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Degraded: Component failure (The faulty component can be isolated to continue operation.) • Failed: Failure
Power Status	OP-Panel board power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Part Number	OP-Panel board part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	OP-Panel board serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item		Description
Location LED		Location LED status The three light statuses are as follows: <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.59 Button in the [OP-Panel] window (PRIMEQUEST 520A/520/420)

Button	Description
Status Clear	Clears the error status of the OP-Panel board.

(1) Menu operation

[System] → [Other Boards] → [OP-Panel]

(2) GUI operation

- 1 Click the [Status Clear] button.

A confirmation dialog box opens for confirmation to clear the error status of the OP-Panel board.

- 2 Click the [OK] button in the dialog box to clear the error status of the OP-Panel board.

The error status is cleared.

To not clear the error status of the OP-Panel board, click the [Cancel] button in the dialog box.

5.2.18.9 [PDB] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [PDB] window displays the PDB board status.

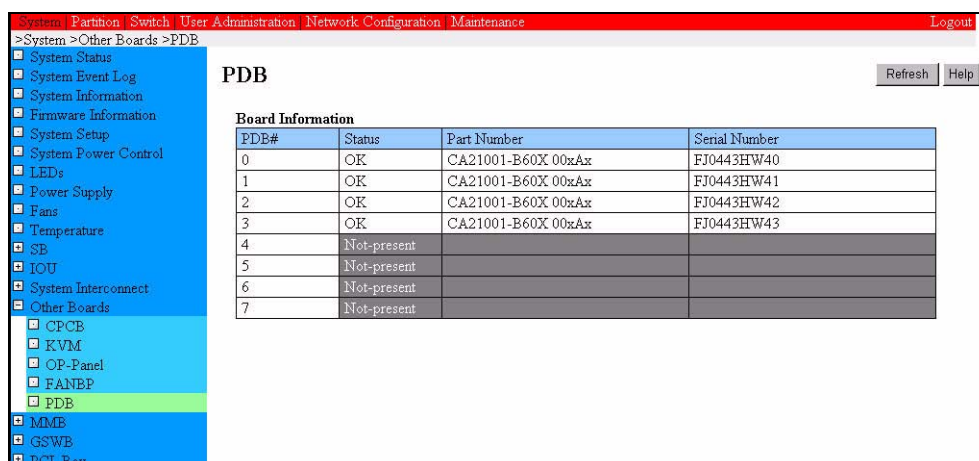


Figure 5.38 [PDB] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.60 Displayed and setting items in the [PDB] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Board Information	
Status	PDB status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: PDB component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Part Number	PDB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	PDB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

(1) Menu operation

[System] → [Other Boards] → [PDB]

(2) GUI operation

None

5.2.18.10 [PDB] window (PRIMEQUEST 520A/520/420)

The [PDB] window displays the PDB board status.

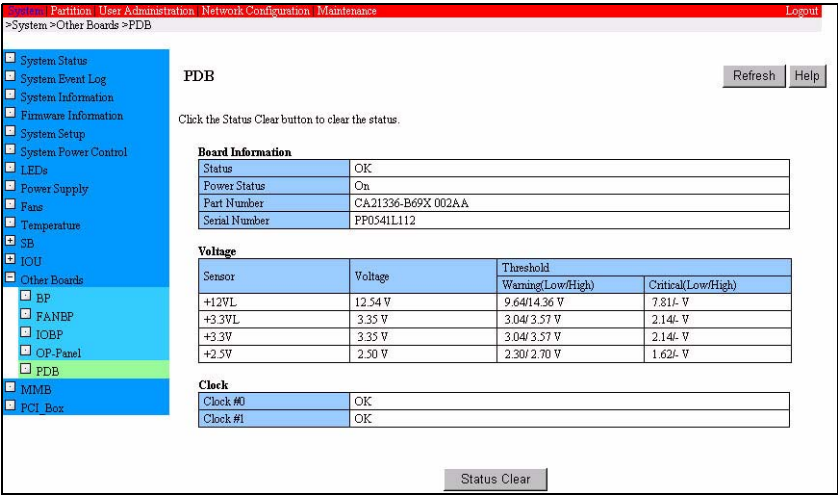


Figure 5.39 [PDB] window (PRIMEQUEST 520A/520/420)

Table 5.61 Displayed and setting items in the [PDB] window (PRIMEQUEST 520A/520/420)

Item		Description
Board Information		
Status		PDB status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Degraded: PDB component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Part Number		PDB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number		PDB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Item	Description
Clock	
Clock#0 to Clock#1	System clock status: <ul style="list-style-type: none">• OK: Operating normally• Failed: Failure

(1) Menu operation

[System] → [Other Boards] → [PDB]

(2) GUI operation

None

5.2.19 MMB menu (PRIMEQUEST 580A/540A/580/540/480/440)

The [MMB] menu consists of the following two menus for the respective MMB units:

- [MMB#0] to [MMB#1]

This section describes these menus collectively as [MMB#x] because they share the same window format and operating methods.

5.2.19.1 [MMB#x] window

The [MMB#x] window displays MMB information, and the location LED can be specified from this window.

The screenshot shows the [MMB#0] window in the web UI. The left sidebar contains a tree view with the following items: System, Partition, Switch, User Administration, Network Configuration, Maintenance, >System >MMB >MMB#0, System Status, System Event Log, System Information, Firmware Information, System Setup, System Power Control, LEDs, Power Supply, Fans, Temperature, SB, IOU, System Interconnect, Other Boards, MMB, MMB#0, MMB#1, GSWB, and PCI_Box. The main content area is titled "MMB#0" and includes a "Help" button. Below the title, there is a message: "Click the Apply Button to apply all changes." The main content area contains a table with the following data:

Status	OK
Role	Active
Part Number	CA21329-B11X 013AK
Serial Number	PP0518Y393
MAC Address	User/Maintenance port 00:00:00:00:00:00
REMCS port	00:00:00:00:00:00
Firmware Version	1.10
Location LED	Off On Off Blink
Reset MMB	<input type="checkbox"/> Reset the MMB All existing network connections will be lost. You will need to login again.
Switch Over to MMB	<input type="checkbox"/> Switch Over to another MMB All existing network connections will be lost. You will need to login again.
Enable/Disable	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

Below the table, there is a "Voltage" section with a table showing sensor voltage and thresholds:

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5VL	4.96 V	4.59/ 5.40 V	3.26/- V
+3.3VL	3.32 V	3.04/ 3.56 V	2.14/- V
+2.5VL	2.50 V	2.30/ 2.70 V	1.62/- V
+1.8VL	1.80 V	1.65/ 1.94 V	1.17/- V

At the bottom of the window, there are "Apply" and "Cancel" buttons.

Figure 5.40 [MMB#x] window (PRIMEQUEST 580A/540A)

The screenshot shows the 'MMB#0' configuration window. On the left is a navigation tree with options like System Status, System Event Log, System Information, Firmware Information, System Setup, System Power Control, LEDs, Power Supply, Fans, Temperature, SB, IOU, System Interconnect, Other Boards, MMB (selected), MMB#0 (selected), MMB#1, GSWB, and PCI_Box. The main area displays the following information:

MMB#0

Click the Apply Button to apply all changes.

Status	OK
Role	Active
Part Number	CA21329-B11X 013AK
Serial Number	PP0518Y393
MAC Address	00:0B:5D:70:00:91
Firmware Version	1.10
Location LED	Off On Off Blink
Reset MMB	<input type="checkbox"/> Reset the MMB All existing network connections will be lost. You will need to login again.
Switch Over to MMB	<input type="checkbox"/> Switch Over to another MMB All existing network connections will be lost. You will need to login again.
Enable/Disable	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

Voltage


Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+5VL	4.96 V	4.59/ 5.40 V	3.26/- V
+3.3VL	3.32 V	3.04/ 3.56 V	2.14/- V
+2.5VL	2.50 V	2.30/ 2.70 V	1.62/- V
+1.8VL	1.80 V	1.65/ 1.94 V	1.17/- V

Buttons: Apply, Cancel

Figure 5.41 [MMB#x] window (PRIMEQUEST580/540/480/440)

Table 5.62 Displayed and setting items in the [MMB#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Status	MMB status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Warning: In the warning state (a failure will probably occur). • Degraded: Component failure (The faulty component can be isolated to continue operation.) • Failed: Failure
Role	MMB operation status: <ul style="list-style-type: none"> • Active: Operating • Standby: Standby mode • Disabled: Set to the non-operational status
Part Number	MMB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	MMB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item		Description
MAC address (PRIMEQUEST 580/540/ 480/440)		MAC address of the MMB management port.
MAC Address (PRIMEQUEST 580A/540A)	User/Main- tenance port	MAC address of the MMB management port.
	REMCS port	MAC address of the MMB REMCS port
Firmware Version		MMB firmware version
Location LED		<p>Location LED status</p> <p>The three light statuses are as follows:</p> <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking <p>The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.</p>
Reset MMB		<p> CAUTION</p> <p>Guarantee of operation</p> <p>Do not use this field. Doing so may lead to a malfunction and result in data corruption or a device failure.</p> <p>Check this check box to reset the MMB.</p> <p>If this check box is checked, the [Switch Over to MMB] check box described below cannot be checked.</p>
Switch Over to MMB		<p>Check this check box to toggle between the active and standby modes of the MMB.</p> <p>If this check box is checked, the [Reset MMB] check box described above cannot be checked.</p> <p>Note: A setting can be made for this item only when the following conditions are satisfied; otherwise, do not change the setting:</p> <ul style="list-style-type: none"> • "Normal" is displayed for [Status] in the information frame in the MMB Web-UI window. • "OK" is displayed for MMB#0 and MMB#1 in the [System Status] window (MMB Web-UI window). • The Alarm LEDs of MMB#0 and MMB#1 are OFF. <p>Additional note: This field is displayed only if two MMBs are installed.</p>


Item		Description
Enable/Disable		 Guarantee of operation Do not use this field. Doing so may lead to a malfunction and result in data corruption or a device failure. This field can be used to enable and disable the MMB. <ul style="list-style-type: none">• Enable: Places the added MMB in standby state.• Disable: Disables the MMB. When an MMB is added to the PRIMEQUEST-series machine, its initial status is disabled. The MMB already operating in the machine has the active status. To place the added MMB in the standby status, enable it by using this field.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.63 Buttons in the [MMB#x] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Apply	Specify control information, and click the [Apply] button to set the specified information.
Cancel	Click the [Cancel] button to revert to the original settings.

(1) Menu operation

[System] → [MMB] → [MMB#x]

(2) GUI operation

- 1 Specify information to change the MMB status, and click the [Apply] button.
The specified information is then set to change the MMB status accordingly.

5.2.20 MMB menu (PRIMEQUEST 520A/520/420)

This section explains the [MMB] window and operating procedure.

5.2.20.1 [MMB] window (PRIMEQUEST 520A/520/420)

The [MMB] window displays MMB information, and the location LED can be specified from this window.

The screenshot shows the MMB window with the following data:

Sensor	Voltage	Threshold Warning(Low/High)	Critical(Low/High)
+5VL	4.99 V	4.60/ 5.41 V	3.25/- V
+3.3VL	3.32 V	3.04/ 3.57 V	2.14/- V
+2.5VL	2.50 V	2.30/ 2.70 V	1.62/- V
+1.8VL	1.81 V	1.65/ 1.94 V	1.15/- V


Figure 5.42 [MMB] window (PRIMEQUEST 520A)

The screenshot shows the MMB window with the following data:

Sensor	Voltage	Threshold Warning(Low/High)	Critical(Low/High)
+5VL	4.99 V	4.60/ 5.41 V	3.25/- V
+3.3VL	3.32 V	3.04/ 3.57 V	2.14/- V
+2.5VL	2.50 V	2.30/ 2.70 V	1.62/- V
+1.8VL	1.81 V	1.65/ 1.94 V	1.15/- V

Figure 5.43 [MMB] window (PRIMEQUEST 520/420)

Table 5.64 Displayed and setting items in the [MMB] window
(PRIMEQUEST 520A/520/420)

Item		Description
Status		MMB status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Warning: Operating but requires maintenance (contact a certified service engineer).• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Failed: Failure
Part Number		MMB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number		MMB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
MAC address (PRIMEQUEST 520/420)		MAC address of the MMB management port.
MAC Address (PRIMEQUEST 520A)	User/Main- tenance port	MAC address of the MMB management port.
	REMCS port	MAC address of the MMB REMCS port
Firmware Version		MMB firmware version
Location LED		Location LED status The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.
Reset MMB		 Guarantee of operation Do not use this field. Doing so may lead to a malfunction and result in data corruption or a device failure. Check this check box to reset the MMB.
Voltage		
Sensor		Voltage sensor type

Item		Description
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.65 Buttons in the [MMB] window (PRIMEQUEST 520A/520/420)

Button	Description
Apply	Specify control information, and click the [Apply] button to set the specified information.
Cancel	Click the [Cancel] button to revert to the original settings.

(1) Menu operation

[System] → [MMB]

(2) GUI operation

- 1 Specify information to change the MMB status, and click the [Apply] button.
The specified information is then set to change the MMB status accordingly.

5.2.21 GTHB menu (PRIMEQUEST 580A/540A/580/540)

The [GTHB] menu consists of the following two menus for the respective GTHB units:

- [GTHB#0] to [GTHB#1]

This section describes these menus collectively as [GTHB#x] because they share the same window format and operating methods.

5.2.21.1 [GTHB#x] window

The [GTHB#x] window displays the status of the GTHB#x board, and the board can be controlled and its location LED can be specified from this window.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

The screenshot shows the 'GTHB#0' window in the MMB system menu. The window has a red title bar with 'System Partition User Administration Network Configuration Maintenance' and a 'Logout' button. The left sidebar contains a tree view with 'GTHB#0' selected. The main content area displays the following information:

GTHB#0 Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	Standby
Part Number	CA21346-B30X 002AB
Serial Number	PP06356308
Location LED	Off On Off Blink

Port status

Port	Status	IOU#
0-A	OK	0
0-B	OK	0
1-A	OK	1
1-B	OK	1
2-A	OK	2
2-B	OK	2
3-A	OK	3
3-B	OK	3
4-A	OK	4A
4-B	OK	4B
5-A	OK	5A
5-B	OK	5B
6-A	OK	6A
6-B	OK	6B
7-A	OK	7A
7-B	OK	7B

Chip

PIC	OK
-----	----

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+3.3VL	3.32 V	3.04/ 3.56 V	2.14/- V
+2.5V	- V	2.30/ 2.70 V	1.62/- V

Status Clear

Figure 5.44 [GTHB#x] window

Table 5.66 Displayed and setting items in the [GTHB#x] window

Item	Description
Board Information	
Status	<p>GTHB status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Warning: Warning status (A problem will possibly occur.) • Degraded: Component failure (The faulty component can be isolated to continue operation.) • Failed: Failure • Configuration error: GSWB and GTHB are installed in the same unit.
Power Status	<p>GTHB board power status:</p> <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Part Number	<p>GTHB part number</p> <p>Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.</p>
Serial Number	<p>GTHB serial number</p> <p>Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.</p>
Location LED	<p>Location LED status</p> <p>The three light statuses are as follows:</p> <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking <p>The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.</p>
Port status	
Port	GTHB Port number
Status	<p>GTHB Port status</p> <ul style="list-style-type: none"> • OK: The GTHB Port is operating normally. • Warning: The GTHB Port is in the warning state • Failed: The GTHB failed.
IOU#	IO Unit number for GTHB Port
Chip	
PIC	<p>Displays a PIC controller</p> <ul style="list-style-type: none"> • OK: The PIC controller is operating normally. • Failed: The PIC controller failed.
Voltage	
Sensor	Voltage sensor type

Item		Description
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.67 Button in [GTHB#x] window

Button	Description
Status Clear	Clears the error status of the GSWB.

(1) Menu operation

[System] → [GTHB] → [GTHB#x]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the GTHB.
- 2 Click the [OK] button in the dialog box to clear the error status of the GTHB.
The error status is cleared.
To not clear the error status of the GTHB, click the [Cancel] button in the dialog box.

5.2.22 GSWB menu (PRIMEQUEST 580A/540A/580/540/480/440)

The [GSWB] menu consists of the following two menus for the respective GSWB units:

- [GSWB#0] to [GSWB#1]

This section describes these menus collectively as [GSWB#x] because they share the same window format and operating methods.

5.2.22.1 [GSWB#x] window

The [GSWB#x] window displays the status of the GSWB#x board, and the board can be controlled and its location LED can be specified from this window.

Remarks: If the user is granted no appropriate privilege, the [Status Clear] button is not displayed.

System Partition Switch User Administration Network Configuration Maintenance Logout

>System >GSWB >GSWB#0

GSWB#0 Refresh Help

Click the Status Clear button to clear the status.

Board Information

Status	OK
Power Status	On
Part Number	CA06501-D172 A1
Serial Number	PP0528N784
Location LED	Off On Off Blink

Voltage

Sensor	Voltage	Threshold	
		Warning(Low/High)	Critical(Low/High)
+3.3V	3.32 V	3.04/ 3.56 V	2.14/- V
+3.3VL	3.30 V	3.04/ 3.56 V	2.14/- V
+2.5V	2.50 V	2.30/ 2.70 V	1.62/- V
+1.8V	1.81 V	1.65/ 1.94 V	1.17/- V
+1.25V	1.25 V	1.15/ 1.35 V	0.81/- V

Status Clear

Figure 5.45 [GSWB#x] window

Table 5.68 Displayed and setting items in the [GSWB#x] window

Item		Description
Board Information		
Status		GSWB status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Warning: Warning status (A problem will possibly occur.)• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Failed: Failure• Configuration error: GSWB and GTHB are installed in the same unit.
Power Status		GSWB power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number		GSWB part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number		GSWB serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED		Location LED status The three light statuses are as follows: <ul style="list-style-type: none">• On: Currently lit• Off: Currently not lit• Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.
Voltage		
Sensor		Voltage sensor type
Voltage		Current voltage reading
Threshold	Warning (Low/High)	Lower and upper limits of the warning-level voltage. If no limit is set, "-" is displayed.
	Critical (Low/High)	Lower and upper limits of the critical-level voltage. If no limit is set, "-" is displayed.

Table 5.69 Button in [GSWB#x] window

Button	Description
Status Clear	Clears the error status of the GSWB.

(1) Menu operation

[System] → [GSWB] → [GSWB#x]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the GSWB.
- 2 Click the [OK] button in the dialog box to clear the error status of the GSWB.
The error status is cleared.
To not clear the error status of the GSWB, click the [Cancel] button in the dialog box.

5.2.23 PCI_Box menu

The [PCI_Box] menu consists of the following menus for the respective PCI Box units:

- [PCI_Box#0] to [PCI_Box#7]

The menu for PCI_Boxes that have not been mounted are not displayed.

This section describes these menus collectively as [PCI_Box#x] because they share the same window format and operating methods.

Remarks: One PCI_Box can be mounted in the PRIMEQUEST 520A/520/420.

5.2.23.1 [PCI_Box#x] window

The [PCI_Box#x] window displays the status of a PCI box connected to the PRIMEQUEST-series machine.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- Garbled characters may be displayed in [PCI Slots] in this window. This can happen when a card has been added after hardware reconfiguration which contains one or more unsupported characters in its identifying information. The garbled characters will no longer be displayed after about 30 minutes, when the window display is refreshed, and [PCI Slots] can then be read.

System Partition Switch User Administration Network Configuration Maintenance Logout

>System>PCI_Box>PCI_Box#0

Refresh Help

PCI_Box#0

Chipset

#	Chip	Status
0	PEX	OK
1	PEX	OK

Voltage

#	Sensor	Voltage	Threshold Warning(Low/High)	Critical(Low/High)
0	PEX#0 +5V	5.15 V	4.59/ 5.41 V	3.25/- V
	PEX#0 +3.3V	3.32 V	3.03/ 3.57 V	2.14/- V
	PEX#0 +12V	- V	11.02/12.98 V	7.81/- V
	PEX#0 +5V	- V	4.59/ 5.41 V	3.24/- V
	PEX#0 +3.3V	- V	3.03/ 3.57 V	2.14/- V
	PEX#0 +1.5V	- V	1.38/ 1.62 V	0.98/- V
	PEX#0 +1.0V	- V	0.95/ 1.09 V	0.66/- V
1	PEX#1 +5V	5.15 V	4.59/ 5.41 V	3.25/- V
	PEX#1 +3.3V	3.34 V	3.03/ 3.57 V	2.14/- V
	PEX#1 +12V	- V	11.02/12.98 V	7.81/- V
	PEX#1 +5V	- V	4.59/ 5.41 V	3.24/- V
	PEX#1 +3.3V	- V	3.03/ 3.57 V	2.14/- V
	PEX#1 +1.5V	- V	1.38/ 1.62 V	0.98/- V
	PEX#1 +1.0V	- V	0.95/ 1.09 V	0.66/- V

Status Clear

Figure 5.46 [PCI_Box#x] window (2/2)

Table 5.70 Displayed items in the [PCI_Box#x] window

Item	Description
PCI_Box Information	
Status	PCI_Box status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Warning: Warning status (A problem will possibly occur.) • Degraded: Component failure (The faulty component can be isolated to continue operation.) • Failed: Failure
Power Status	Power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Power Supply Redundancy	Redundancy status of the IO_PSU: <ul style="list-style-type: none"> • Redundant: Redundancy in the PSU configuration is maintained. • [Non-Redundant: Sufficient Resources]: The IO_PSU redundancy has been lost, but the fans are sufficient for system operation. • [Non-Redundant: Insufficient Resources]: The IO_PSU redundancy has been lost and the fans are insufficient for system operation.

Item	Description
Fan Speed Mode	Fan speed mode: <ul style="list-style-type: none"> • Normal • High
Fan Redundancy	Fan redundancy status: <ul style="list-style-type: none"> • Redundant: Fan redundancy is maintained. • [Non-Redundant: Sufficient Resources]: Fan redundancy has been lost, but there are enough fans to continue system operation. • [Non-Redundant: Insufficient Resources]: Fan redundancy has been lost, and there are not enough fans to continue system operation.
Part Number	PCI_Box part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	PCI_Box serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Location LED	PCI_Box location LED display status The three light statuses are as follows: <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.

Power Supply

IO_PSU#	IO_PSU identification name
Status	IO_PSU status: <ul style="list-style-type: none"> • OK: Operating normally • Not present: Not installed • Failed: Failure • Predictive Fail: Failure expected • A/C Lost: Power failure
Power Status	IO_PSU power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Part Number	IO_PSU part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item	Description
Serial Number	IO_PSU serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Fan

FAN#	Fan identification name
Status	Status of a FAN indicated in [FAN#]: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Failed: Failure
Fan speed	Fan speed
Threshold	Upper limit of the fan speed

Temperature

Sensor	Temperature sensor identification status
Status	Temperature sensor status: <ul style="list-style-type: none">• OK: Operating normally• Not-present: Not installed• Warning: Warning status• Critical: Critical status
Temperature	Current temperature sensor reading
Threshold Warning (Low/High)	Temperature limits stored on the temperature sensor (lower and upper limits of the warning-level temperature)
Threshold Critical (Low/High)	Temperature limits stored on the temperature sensor (lower and upper limits of the critical-level temperature)

Unit information

#	PCIU/PEXU number
Type	Installed unit: <ul style="list-style-type: none">• PCIU• PEXU
Status	PCIU/PEXU status: <ul style="list-style-type: none">• OK: Operating normally• Not present: Not installed• Warning: Warning status (A problem will possibly occur.)• Failed: Failure
Power Status	PCIU/PEXU power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Part Number	PCIU/PEXU part number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.
Serial Number	PCIU/PEXU serial number Notes: If "Read Error" is displayed, contact a Fujitsu certified service engineer.

Item	Description
Location LED	<p>PCIU/PEXU location LED display status</p> <p>The three light states are as follows:</p> <ul style="list-style-type: none"> • On: Currently lit • Off: Currently not lit • Blink: Currently blinking <p>The LED can be turned on, turned off, or set to blink by clicking the [On], [Off], or [Blink] button, respectively.</p>

Cable Connection

#	PCIU/PEXU number
Type	<p>Installed unit:</p> <ul style="list-style-type: none"> • PCIU • PEXU
Status	<p>PCIU/PEXU status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Warning: Warning status (A problem will possibly occur.) • Failed: Failure
IOU# (PRIMEQUEST 580A/540A/580/540/ 480/440 only)	IO Unit number of an IO Unit connected to the PCIU/PEXU
Port#	IOU port number

PCI Slots

#	PCIU/PEXU number
PCI Slot#	PCI slot/PCI Express slot number
Power Status	<p>PCI slot/PCI Express slot power status:</p> <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
Status	<p>PCI slot/PCI Express slot status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Not-present: Not installed • Failed: Failure • Disabled: Set to the non-operational status
Frequency	<p>PCI slot/PCI Express slot frequency:</p> <ul style="list-style-type: none"> • PCI-X 100MHz • PCI-X 133MHz • PCI-Express x4 • PCI-Express x8
Seg#/Bus#/Dev#	Segment number, bus number, and device number of the PCI device
PCI Card Information	PCI card information (64 bytes, ASCII)

Item	Description
Chipset	
#	PCIU/PEXU number
Chip	Chip name: <ul style="list-style-type: none">• PXH• PEX
Status	Chipset status: <ul style="list-style-type: none">• OK: Operating normally• Warning: Warning status (A problem will possibly occur.)• Failed: Failure
Voltage	
#	Indicates the PCIU number.
Sensor	Indicates the voltage sensor name.
Voltage	Indicates the current voltage value.
Threshold	Indicates the threshold value or a "-" if neither the warning (Low/High) nor Critical (Low/High) threshold is set.

Table 5.71 Button in the [PCI_Box#x] window

Button	Description
Status Clear	Click the [Status Clear] button to display a confirmation dialog box. This window enables clearing of the PCI_Box statuses.

(1) Menu operation

[System] → [PCI_Box] → [PCI_Box#x]

(2) GUI operation

- 1 Click the [Status Clear] button.
A confirmation dialog box opens for confirmation to clear the error status of the PCI_Box.
- 2 Click the [OK] button in the dialog box to clear the error status of the PCI_Box.
The error status is cleared.
To not clear the error status of the PCI_Box, click the [Cancel] button in the dialog box.

5.3 Partition Menu

The [Partition] menu displays partition statuses in the PRIMEQUEST-series machine, and the partitions can be specified from this menu.

5.3.1 [Power Control] window

The [Power Control] window displays partitions that are assigned SBs, IO Units, and HomeIO Unit and are configured for booting. This window allows you to control power on individual partitions.

Note:

- A partition in which Windows is installed may not be shut down when the shutdown function is executed from the MMB Web-UI. To turn off power to the partition, use the Windows shutdown function. For details on the Windows shutdown function, see the Windows OS manual or [Section 3.4, "Remote Shutdown."](#)
- If the following condition occurs, contact your Fujitsu certified service engineer. Until recovery from this fault, do not execute [Reset] or [Force Power Off] for a partition.

[Power off], [Reset], or [Force Power Off] is executed for a partition or a shutdown is executed from the operating system, and, as a result, "Error" is displayed for [Status] in the MMB Web-UI window (information frame). Furthermore, an attempt to display the status of each component in the MMB Web-UI window causes "Read Error" to be displayed for [Part Number] or [Serial Number].

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.



Figure 5.47 [Power Control] window

If no bootable partition is available, the following window is displayed.

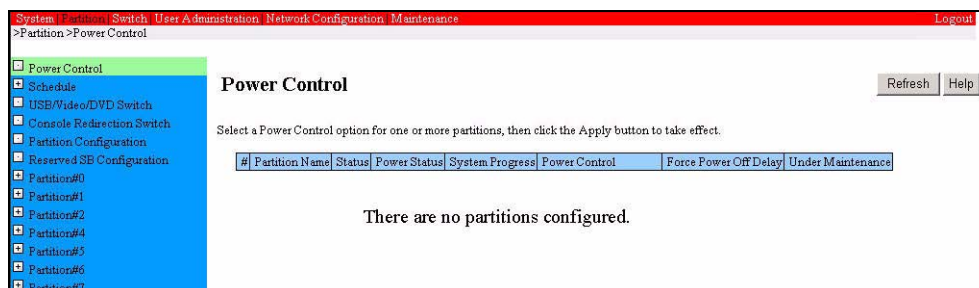


Figure 5.48 [Power Control] window (when no bootable partition is available)

This window remains displayed for a certain period after power to the cabinet is turned off. The [Power Control] column is grayed out to prevent selection in it (for power-on).

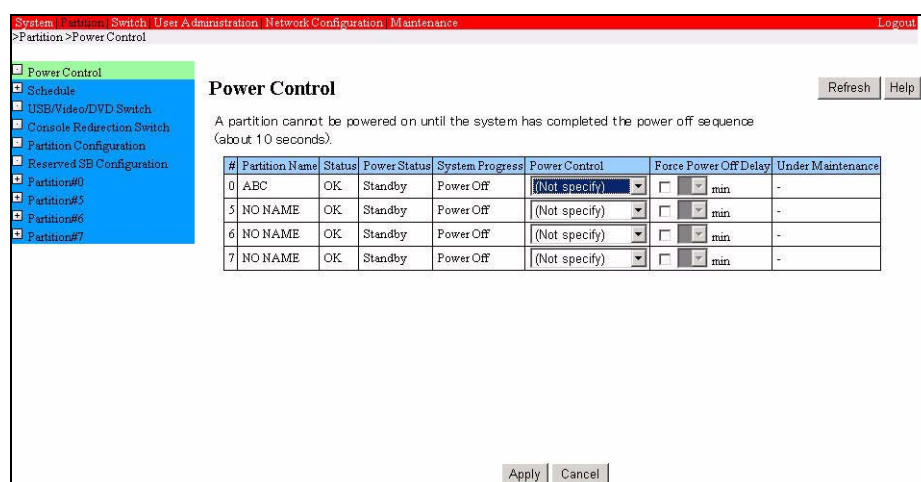


Figure 5.49 [Power Control] window (after power-off)

Table 5.72 Displayed and setting items in the [Power Control] window

Item	Description
#	Partition identification number. This window displays only the partitions with a registered SB or IO Unit.
Partition Name	Name assigned to a partition.
Status	Partition status: <ul style="list-style-type: none"> • OK: Operating normally • Degraded: Component failure (The faulty component can be isolated to continue operation.) • Warning: Warning status (A problem will possibly occur.) • Failed: Failure
Power Status	Partition power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
System Progress	Indicates the current status of the partition. <ul style="list-style-type: none"> • Power Off: The partition is in the power-off state. • Power On In Progress: The partition is executing power-on processing. • Reset: The partition is being reset. • POST XXXXh enter: The process identified by POST Code = XXXXh has started. • Boot: The partition is in one of the following states: <ul style="list-style-type: none"> - The partition is being booted. - PSA is not installed. - Installation is in progress. - Backup or restoration using Systemcast Wizard is in progress. • OS Running: The OS is running. • OS Shutdown: The OS is shutting down. • Panic: The partition is in panic state. • Power Off In Progress: The partition is executing power-off processing. • Check Stop: The partition is stopped. • Initiate soft-shutdown: The count-down for forced power-off has started.

Item	Description
Power Control	<p>Select a power control setting for each partition.</p> <p>The [Power On] selection is not displayed for a powered-on partition. Conversely, the [Power Off], [Reset], [INIT], [Power Cycle], and [Force Power Off] selections are not displayed for a powered-off partition.</p> <ul style="list-style-type: none">• Power On: Powers on a partition.• Power Off: Powers off a partition.• Power Cycle: Forcibly powers off a partition and powers it on again.• Reset: Resets a partition.• INIT: Generates an INIT interrupt in a partition.• Force Power Off: Forcibly powers off a partition.• Not specified: Issues no instruction to a partition. <p>Note:</p> <p>Executing INIT forcibly terminates applications running in the partition. Before executing INIT, stop important applications. Also, unmount unnecessary file systems.</p>
Force Power Off Delay	<p>Specify whether to forcibly power off a partition in the event that the partition is not powered off by a shutdown instruction issued to its OS during the power-off sequence.</p> <p>If [Power Off] is specified in [Power Control], the delay time can be specified (range: 1 to 9 minutes). The partition is powered off when the specified delay time has elapsed.</p> <p>The default setting is no forcible power-off.</p>
Under Maintenance	<p>Indication of whether a partition is under maintenance.</p> <p>If the partition is under maintenance, "Maintenance" is displayed. If it is not under maintenance, a hyphen (-) is displayed.</p> <p>Power control as described on this page is inhibited for any partition under maintenance.</p> <p>Remarks: The "Under Maintenance" item in the [Power Control] window may not be displayed on the PRIMEQUEST 500A/500-series machine, depending on the MMB firmware version. If it is not displayed, the number of the partition under maintenance is displayed beneath "Under Maintenance" in the information area.</p>

Table 5.73 Buttons in the [Power Control] window

Button	Description
Apply	To set the values specified in the power control items of partitions, click the [Apply] button. A confirmation dialog box then opens. Click [OK] in the dialog box to set the values.
Cancel	Click the [Cancel] button to revert to the original settings in the power control items of partitions.

(1) Menu operation

[Partition] → [Power Control]

(2) GUI operation

- 1 Select from the [Power Control] pulldown list and specify a power control item for each partition, and click the [Apply] button.
A confirmation dialog box opens.
- 2 Click the [OK] button to set the specified values.
Additional note: If specified power control action fails, a warning dialog box about that failure opens.

Remarks: If control of the specified power supply fails, a warning dialog box opens.

5.3.2 Schedule menu

The [Schedule] menu provides the [Schedule Control] window and [Schedule List] window. This section describes these windows and their operations.

5.3.2.1 [Schedule Control] window

Information for scheduled operation of a partition can be specified in the [Schedule Control] window.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

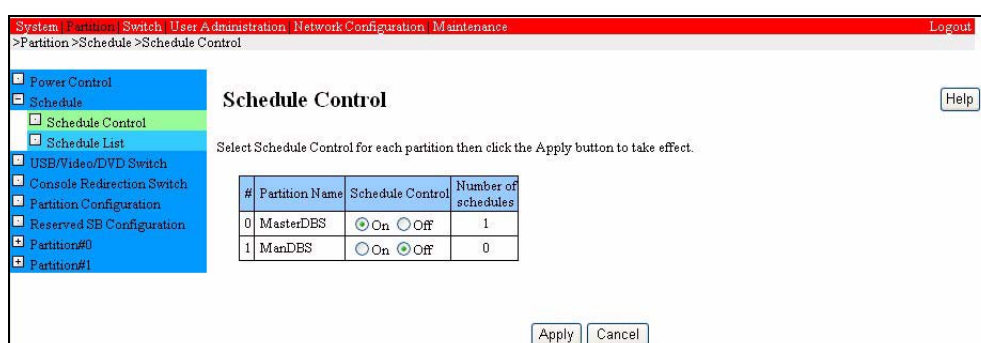


Figure 5.50 [Schedule Control] window

Table 5.74 Displayed and setting items in the [Schedule Control] window

Item	Description
#	Partition identification number. This window displays only the partitions with a registered SB or IO Unit.
Partition Name	Name assigned to a partition. Remarks: To make identification easier, specify the same name as the host name defined in the OS.
Schedule Control	Specify whether to enable scheduled operation of a partition: <ul style="list-style-type: none">• On: Enables scheduled operation.• Off: Disables scheduled operation.
Number of schedules	Number of schedules that have been set

Table 5.75 Buttons in the [Schedule Control] window

Button	Description
Apply	Sets the specified values for scheduled operation of the specified partitions.
Cancel	Reverts to the original settings for scheduled operation of each partition.

(1) Menu operation

[Partition] → [Schedule] → [Schedule Control]

(2) GUI operation

- Specify whether to enable scheduled operation of each partition by clicking a radio button, and click the [Apply] button.
The specified values for scheduled operation are then set.

5.3.2.2 [Schedule List] window

The power-on and power-off schedule for each partition can be set from the [Schedule List] window.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- The power-off function may not work in a partition in which Windows is installed as the OS.

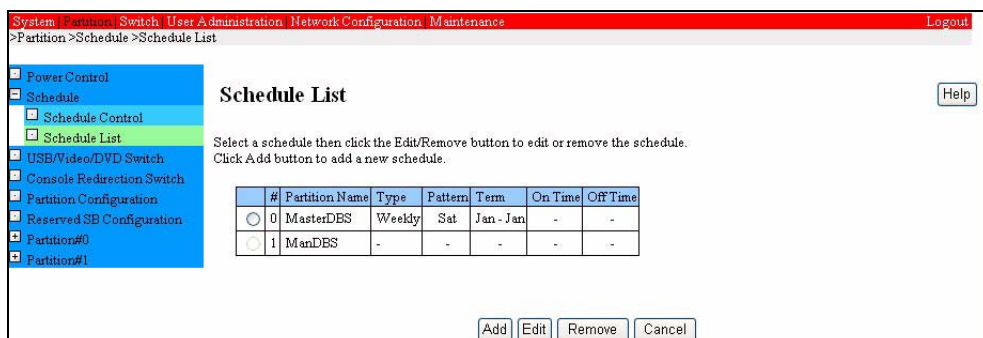


Figure 5.51 [Schedule List] window

This window displays the power-on and power-off schedule in sequence by partition number, and in each partition, the schedule is displayed in ascending order of the starting date of Term.

The title row in the table remains visible during scrolling.

Table 5.76 Displayed and setting items in the [Schedule List] window

Item	Description
(Radio buttons)	Select the schedule to be edited or deleted.
#	Partition identification number. This window displays only the partitions with a registered SB or IO Unit.
Partition Name	Name assigned to a partition. Remarks: To make identification easier, specify the same name as the host name defined in the OS.
Type	Schedule type specified for a partition: <ul style="list-style-type: none">• Daily: Daily operation• Weekly: Weekly operation• Monthly: Monthly operation• Special: Yearly operation on specific dates For details on the types, see Figure 5.52, "[Add Schedule] window." below.
Pattern	Schedule pattern, such as days of the week, the repetition cycle, and specific dates. For details on the patterns, see Figure 5.52, "[Add Schedule] window." below.
Term	Term as particular months or specified dates. For details on display of this item, see Figure 5.52, "[Add Schedule] window." below.
On Time	Power-on time for a partition. For details on display of this item, see Figure 5.52, "[Add Schedule] window." below.
Off Time	Power-off time for the partition. For details on display of this item, see Figure 5.52, "[Add Schedule] window." below.

Table 5.77 Buttons in the [Schedule List] window

Button	Description
Add	Click the [Add] button to display the [Add/Edit Schedule] window. A new schedule can be added from this window. For details, see Figure 5.52, "[Add Schedule] window." below.
Edit	Select an existing schedule by clicking its radio button, and click the [Edit] button to display the [Add/Edit Schedule] window. The existing schedule can be changed in this window. For details, see Figure 5.52, "[Add Schedule] window." below.
Remove	Select a schedule by clicking its radio button, click the [Remove] button, and a confirmation dialog box opens. Click the [OK] button to delete the schedule.
Cancel	Click the [Cancel] button to not change information and to cancel adding, changing, or deleting of any schedule.

(1) Menu operation

[Partition] → [Schedule] → [Schedule List]

(2) GUI operation

- Adding a new schedule
 - 1 Click the [Add] button.
The [Add Schedule] window is displayed.
 - 2 Add a schedule in the [Add Schedule] window.
- Changing a schedule
 - 1 To change a schedule, select the schedule by selecting its radio button in the column on the left end of the schedule list, and click the [Edit] button.
The [Edit Schedule] window is displayed.
 - 2 Edit the schedule in the [Edit Schedule] window.
- Deleting a schedule
 - 1 To delete a schedule, select the schedule by selecting its radio button in the column on the left end of the schedule list, and click the [Delete] button.
A confirmation dialog box opens.
 - 2 To delete the schedule, click the [OK] button in the dialog box.
The schedule is deleted.

[Add Schedule] window

A new power-on or power-off schedule for a partition can be added in the [Add Schedule] window.

The screenshot shows the 'Add Schedule' window. On the left is a sidebar with a tree view containing: Power Control, Schedule (selected), Schedule Control, Schedule List, USB/Video/DVD Switch, Console Redirection Switch, Partition Configuration, Reserved SB Configuration, Partition#0, and Partition#1. The main window has a title bar 'System / Partition / Switch / User Administration / Network Configuration / Maintenance' and a 'Logout' button. Below the title bar is a breadcrumb '>Partition>Schedule>Schedule List'. The main content area is titled 'Add Schedule' and includes a 'Help' button. A message says 'Select a partition and input a schedule, then click the Apply button to take effect.' Below this is a 'Partition' dropdown menu showing '#0: MasterDBS'. A table follows with columns 'Type', 'Pattern', and 'Term'. The 'Type' column has radio buttons for 'Daily', 'Weekly', 'Monthly', and 'Special'. The 'Pattern' column has input fields for each type. The 'Term' column has date selection fields. At the bottom are 'On Time' and 'Off Time' checkboxes with hour and minute dropdowns, and 'Apply' and 'Cancel' buttons.

Figure 5.52 [Add Schedule] window

Table 5.78 Displayed and setting items in the [Add Schedule] window

Item	Description
Partition	To add, edit, or delete a schedule, select a partition from the pulldown list.
Type	<p>For a schedule selected for the partition, specify one of the following schedule types:</p> <ul style="list-style-type: none">• Daily: Select [Daily] to schedule daily operation. Additionally, specify the start and end dates of this daily operation period.• Weekly: Select [Weekly] to schedule weekly operation, and specify the days of the week for scheduled operation. Additionally, specify the start and end months of this weekly operation period.• Monthly: Select [Monthly] to schedule monthly operation, and specify the start and end days in the month. Additionally, specify the start and end months of this monthly operation period.• Special: Select [Special] for scheduled operation on a specific date every year, and specify the date.
Pattern	Depending on the schedule type, specify a schedule pattern, such as days of the week, the repetition cycle, or a specific date.
Term	Depending on the schedule type and pattern, specify the months or dates of this period.

Item	Description
On Time	Specify whether the power-on processing is performed on a scheduled day of operation. For power-on processing, specify the power-on time of the partition. The setting range for the hour is 24 or less, and the setting range for the minutes is 00, 10, 20, 30, 40, or 50.
Off Time	Specify whether the power-off processing is performed on a scheduled day of operation. For power-off processing, specify the power-off time of the partition. The setting range for the hour is 24 or less, and the setting range for the minutes is 00, 10, 20, 30, 40, or 50.

Table 5.79 Buttons in the [Add Schedule] window

Button	Description
Apply	Sets the specified values for the schedule items of the partition.
Cancel	Reverts to the original settings in the schedule items.

(1) Menu operation

[Partition] → [Schedule] → [Schedule List] → [Add] button

(2) GUI operation

- 1 For the schedule to be set, select a partition from the pulldown list.
- 2 Select a schedule type by clicking a radio button, specify values in [Pattern], [Term], [On Time], and [Off Time], and click the [Apply] button.
The specified values for the schedule items of the partition are then set.

[Edit Schedule] window

An existing schedule of power-on or power-off for a partition can be changed in the [Edit Schedule] window.

The screenshot shows the 'Edit Schedule' window. On the left is a sidebar with a tree view containing: Power Control, Schedule, Schedule Control, Schedule List, USB/Video/DVD Switch, Console Redirection Switch, Partition Configuration, Reserved SB Configuration, Partition#0, and Partition#1. The 'Schedule List' item is selected. The main window has a title bar with 'System', 'Partition', 'Switch', 'User Administration', 'Network Configuration', 'Maintenance', and a 'Logout' button. Below the title bar is a breadcrumb '>Partition>Schedule>Schedule List'. The main content area is titled 'Edit Schedule' and includes a 'Help' button. A message says 'Select a partition and input a schedule, then click the Apply button to take effect.' Below this is a 'Partition' dropdown menu showing '#0: MasterDBS'. The schedule configuration is divided into three sections: 'Type', 'Pattern', and 'Term'. The 'Type' section has radio buttons for 'Daily', 'Weekly' (selected), 'Monthly', and 'Special'. The 'Pattern' section has checkboxes for days of the week (Sun, Mon, Tue, Wed, Thu, Fri, Sat) and a 'From'/'To' date range. The 'Term' section has a 'From'/'To' date range. At the bottom, there are checkboxes for 'On Time' and 'Off Time', each with 'Hour' and 'Min' dropdown menus. 'Apply' and 'Cancel' buttons are at the bottom right.

Figure 5.53 [Edit Schedule] window

Table 5.80 Displayed and setting items in the [Edit Schedule] window

Item	Description
Partition	To add, edit, or delete a schedule, select a partition from the pulldown list.
Type	For a schedule selected for the partition, specify one of the following schedule types: <ul style="list-style-type: none">• Daily: Select [Daily] to schedule daily operation. Additionally, specify the start and end dates of this daily operation period.• Weekly: Select [Weekly] to schedule weekly operation, and specify the days of the week for scheduled operation. Additionally, specify the start and end months of this weekly operation period.• Monthly: Select [Monthly] to schedule monthly operation, and specify the start and end days in the month. Additionally, specify the start and end months of this monthly operation period.• Special: Select [Special] for scheduled operation on a specific date every year, and specify the date.
Pattern	Depending on the schedule type, specify a schedule pattern, such as days of the week, the repetition cycle, or a specific date.
Term	Depending on the schedule type and pattern, specify the months or dates of this period.

Item	Description
On Time	Specify whether the power-on processing is performed on a scheduled day of operation. For power-on processing, specify the power-on time of the partition. The setting range for the hour is 24 or less, and the setting range for the minutes is 00, 10, 20, 30, 40, or 50.
Off Time	Specify whether the power-off processing is performed on a scheduled day of operation. For power-off processing, specify the power-off time of the partition. The setting range for the hour is 24 or less, and the setting range for the minutes is 00, 10, 20, 30, 40, or 50.

Table 5.81 Buttons in the [Edit Schedule] window

Button	Description
Apply	Sets the specified values for the schedule items of the partition.
Cancel	Reverts to the original settings in the schedule items.

(1) Menu operation

[Partition] → [Schedule] → [Schedule List] → [Edit] button

(2) GUI operation

- 1 For the schedule to be set, select a partition from the pulldown list.
- 2 Select a schedule type by clicking a radio button, specify values in [Pattern], [Term], [On Time], and [Off Time], and click the [Apply] button.
The specified values for the schedule items of the partition are then set.

5.3.3 [USB/Video/DVD Switch] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [USB/Video/DVD Switch] window allows you to specify to which partitions you want to connect the USB port, video unit, and DVD unit from the KVM interface unit.

This window displays partitions that have an assigned SB or IO Unit.

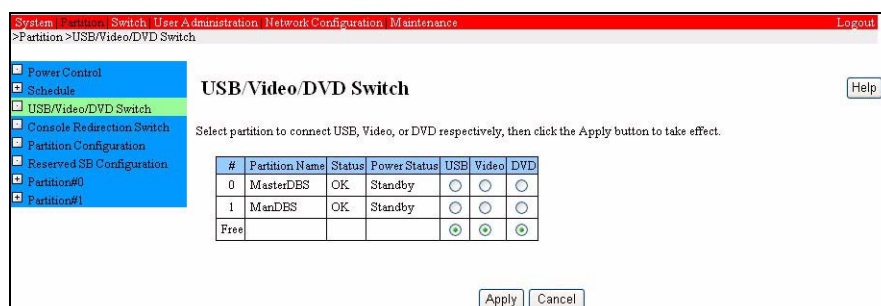


Figure 5.54 [USB/Video/DVD Switch] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.82 Displayed and setting items in the [USB/Video/DVD Switch] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
#	Partition identification number. This window displays only the partitions with a registered SB or IO Unit.
Partition Name	Name assigned to a partition.
Status	Partition status: <ul style="list-style-type: none">• OK: Operating normally• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Warning: Warning status (A problem will possibly occur.)• Failed: Failure
Power Status	Partition power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
USB	Select the partition to be connected to the KVM USB port by clicking its radio button.
Video	Select the partition to be connected to the KVM video port by clicking its radio button.
DVD	Select the partition to be connected to an internal DVD device by clicking its radio button.

Table 5.83 Buttons in the [USB/Video/DVD Switch] window

Button	Description
Apply	Select a partition for a connection by clicking its radio button, and click the [Apply] button to establish the connection.
Cancel	Click the [Cancel] button to revert to the original status without establishing a connection.

(1) Menu operation

[Partition] → [USB/Video/DVD Switch]

(2) GUI operation

- Connecting to a partition
 - 1 Select a partition for a [USB], [Video], or [DVD] connection by clicking its radio button, and click the [Apply] button.
A connection to the selected partition is then established.
- Not connecting to a partition
 - 1 To not establish a [USB], [Video], or [DVD] connection, select the respective radio button in the [Free] row, and click the [Apply] button.
The selected type of connection is not established to any partition.

5.3.4 [DVD Switch] window (PRIMEQUEST 520A/520/420)

The [DVD Switch] window allows you to specify to which partitions you want to connect the DVD unit.

This window displays partitions that have an assigned SB or IO Unit.

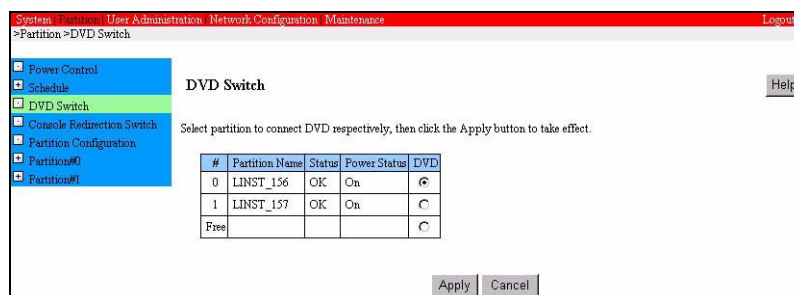


Figure 5.55 [DVD Switch] window (PRIMEQUEST 520A/520/420)

Table 5.84 Displayed and setting items in the [USB/Video/DVD Switch] window (PRIMEQUEST 520A/520/420)

Item	Description
#	Partition identification number. This window displays only the partitions with a registered SB or IO Unit.
Partition Name	Name assigned to a partition.
Status	Partition status: <ul style="list-style-type: none">• OK: Operating normally• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Warning: Warning status (A problem will possibly occur.)• Failed: Failure
Power Status	Partition power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
DVD	Select the partition to be connected to an internal DVD device by clicking its radio button.

Table 5.85 Buttons in the [DVD Switch] window

Button	Description
Apply	Select a partition for a connection by clicking its radio button, and click the [Apply] button to establish the connection.
Cancel	Click the [Cancel] button to revert to the original status without establishing a connection.

(1) Menu operation

[Partition] → [DVD Switch]

(2) GUI operation

- Connecting to a partition
 - 1 Select a partition for a [DVD] connection by clicking its radio button, and click the [Apply] button.
A connection to the selected partition is then established.
- Not connecting to a partition
 - 1 To not establish a [DVD] connection, select the respective radio button in the [Free] row, and click the [Apply] button.
The selected type of connection is not established to any partition.

5.3.5 [Console Redirection Switch] window

The [Console Redirection Switch] window can be used to connect serial output from a partition to the COM port of the home IO Unit or redirect it to the MMB.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

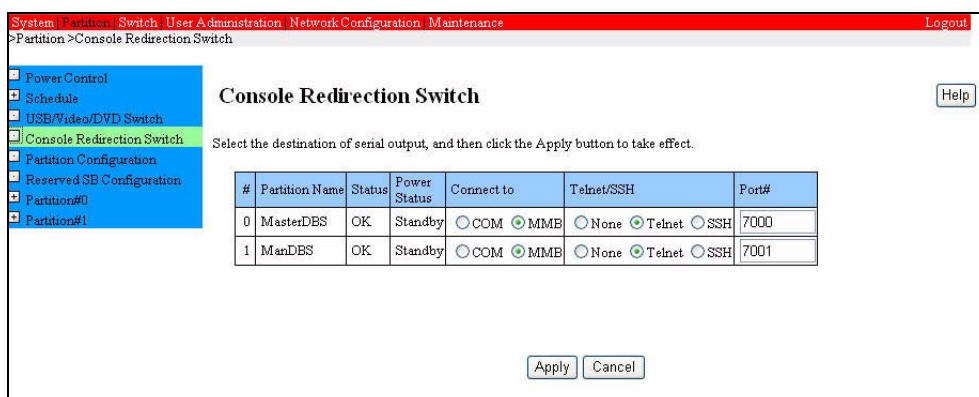


Figure 5.56 [Console Redirection Switch] window

Table 5.86 Displayed and setting items in the [Console Redirection Switch] window

Item	Description
#	Partition identification number.
Partition Name	Name assigned to a partition. Remarks: To make identification easier, specify the same name as the host name defined in the OS.
Status	Partition status: <ul style="list-style-type: none">• OK: Operating normally• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Warning: Warning status (A problem will possibly occur.)• Failed: Failure
Power Status	Partition power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Connect to	For serial output from the OS, select either a connection to the IO Unit COM port or redirection to a remote client via the MMB: <ul style="list-style-type: none">• COM: Output to the COM port• MMB: Redirected to a remote client via the MMB The default setting is [COM].

Item	Description
Port	A port number of 1024 or higher can be specified for a connection to a remote client for [Console Redirection].
Telnet/SSH	<p>Either [Telnet] or [SSH] can be selected for the protocol used in a connection to a remote client for [Console Redirection].</p> <p>If [None] is selected, only the [Console Redirection] window of the Web-UI can be displayed.</p> <ul style="list-style-type: none">• Telnet• SSH• None

Table 5.87 Buttons in the [Console Redirection Switch] window

Button	Description
Apply	Specify a redirection method and a port number, click the [Apply] button, and the specified values are set.
Cancel	Click the [Cancel] button to revert to the original settings.

(1) Menu operation

[Partition] → [Console Redirection Switch]

(2) GUI operation

- 1 Select settings in [Console Redirection Switch] and the [Telnet/SSH] by clicking radio buttons, and click the [Apply] button.

The specified switch values are then set.

- Example of operation with terminal software on a remote client

For a [Console Redirection] connection in the Partition#0 window in [Figure 5.56](#), enter the following command:

```
#
```

```
# telnet <MMB_IP_address> 7000
```

5.3.6 [Partition Configuration] window

The SBs, IO Units and IOX that compose a partition can be specified from the [Partition Configuration] window.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

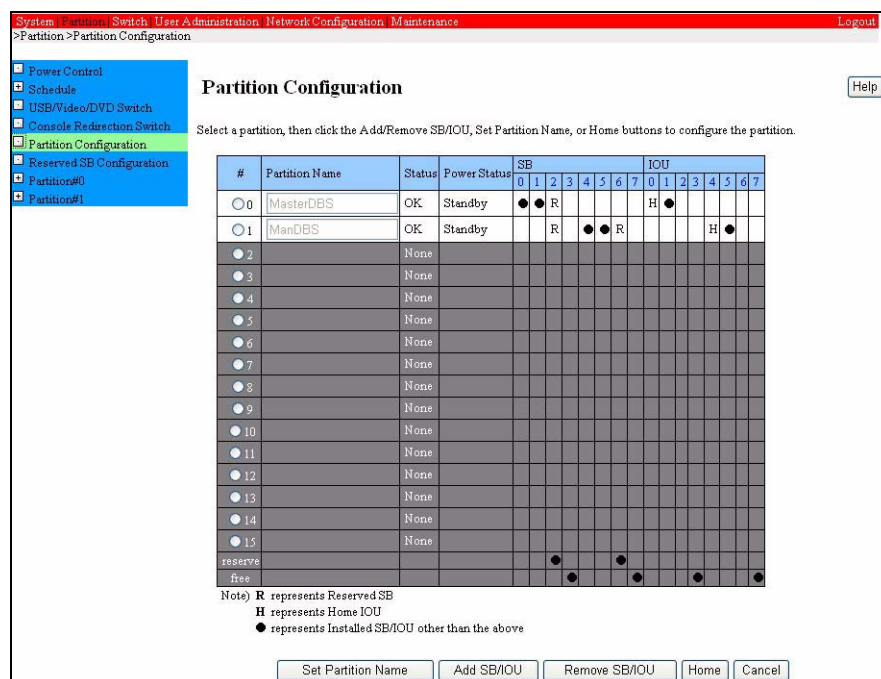


Figure 5.57 [Partition Configuration] window

The lines of partitions are grayed out if the [Status] column shows [None], meaning that the partition does not have an SB/IOU/IOX, or HomeIO Unit as its component. Furthermore, uninstalled SB/IOU/IOX are also grayed-out on their respective displayed columns.

If an SB, IO Unit, or IOX is split into two portions, the display cell indicating the SB, IO Unit, or IOX is vertically divided into two cells, with the upper and lower cells indicating portions A and B, respectively.

Notes:

- Extended Mirror Mode cannot be set in partitions containing SBs, IO Units or an IOX split with XPAR set. No split SB, IO Unit, or IOX can be assigned to a partition that is set in Extended Mirror Mode.

- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- XPAR is supported only in the PRIMEQUEST 500A/500 series, and the XPAR option is required for setting XPAR.

Table 5.88 Displayed and setting items in the [Partition Configuration] window

Item	Description
#	Partition identification number.
Partition Name	Name assigned to a partition. A name consisting of up to 16 characters can be entered. To simplify management, specify the same name as the host name set in the OS. You can use the following characters: 0-9, a-z, A-Z, " " (en-size space), #, - (hyphen), _ (underscore) The default name is NULL (empty).
Status	Partition status: <ul style="list-style-type: none"> • OK: Operating normally • Warning: In the warning state (a failure will probably occur). • Degraded: Component failure (The faulty component can be isolated to continue operation.) • Failed: Failure • None: No SB or IO Unit is assigned to the partition.
Power Status	Partition power status: <ul style="list-style-type: none"> • On: Powered on • Standby: Standby mode
SB	SBs belonging to a partition. If an SB is split into two portions, the portions are separately displayed on two lines (upper and lower). Uninstalled SBs are grayed-out in their respective columns.
IOU	IO Units belonging to a partition. "H" indicates the Home IOU. If an IO Unit is split into two portions, the portions are separately displayed on two lines (upper and lower). Uninstalled IO Units are grayed-out in their respective columns.
IOX	An IOX belonging to a partition. "H" indicates the Home IOU. If an IOX is split into two portions, the portions are separately displayed on two lines (upper and lower). Uninstalled IOX are grayed-out in their respective columns.

Table 5.89 Buttons in the [Partition Configuration] window

Button	Description
Set Partition Name	Specify a partition name in a field in [Partition Name], and click the [Set Partition Name] button to set the specified partition name.
Add SB/IOU	Click the [Add SB/IOU] button to display the [Add SB/IOU] window. SBs, IO Units, and IOX can be added to partitions in this window.
Remove SB/IOU	Click the [Remove SB/IOU] button to display the [Remove SB/IOU] window. SBs, IO Units, and IOX can be removed from partitions in this window.
Home	Click the [Home] button to display the [Partition Home] window. An IO Unit or IOX can be set as the home IO Unit in a partition in this window.
Cancel	Click the [Cancel] button to revert to the original settings.

(1) Menu operation

[Partition] → [Partition Configuration]

(2) GUI operation

- Specifying a partition name

- 1 Specify a partition name in a field in [Partition Name], and click the [Set Partition Name] button.

The specified partition name is set.

- Installing an SB, IO Unit, and IOX in a partition

Remarks: You can add an SB, IO Unit, and IOX to a partition even while the OS of the partition is operating. In such cases, reboot the partition to validate the changed configuration.

- 1 Select the partition to be configured, by clicking its radio button to the left of the partition name.
- 2 Click the [Add SB/IOU] button.
The [Add SB/IOU to Partition] window is displayed.
- 3 Install an SB, IO Unit, or IOX in the partition in the [Add SB/IOU to Partition] window.

- Removing an SB, IO Unit, and IOX from a partition

Remarks: You cannot remove an SB, IO Unit, and IOX from a partition while the OS of the partition is operating. In such cases, set the partition power to the standby state, and then remove the SB, IO Unit, and IOX.

- 1 Select the partition to be configured, by clicking its radio button to the left of the partition name.
 - 2 Click the [Remove SB/IOU] button.
The [Remove SB/IOU from Partition] window is displayed.
 - 3 Remove an SB, IO Unit, or IOX from the partition in the [Remove SB/IOU from Partition] window.
- Setting an IO Unit and IOX as the home IO Unit in a partition
 - 1 Select the partition to be configured, by clicking its radio button to the left of the partition name.
 - 2 Click the [Home] button.
The [Partition Home] window is displayed.
 - 3 Set an IO Unit or IOX as the home IO Unit in the partition in the [Partition Home] window.

5.3.6.1 [Add SB/IOU to Partition] window

A currently free SB, IO Unit, and IOX can be selected and installed in the specified partition in the [Add SB/IOU to Partition] window.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- You can add an SB, IO Unit, and IOX to a partition even while the OS of the partition is operating. In such cases, reboot the partition to validate the changed configuration.

Notes:

- Extended Mirror Mode cannot be set in partitions containing SBs, IO Units or an IOX split with XPAR set. No split SB, IO Unit, or IOX can be assigned to a partition that is set in Extended Mirror Mode.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- XPAR is supported only in the PRIMEQUEST 500A/500 series, and the XPAR option is required for setting XPAR.

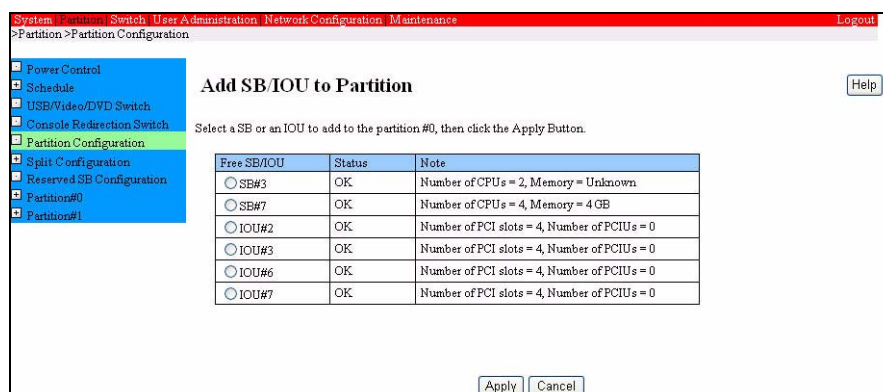


Figure 5.58 [Add SB/IOU to Partition] window

Table 5.90 Displayed and setting items in the [Add SB/IOU to Partition] window

Item	Description
Free SB/IOU	Currently free SBs and IO Units (not belonging to any partition)
Status	SB, IO Unit, and IOX status
Note	Indicates the following information: <ul style="list-style-type: none"> • Number of CPU s contained in the SB • Amount of memory installed on the SB • Number of PCI slots on the IO Unit • Number of PCI units connected to the IO Unit/IOX • Number of PEXU connected to the IO Unit/IOX

Table 5.91 Buttons in the [Add SB/IOU to Partition] window

Button	Description
Apply	Click the [Apply] button and a confirmation dialog box opens. In the dialog box, click the [OK] button to install the selected SB, IO Unit, or IOX in the partition and return to the [Partition Configuration] window.
Cancel	Click the [Cancel] button to return to the [Partition Configuration] window without installing the selected SB, IO Unit, or IOX in the partition.

(1) Menu operation

[Partition] → [Partition Configuration] → [Add SB/IOU] button

(2) GUI operation

- 1 Select a free SB, IO Unit, or IOX using the appropriate radio button (you can only select one free SB, IO Unit, or IOX at one time).
- 2 Click the [Apply] button.
A confirmation dialog box opens.
- 3 To include the SB, IO Unit, or IOX into the partition, click the [OK] button in the dialog box. The selected SB, IO Unit, or IOX is included in the partition and the [Partition Configuration] window reappears.
To stop the process of including the SB, IO Unit, or IOX in the partition, click the [Cancel] button in the dialog box.

5.3.6.2 [Remove SB/IOU from Partition] window

The [Remove SB/IOU from Partition] window allows you to select an SB or IO Unit from a specified partition and remove it.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- You cannot remove an SB, IO Unit, and IOX from a partition while the OS of the partition is operating. In such cases, set the partition power to the standby state, and then remove the SB, IO Unit, and IOX.

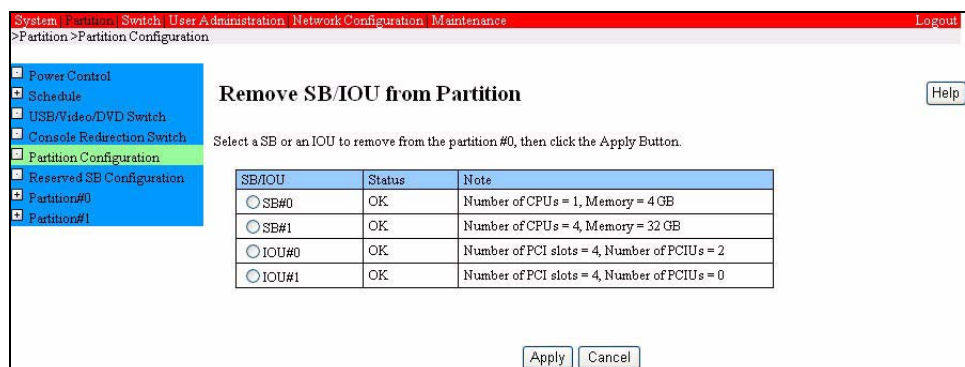


Figure 5.59 [Remove SB/IOU from Partition] window

Table 5.92 Displayed and setting items in the [Remove SB/IOU from Partition] window

Item	Description
SB/IOU	Indicates an SB/IOU/IOX that belongs to the partition.
Status	Indicates the status of the SB/IOU/IOX.
Note	Indicates the following information: <ul style="list-style-type: none">• Number of CPUs contained in the SB• Amount of memory installed on the SB• Number of PCI slots on the IO Unit• Number of PCI units connected to the IO Unit/IOX• Number of PEXU connected to the IO Unit/IOX

Table 5.93 Buttons in the [Remove SB/IOU from Partition] window

Button	Description
Apply	Click the [Apply] button and a confirmation dialog box opens. Click the [OK] button in the dialog box to remove the selected SB, IO Unit, or IOX from the partition and return to the [Partition Configuration] window.
Cancel	Click the [Cancel] button to return to the [Partition Configuration] window without removing the selected SB, IO Unit, or IOX from the partition.

(1) Menu operation

[Partition] → [Partition Configuration] → [Remove SB/IOU] button

(2) GUI operation

- 1 After selecting an SB, IO Unit, or IOX, click the [Apply] button.
A confirmation dialog box opens.
- 2 To continue removal processing, click the [OK] button in the dialog box.
The selected SB, IO Unit, or IOX is removed from the partition, and the [Partition Configuration] window reappears.
To cancel removal, click the [Cancel] button in the dialog box.

5.3.6.3 [Partition Home] window

The [Partition Home] window allows you to select an IO Unit or IOX and specify it as the Home IOU for the partition.

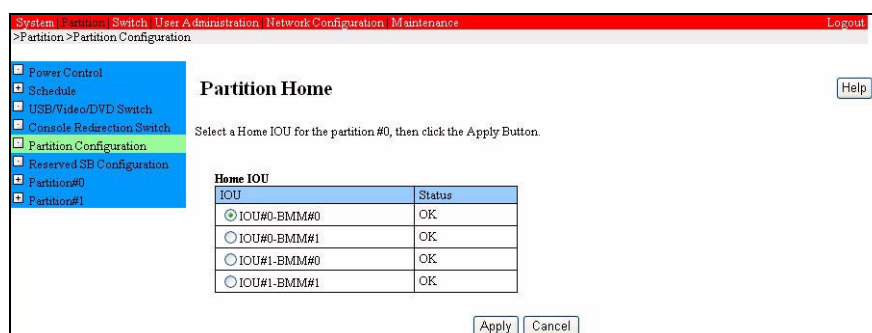


Figure 5.60 [Partition Home] window

Table 5.94 Displayed and setting items in the [Partition Home] window

Item	Description
Home IOU	
IOU	Indicates an IO Unit and IOX that belongs to the partition and contains an optional BMM product.
Status	Indicates the status of the IO Unit and IOX.

Table 5.95 Buttons in the [Partition Home] window

Button	Description
Apply	Clicking the [Apply] button causes the selected IO Unit or IOX to be set as the home for the partition, and the [Partition Configuration] window reappears.
Cancel	Clicking the [Cancel] button does not cause the selected IO Unit or IOX to be set as the home for the partition, and the [Partition Configuration] window reappears.

(1) Menu operation

[Partition] → [Partition Configuration] → [Home] button

(2) GUI operation

- 1 After selecting one IO Unit or IOX, click the [Apply] button.
The selected IO Unit or IOX is set as the home, and the [Partition Configuration] window reappears.
To stop the setting operation, click the [Cancel] button.

5.3.7 [Split Configuration] menu (only for the PRIMEQUEST 500A/500 series)

The [Split Configuration] menu provides the [SB Split] and [IOU Split] windows. The following sections describe these windows and related operations.

An XPAR option is required for splitting an SB, IO Unit, or IOX. The XPAR license must be registered to enable the XPAR option.

Notes:

- If the XPAR license has not been registered, the [Split Configuration] menu, [SB Split] window, [IOU Split] window are not displayed.
- Extended Mirror Mode cannot be set in partitions containing SBs, IO Units or an IOX split with XPAR set. No split SB, IO Unit, or IOX can be assigned to a partition that is set in Extended Mirror Mode.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.

5.3.7.1 [SB Split] window

The [SB Split] window allows you to set splitting or merging of SBs.

You can only split free SBs. You also can merge only free SBs that have been split.

Note: If the XPAR license has not been registered, the [SB Split] window is not displayed.

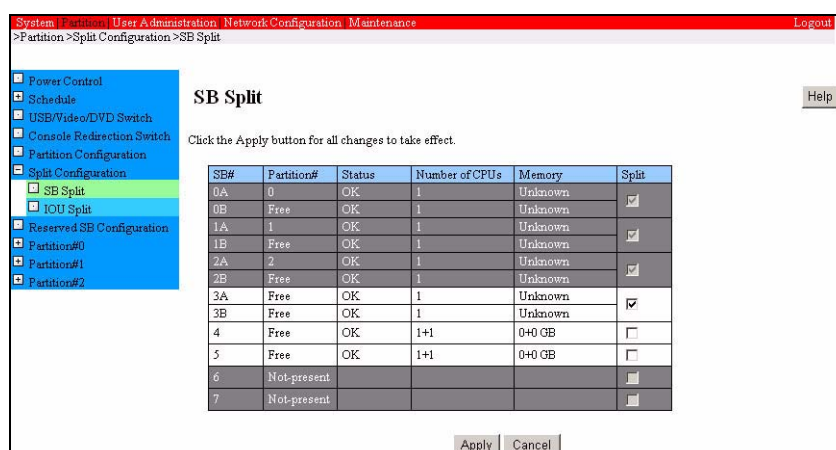


Figure 5.61 [SB Split] window

Table 5.96 Displayed and setting items in the [SB Split] window

Item	Description
SB#	Displays the SBs mounted in the cabinet.
Partition#	Displays the partition number to which the SBs are belonged
Status	Displays the SB status.
Number of CPUs	Displays the number of CPUs mounted on the SB.
Memory	Displays the size of memory mounted on the SB.
Split	Specifies whether to split the SB.

Table 5.97 Buttons in the [SB Split] window

Button	Description
Apply	Clicking the [Apply] button after specifying splitting or merging for an SB places the SB into split or merged status.
Cancel	Clicking the [Cancel] button cancels the splitting or merging specified for the SB.

(1) Menu operation

[Partition] → [Partition Configuration] → [SB Split] button

(2) GUI operation

- To split an SB:
 - 1 Turn on the [Split] check box for the SB to be split and click the [Apply] button. The SB is then split and displayed in the window as being split into xA and xB.
- To merge a split SB:
 - 1 Turn off the [Split] check box for the SB to be merged and click the [Apply] button. The SB is then merged and displayed in the window as a merged SB.

5.3.7.2 [IOU Split] window

The [IOU Split] window allows you to set the splitting or merging of IO Units and an IOX.

You can only split only IO Units and an IOX. You also can merge only free IO Units or IOXs that have been split.

Note: If the XPAR license has not been registered, the [IOU Split] window is not displayed.

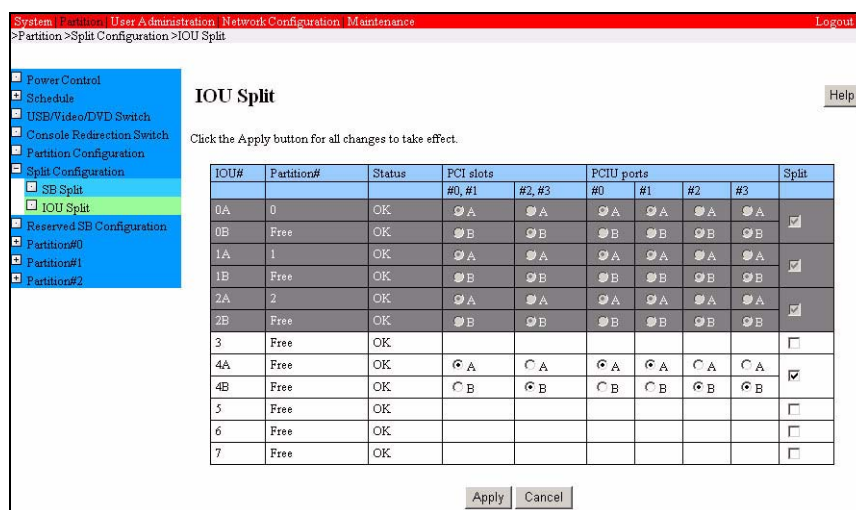


Figure 5.62 [IOU Split] window

Table 5.98 Displayed and setting items in the [IOU Split] window

Item	Description
IOU#	Displays the IO Units and IOX mounted in the cabinet.
Partition#	Displays the partition number to which the IO Units and IOX are belonged.
Status	Displays the statuses of the IO Units and IOX.
PCI slots	Specifies the portion (A or B) of the split IO Unit to which each PCI slot belongs. The radio buttons are displayed only for the IO Units that are split.
PCIU ports	Specifies the portion (A or B) of the split IO Unit/IOX to which each PCIU port belongs. The radio buttons are displayed only for the IO Unit or IOX that is split.
Split	Specifies whether to split the IO Unit and IOX.

Table 5.99 Buttons in the [IOU Split] window

Button	Description
Apply	Clicking the [Apply] button after specifying splitting or merging for an IO Unit or IOX places the IO Unit or IOX into split or merged status.
Cancel	Clicking the [Cancel] button cancels the splitting or merging specified for the IO Unit or IOX.

(1) Menu operation

[Partition] → [Partition Configuration] → [IOU Split] button

(2) GUI operation

- To split an IO Unit or IOX:
 - 1 Turn on the [Split] check box for the IO Unit or IOX to be split.
 - 2 Click the [Apply] button.
 - 3 The IO Unit or IOX is split into xA and xB and displayed in the window.
 - 4 Specify the split portion (A or B) of the IO Unit to which each PCI slot or PCIU port is made to belong by selecting the corresponding radio button (A or B) in the [PCI slots] and [PCIU ports] columns.
 - 5 Click the [Apply] button.
The IO Unit or IOX is then split and displayed in the window as IO Unit being split into xA and xB.
- To merge a split IO Unit or IOX:
 - 1 Turn off the [Split] check box for the IO Unit or IOX to be merged, and click the [Apply] button.
The split IO Unit or IOX is then merged and displayed in the window as a merged IO Unit or IOX.

5.3.8 [Reserved SB Configuration] window

The [Reserved SB Configuration] window can be used to define a reserved in a partition by selecting a free SB or an SB already defined as a reserved in another partition.

A reserved SB is prepared for a partition with consideration given to the operation states. If an SB included in the partition fails and must be disconnected, the reserved SB is newly added to the partition to replace the disconnected SB.

You can define a free SB as a reserved SB but also define an SB, which is already defined as a reserved SB for one partition, for another.

For PRIMEQUEST 500 series, the contents of the [Reserved SB Configuration] window vary with the MMB firmware version. If the firmware version is 3.24 or later, the window in [Figure 5.63](#) or [Figure 5.66](#) is displayed. If the firmware version is 3.23 or earlier, the window in [Figure 5.64](#) or [Figure 5.67](#) is displayed.

Confirm the firmware version on the [Firmware Information] window (click [System] → [Firmware Information].).

Notes:

- If an SB failure causes the reboot of a partition, a switch is made to the reserved SB indicated as the Reserved SB in the partition.
If a failure occurs in one of the components (such as memory) in a duplicated component configuration in Extended Mirror Mode and the other component continues operating without interruption, switching to a reserved SB is not made.
- No SB split with XPAR set can be assigned as the reserved SB of a partition that is set in Extended Mirror Mode. Extended Mirror Mode cannot be set in partitions to which split SBs are assigned as reserved SBs.
- XPAR is supported only in the PRIMEQUEST 500A/500 series, and the XPAR option is required for setting XPAR.
- The recommended reserved SB defined for a partition is one that has the same memory and CPU configurations as those of SBs configured in the partition. If the number of CPUs increases during switching to the specified reserved SB, additional licenses are required.
- CPUs of the same type as those on the SBs composing the partition must be mounted on the reserved SB. If the SB has a different type of CPU mounted on it, it cannot be defined as a reserved SB.

- An SB with 32 GB of memory mounted (8-GB DIMM × 4) cannot be mixed in the same partition with an SB having another memory configuration.
Therefore, an SB with 32 GB of memory mounted (8-GB DIMM × 4) cannot be set as a reserved SB in a partition consisting of SBs having another memory configuration.
- An SB with 16 GB of memory mounted (4-GB DIMM × 4) cannot be mixed in the same partition with an SB having another memory configuration.
Therefore, an SB with 16 GB of memory mounted (4-GB DIMM × 4) cannot be set as a reserved SB in a partition consisting of SBs having another memory configuration.
- When started for the first time after a switch to a reserved SB in a partition on which Windows Server 2003 is installed, the system prompts for a restart of the partition. As soon as the message is displayed, restart the partition as instructed.
- When estimating the length of time that operation may be stopped because of an SB failure in a partition on which Windows Server 2003 is installed, consider the time required for a restart. The actual time required for resuming operation is the total of the time taken for system startup and the time taken for a reboot after the switching to a reserved SB.

Remarks:

- Uninstalled SBs are grayed out.
- A reserved SB can also be assigned to multiple partitions in PRIMEQUEST 500A/500 series.
- To change a reserved SB into a free SB, clear the check box of the SB in the [Reserved SB Configuration] window and click the [Apply] button.

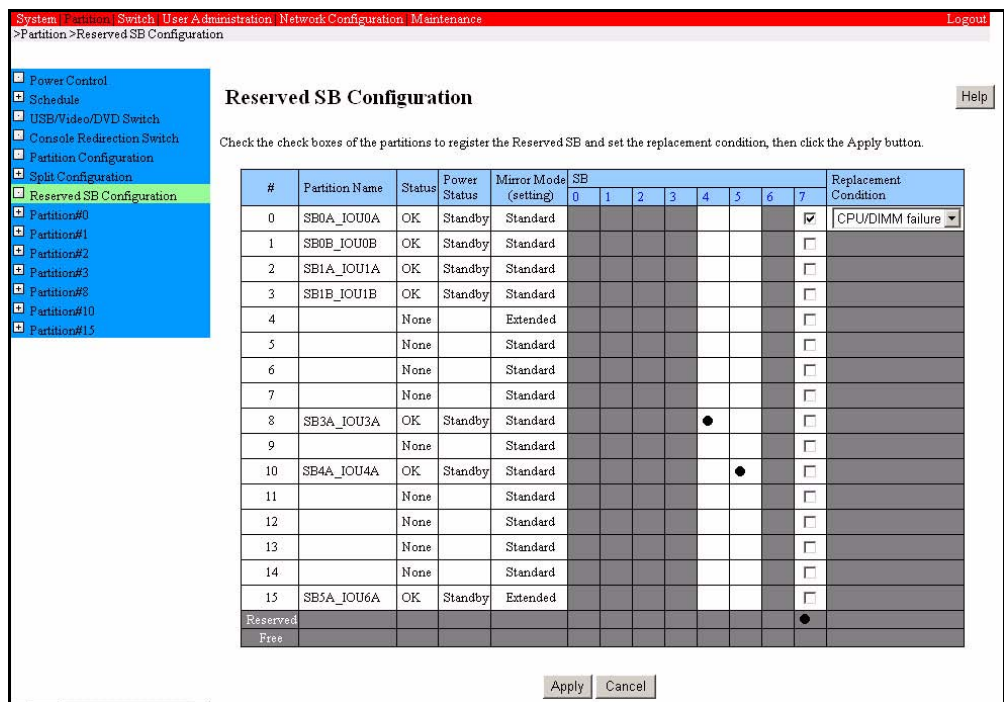


Figure 5.63 [Reserved SB Configuration] window (PRIMEQUEST 580A/540A and PRIMEQUEST 580/540: This window is displayed for MMB firmware version 3.24 or later)

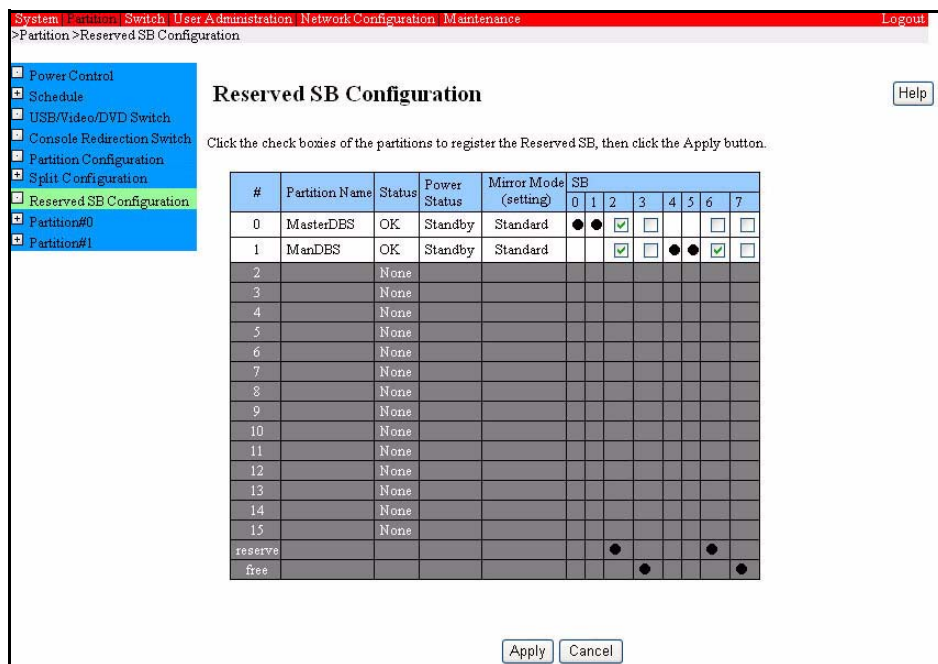


Figure 5.64 [Reserved SB Configuration] window (PRIMEQUEST 580/540: This window is displayed for an MMB firmware version earlier than 3.23.)

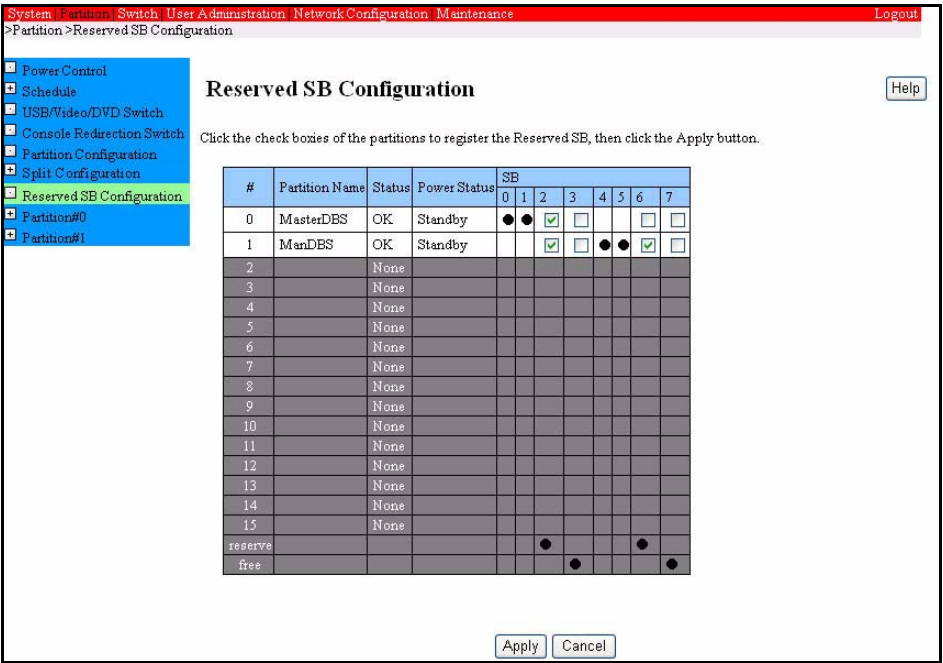


Figure 5.65 [Reserved SB Configuration] window (PRIMEQUEST 480/440)

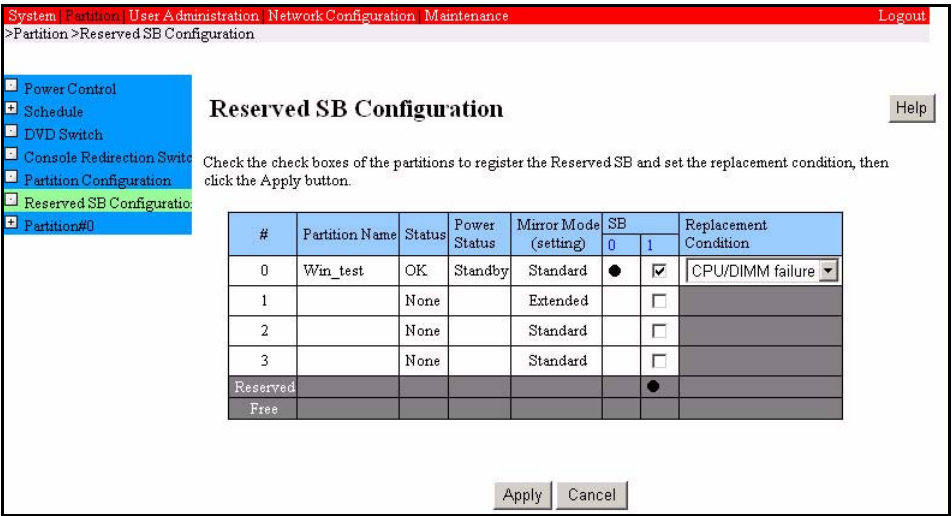


Figure 5.66 [Reserved SB Configuration] window (PRIMEQUEST 520A and PRIMEQUEST 520: This window is displayed for MMB firmware version 3.24 or later)

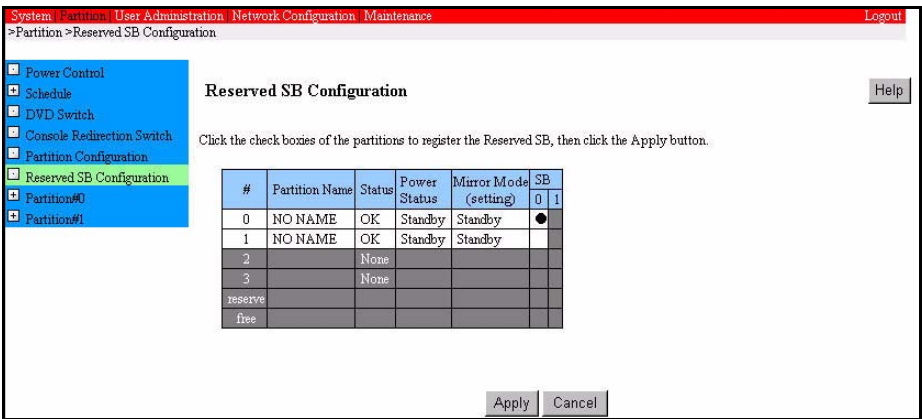


Figure 5.67 [Reserved SB Configuration] window (PRIMEQUEST 520: This window is displayed for MMB firmware version earlier than 3.23.)

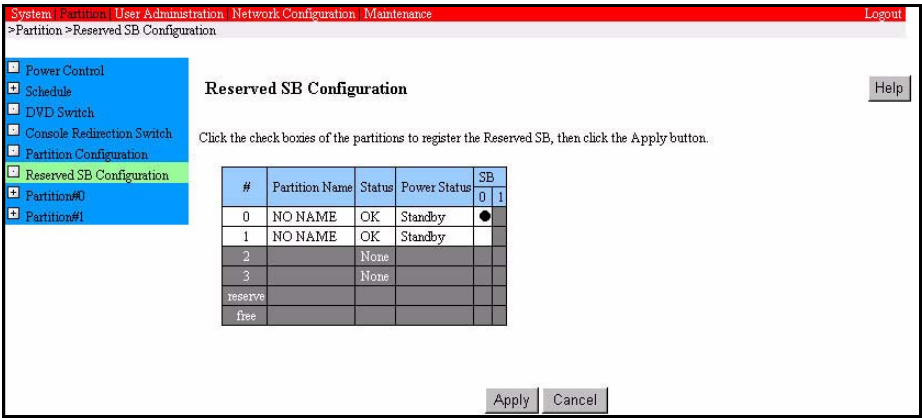


Figure 5.68 [Reserved SB Configuration] window (PRIMEQUEST 420)

Table 5.100 Displayed and setting items in the [Reserved Configuration] window

Item	Description
#	Partition number
Partition Name	Partition name
Status	Partition status: <ul style="list-style-type: none">• OK: Operating normally• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Warning: Warning status (A problem will possibly occur.)• Failed: Failure• None: No SB or IO Unit is assigned to the partition.
Power Status	Partition power status: [●] indicates SBS that have been allocated to a partition and cannot be allocated as Reserved SBs. <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode
Mirror Mode (setting)	The set values of Mirror Mode for a partition are displayed. <ul style="list-style-type: none">• Standard: Standard Mirror Mode is selected.• Extended: Extended Mirror Mode is selected.
SB0 to SB7 (PRIMEQUEST 580A/ 540A/580/540/480/440 only) SB0 to SB1 (PRIMEQUEST 520A/ 520/420 only)	Reserved SBs. Select a partition to be reserved by checking its check box.
Replacement Condition (*)	For a partition for which Reserved SB was set, this condition determines the timing at which the reserved SB is to be switched. <ul style="list-style-type: none">• SB failure: When an SB in the partition was degraded, it is switched with the reserved SB.• CPU/DIMM failure: When degradation occurs for a CPU or DIMM module that is mounted on an SB in the partition, the corresponding SB is switched with the reserved SB. The default value for this setting is "CPU/DIMM failure"

[Replacement Condition] can be set for the following system types:

- PRIMEQUEST 580A/540A/520A
- PRIMEQUEST 500 series running MMB firmware whose version level is 3.24 or later

Table 5.101 Buttons in the [Reserved SB Configuration] window

Button	Description
Apply	Select an SB by checking its check box, click the [Apply] button, and the selected SB is defined as a Reserved SB.
Cancel	Click the [Cancel] button to revert to the original status without defining the selected SB as a Reserved SB.

(1) Menu operation

[Partition] → [Reserved SB Configuration]

(2) GUI operation

- 1 Select an SB for use as a spare in a partition by checking its check box.
Check boxes are displayed vertically in the columns for SBs in the free state or SBs defined as Reserved SBs.
- 2 [Replacement Condition] sets the condition that determines the timing at which the reserved SB is to be switched.
(PRIMEQUEST 580A/540A/520A or PRIMEQUEST 500 series running MMB firmware whose version level is 3.24 or later)
- 3 Click the [Apply] button.

5.3.9 Partition#x menu

The individual partitions have the following menus:

- PRIMEQUEST 580A/540A/580/540/480/440
[Partition#0] to [Partition#15]
- PRIMEQUEST 520A/520/420
[Partition#0] to [Partition#3]

Although the windows provided from these menus are independent for each partition, the windows all have the same screen format and operating methods. This section describes the screen format and related GUI operations for one [Partition#x] menu, but the descriptions are applicable to all partitions.

The [Partition#x] menu provides the following windows:

- [Information]
- [Boot Control]
- [ASR Control]
- [Console Redirection]
- [Mode]

This section describes these windows and their operations.

5.3.9.1 [Information] window

The [Information] window displays the partition status and a variety of partition information.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

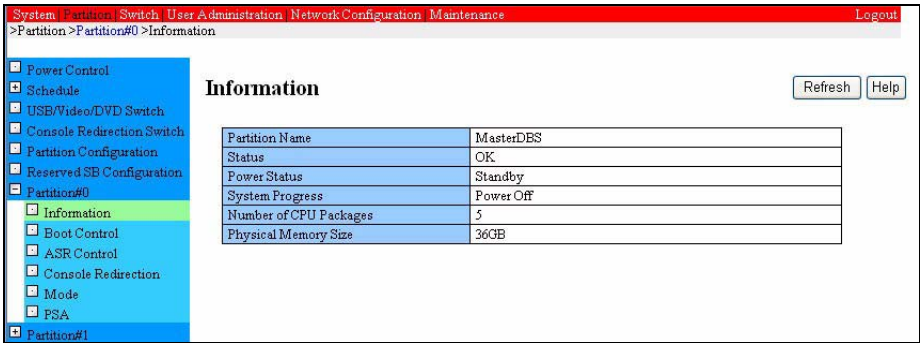


Figure 5.69 [Information] window

Table 5.102 Displayed items in the [Information] window

Item	Description
Partition Name	Partition name
Status	Partition status: <ul style="list-style-type: none">• OK: Operating normally• Degraded: Component failure (The faulty component can be isolated to continue operation.)• Warning: Warning status (A problem will possibly occur.)• Failed: Failure
Power Status	Partition power status: <ul style="list-style-type: none">• On: Powered on• Standby: Standby mode

Item	Description
System Progress	<p>Partition progress</p> <ul style="list-style-type: none">• Power Off: The partition power is off.• Power On In Progress: The partition power-on sequence is in progress.• Reset: The partition is being reset.• POST XXXXh: POST code = XXXXh processing has started.• Boot: The partition is in one of the following states:<ul style="list-style-type: none">- The partition is being booted.- PSA is not installed.- Installation is in progress.- Backup or restoration using Systemcast Wizard is in progress.• OS Running: The OS is in the active state.• OS Shutdown: The OS is in shutdown state.• Panic: The system is in the panic state.• Power Off In Progress: The partition power-off sequence is in progress.• Check Stop: The system is stopped for a check.
Number of CPU packages	<p>Number of CPU packages included in the partition. Remarks: This number does not include degraded CPUs.</p>
Physical Memory Size	<p>Size of physical memory included in the partition. Remarks: This size differs from the size of memory that can actually be used by the OS. The memory size does not include degraded DIMMs.</p>

(1) Menu operation

[Partition] → [Partition#x] → [Information]

(2) GUI operation

None

5.3.9.2 [Boot Control] window

Partition boot can be controlled from the [Boot Control] window.

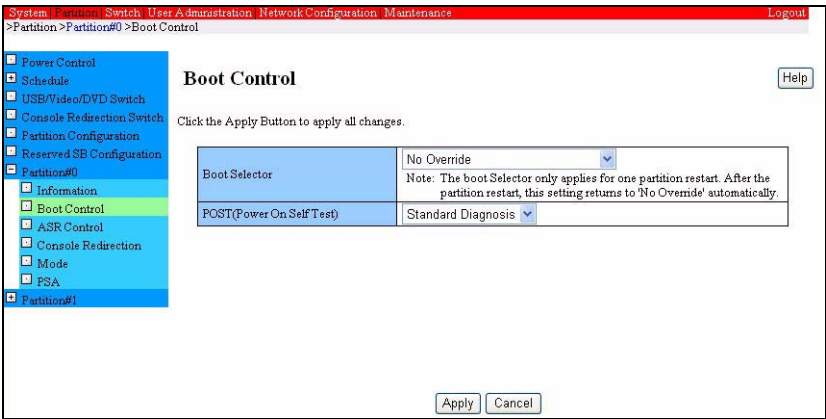


Figure 5.70 [Boot Control] window

Table 5.103 Displayed and setting items in the [Boot Control] window

Item	Description
Boot Selector	<p>Specify the boot device by overwriting the EFI Boot Manager settings. Select the boot device from the pulldown menu:</p> <ul style="list-style-type: none">• No Overwrite: The EFI Boot Manager settings are used to boot the system.• Force boot into EFI Boot Manager: EFI Boot Manager is started, and it then waits for input. EFI Boot Manager can thereby be used to select a boot device and boot the system.• Force PXE: The EFI Boot Manager settings are overwritten, and PXE is forcibly executed.• Force boot from DVD: The EFI Boot Manager settings are overwritten, and a forced boot of the system from the DVD is attempted. <p>The default is [No Overwrite].</p>
POST	<p>Select the type of Power On Self Test (POST) from the pulldown menu:</p> <ul style="list-style-type: none">• Fast Boot: Fast boot with minimal diagnosis• Standard Diagnosis: Standard diagnosis• Full Diagnosis: Complete diagnosis with all diagnostic items <p>The default is [Standard Diagnosis].</p>

Table 5.104 Buttons in the [Boot Control] window

Button	Description
Apply	Specify a boot control method, and click the [Apply] button to set boot control as specified.
Cancel	Click the [Cancel] button to revert to the original status without setting the boot control as specified.

(1) Menu operation

[Partition] → [Partition#x] → [Boot Control]

(2) GUI operation

- 1 Select a method for system boot by clicking its radio button, and click the [Apply] button to use boot control to override EFI Boot Manager settings. Boot control as specified is then set.

5.3.9.3 [ASR (Automatic Server Restart) Control] window

The conditions for automatic restart of a partition can be specified in the [ASR (Automatic Server Restart) Control] window.

CAUTION

Malfunction

Before any of the following operations is performed, [Disable] must be set for the Boot Watchdog in the [Watchdog] window of PSA.

- Booting from a CD-ROM disk
- Booting the system in single-user mode
- Backing up or restoring data by using SystemcastWizard

If any of the above operations is performed with [Enable] set for the Boot Watchdog, OS restart is attempted repeatedly for the specified number of times. The system then takes the specified action (Stop rebooting and Power Off, Stop rebooting, or Diagnostic interrupt assert). The number of retries of the OS restart and the actions to be taken can be set in the [ASR Control] window for the MMB-UI.

In the [ASR Control] window, check [Cancel Boot Watchdog], and click the [Apply] button. [Disable] can thus be forcibly set for the Boot Watchdog.

For details about the [Watchdog] window of PSA, see Section 7.15.1, "[Watchdog] window," in Part IV, "PSA."

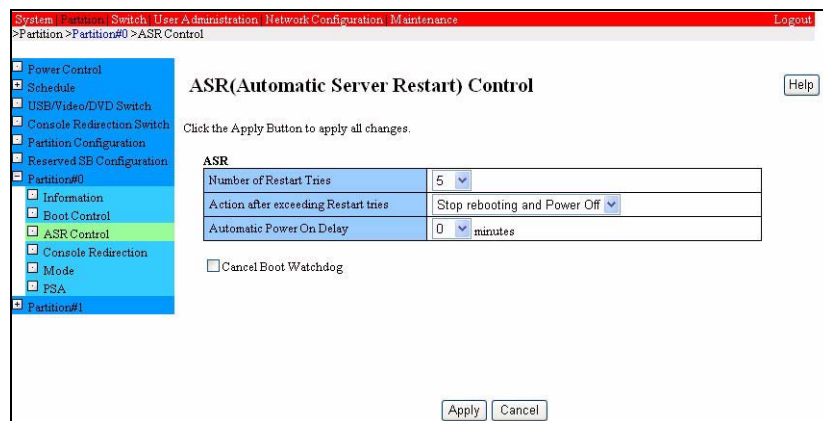


Figure 5.71 [ASR (Automatic Server Restart) Control] window

Table 5.105 Displayed and setting items in the [ASR (Automatic Server Restart) Control] window

Item	Description
Number of Restart Tries	<p>Specify the number of OS restarts attempted following a timeout due to the Boot Watchdog or PSA software watchdog.</p> <p>The setting range is 0 to 10.</p> <p>The default setting is 5.</p> <ul style="list-style-type: none">• If 0 is specified, the specified action is not executed even after a lapse of the time at which a timeout should occur. Do not specify 0 when watchdog monitoring is being performed.• If 0 is specified, sadump is not activated even after expiry of the monitoring time. Do not specify 0 when time monitoring is being performed.
Action after exceeding Restart tries	<p>Specify the action to be taken if the repeated restart attempts due to a watchdog timeout or other causes exceed the above number of retries.</p> <p>The action types are as follows:</p> <ul style="list-style-type: none">• Stop rebooting and Power Off• Stop rebooting• Diagnostic Interrupt assert <p>The default setting is [Stop rebooting and Power Off].</p>
Automatic Power On Delay	<p>Specify the delay time before the power-on operation in an automatic restart.</p> <p>The setting range is 0 to 10 minutes.</p> <p>The default setting is 0 minutes.</p>

Item	Description
Cancel Boot Watchdog	<p>Select [Cancel Boot Watchdog] to disable OS boot monitoring.</p> <p>If the Boot Watchdog is canceled in this window, the system does not initiate OS boot monitoring until [Enable] is set again for the Boot Watchdog in the [Watchdog] window of PSA.</p> <p>For details about the [Watchdog] window of PSA, see Section 7.15.1, "[Watchdog] window," in Part IV, "PSA."</p> <p>The default is [No Check].</p> <p>Remarks: OS boot monitoring is a PSA function. The monitoring starts when the Boot Watchdog timeout time is set in the PSA window. If the specified Boot Watchdog timeout time is too short, however, a timeout may occur before the system starts PSA, which can stop the Boot Watchdog timer. As a result, repeated reboots may occur. In such cases, PSA has not yet started, and the PSA page that provides the Boot Watchdog function cannot be displayed, so the Boot Watchdog cannot be displayed.</p> <p>Likewise, if any of the following operations is performed, PSA will not boot, resulting in any of the aforementioned problems:</p> <ul style="list-style-type: none"> • Booting from a CD-ROM disk • Booting the system in single-user mode • Backing up or restoring data by using SystemcastWizard <p>Provided as a measure against this problem, this check box disables the Boot Watchdog without using PSA.</p>

Table 5.106 Buttons in the [ASR (Automatic Server Restart) Control] window

Button	Description
Apply	<p>Click the [Apply] button to:</p> <ul style="list-style-type: none"> • Set the specified values in items such as [Number of Restart Tries] [Action after exceeding Restart tries]. • Disable the Boot Watchdog if the [Cancel Boot Watchdog] check box is checked.
Cancel	Click the [Cancel] button to revert to the original settings.

(1) Menu operation

[Partition] → [Partition#x] → [ASR Control]

(2) GUI operation

- 1 Specify values in items in the window and check the [Cancel Boot Watchdog] check box as required, and click the [Apply] button.

The specified values are then set. Furthermore, if the [Cancel Boot Watchdog] check box is checked, the Boot Watchdog is disabled.

5.3.9.4 [Console Redirection] window

The [Console Redirection] window displays console output of a partition. This console is for output only and does not accept any input.

Note: The [Console Redirection] window may not be displayed normally because of the following restrictions:

- The displayed window is not the same as that output to the terminal in the following cases because the [Console Redirection] window outputs escape sequences without modification:
 - An operation is performed with the [Delete], [Backspace], [Page Up], or [Page Down] key.
 - The ls command is executed on the OS console (the beginning of the prompt is normally not displayed).
 - Colored characters are displayed.
- The [Console Redirection] window supports the ISO-8859-1 character code set. If the displayed window includes any character that is not supported, the [Console Redirection] window contents may not be normally displayed.

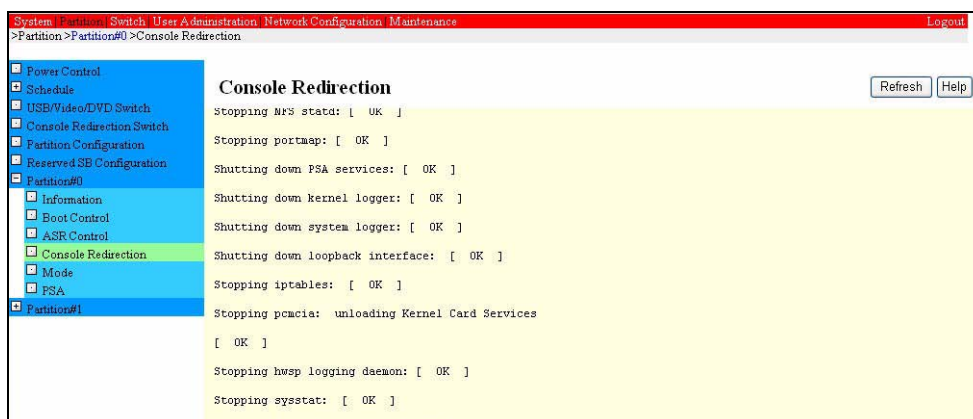


Figure 5.72 [Console Redirection-1] window

Console output is displayed with the latest line as the bottom line. Past data can be viewed by scrolling up in the window.

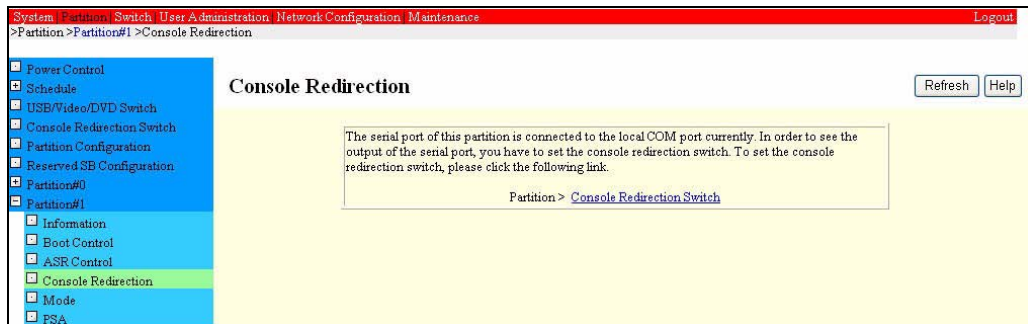


Figure 5.73 [Console Redirection-2] window

If the output serial port of this partition is connected to an IO Unit COM port instead of the MMB, the above window is displayed because console output cannot be displayed.

For details, see [Section 5.3.5, "\[Console Redirection Switch\] window."](#)

(1) Menu operation

[Partition] → [Partition#x] → [Console Redirection]

(2) GUI operation

None

5.3.9.5 [Mode] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [Mode] window allows you to set a mode for a partition. You need to turn off and then turn on the power to the partition to make the specified value effective.

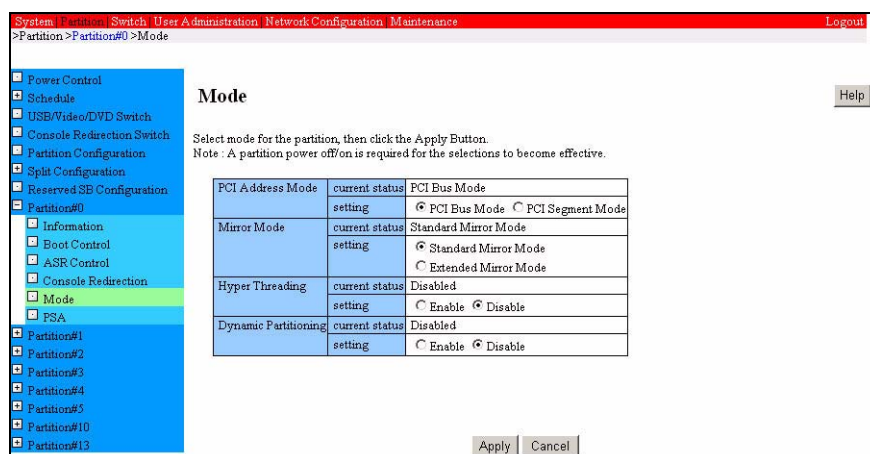


Figure 5.74 [Mode] window (PRIMEQUEST 580A/540A)

To set Extended Mirror Mode in [Mirror Mode (setting)], a license is necessary. Unless an appropriate license has been registered, the [Extended Mirror Mode] radio button is grayed out, meaning that it cannot be selected.

For details on how to register a license, see [Section 4.4.2, "Enabling the Extended Mirror Modes."](#)

Table 5.107 Displayed and setting items in the [Mode] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
PCI Address Mode (current status) (PRIMEQUEST 580A/540A/580/540/480/440 only)	CPU address mode that is set in the partition: <ul style="list-style-type: none">• PCI Bus Mode: Defines all PCI space in the partition under segment number 0.• PCI Segment Mode: Defines PCI space in the partition as split into segments for each IO Unit. If PCI segment mode is set, PCI devices under IO Unit#0 can be seen in the space under segment number 0. Likewise, PCI devices under IO Unit#1 can be seen in the space under segment number 1.

Item	Description
PCI Address Mode (setting) (PRIMEQUEST 580A/540A/580/540/480/440 only)	Specify a PCI address mode for a partition. <ul style="list-style-type: none"> • PCI Bus Mode • PCI Segment Mode The specified mode is set when the partition is reset. Notes: <ul style="list-style-type: none"> • Set PCI Bus Mode for a partition whose OS is Windows Server 2003. • Set PCI Segment Mode for a partition whose OS is Linux. • If Linux is installed, PCI Bus Mode must be set in advance. • For information on how to set the PCI address mode for a partition running Windows Server 2008, see the <i>PRIMEQUEST Windows Server 2008 User's Guide</i> (C122-E087EN). The default is [PCI Bus Mode].
Interleave Mode between SBs (only for PRIMEQUEST 480/440)	Note: This mode is displayed for PRIMEQUEST 480/440 machines. However, do not use this mode.
Mirror Mode (current status)	Indicates the Mirror Mode that is currently effective.
Mirror Mode (Setting)	Sets System Mirror Mode. For details on the mirror modes, see the <i>PRIMEQUEST 580A/540A/580/540/480/440 System Design Guide</i> (C122-B001EN). <ul style="list-style-type: none"> • Standard Mirror Mode • Extended Mirror Mode Remarks: If "Disable" has been selected for Mirror Mode in the [System Setup] window, "Mirror Mode" is grayed out and cannot be selected in the [Mode] window. The default setting is [Standard Mirror Mode].
Hyper Threading (current) (Only for the PRIMEQUEST 500A/500 series)	Displays the status of Hyper Threading function. <ul style="list-style-type: none"> • Enabled: Hyper Threading is enabled. • Disabled: Hyper Threading is disabled.
Hyper Threading (setting) (Only for the PRIMEQUEST 500A/500 series)	Specifies whether to enable the Hyper Threading function. <ul style="list-style-type: none"> • Enable (enabling Hyper Threading) • Disable (disabling Hyper Threading) The default setting is [Disable] (disabling Hyper Threading).
Dynamic Partitioning (current) (PRIMEQUEST 580A/540A series only)	Displays whether the Dynamic Partitioning function is enabled. <ul style="list-style-type: none"> • Enabled: Dynamic Partitioning is enabled. • Disabled: Dynamic Partitioning is disabled.

Item	Description
Dynamic Partitioning (setting) (PRIMEQUEST 580A/540A series only)	<p>Specifies whether to enable the Dynamic Partitioning function.</p> <ul style="list-style-type: none">• Enable: Enables Dynamic Partitioning.• Disable: Disables Dynamic Partitioning. <p>Note: The DP function is not supported in any of the cases listed below. In these cases, set [Disable] since operation cannot be guaranteed; setting [Enable] leads to a possibility that installation cannot be performed correctly.</p> <ul style="list-style-type: none">• The system used runs under RHEL with a version level earlier than RHEL 5.1 (IPF).• The system used runs a Windows version earlier than Windows Server 2008.• The system used runs under SUSE.• The virtual machine function is used. <p>The default setting is [Disable] (disabling Dynamic Partitioning). For details, see the <i>PRIMEQUEST 580A/540A Dynamic Partitioning (DP) Manual</i> (C122-E085EN).</p>

IMPORTANT

- To apply the changes made to settings in this window, the power to the partition needs to be turned off and then turned on again.

Table 5.108 Buttons in the [Mode] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Apply	<p>If the power to the partition is on at the time that the [Apply] button is clicked with a mode selected, a confirmation dialog box stating the following appears:</p> <p>"The selected mode will become effective the next time the partition power off/on is performed."</p> <p>Click the [OK] button for confirmation.</p>
Cancel	<p>Click the [Cancel] button to revert to the original settings for modes.</p>

(1) Menu operation

[Partition] → [Partition#x] → [Mode]

(2) GUI operation

- 1 Specify a mode and click the [Apply] button.
A confirmation dialog box opens.
- 2 Click the [OK] button.

5.3.9.6 [Mode] window (PRIMEQUEST 520A/520/420)

The [Mode] window allows you to set a mode for the partition. You need to reboot the partition to make the specified value effective.

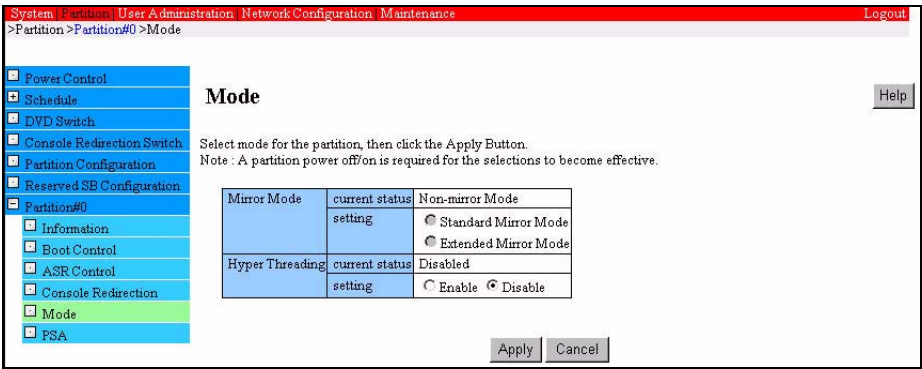


Figure 5.75 [Mode] window (PRIMEQUEST 520A/520)

To set Extended Mirror Mode in [Mirror Mode (setting)], a license is necessary. Unless an appropriate license has been registered, the [Extended Mirror Mode] radio button is grayed out, meaning that it cannot be selected.

For details on how to register a license, see [Section 4.4.2, "Enabling the Extended Mirror Modes."](#)

Table 5.109 Displayed and setting items in the [Mode] window (PRIMEQUEST 520A/520/420)

Item	Description
Mirror Mode (current status)	Indicates the Mirror Mode that is currently effective.
Mirror Mode (Setting)	<p>Sets System Mirror Mode.</p> <p>Be sure to select System Mirror (Extended Mirror Mode).</p> <p>For details on the mirror modes, see the <i>PRIMEQUEST 520A/520/420 System Design Guide</i> (C122-B009EN).</p> <ul style="list-style-type: none">Standard Mirror ModeExtended Mirror Mode <p>Remarks: If "Disable" has been selected for Mirror Mode in the [System Setup] window, "Mirror Mode" is grayed out and cannot be selected in the [Mode] window.</p> <p>The default setting is [Standard Mirror Mode].</p>

Item	Description
Hyper Threading (current) (Only for the PRIMEQUEST 500A/ 500 series)	Displays the status of Hyper Threading function. <ul style="list-style-type: none">• Enabled: Hyper Threading is enabled.• Disabled: Hyper Threading is disabled.
Hyper Threading (setting) (Only for the PRIMEQUEST 500A/ 500 series)	Specifies whether to enable the Hyper Threading function. <ul style="list-style-type: none">• Enable (enabling Hyper Threading)• Disable (disabling Hyper Threading) The default setting is [Disable] (disabling Hyper Threading).

IMPORTANT

- ▶ To apply the changes made to settings in this window, the power to the partition needs to be turned off and then turned on again.

Table 5.110 Buttons in the [Mode] window (PRIMEQUEST 520A/520/420)

Button	Description
Apply	If the power to the partition is on at the time that the [Apply] button is clicked with a mode selected, a confirmation dialog box stating the following appears: "The selected mode will become effective the next time the partition power off/on is performed." Click the [OK] button for confirmation.
Cancel	Click the [Cancel] button to revert to the original settings for modes.

(1) Menu operation

[Partition] → [Partition#x] → [Mode]

(2) GUI operation

- 1 Specify a mode and click the [Apply] button.
A confirmation dialog box opens.
- 2 Click the [OK] button.

5.4 User Administration Menu

The [User Administration] menu enables user administration on the PRIMEQUEST-series machine.

5.4.1 [User List] window

The [User List] window displays information on registered user accounts.

This window is displayed only for users with the administrator privilege.

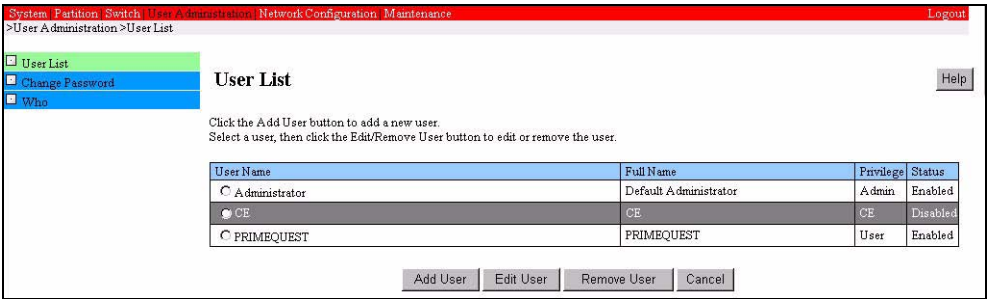


Figure 5.76 [User List] window

Users whose status is set to [Disable] are grayed out.

Table 5.111 Displayed and setting items in the [User List] window

Item	Description
User name	Indicates the user name.
Full Name	Indicates the actual name or other information associated with [User Name].
Privilege	User account privilege
Status	Current account status: <ul style="list-style-type: none">• Enable: Available• Disabled: Not available

Table 5.112 Buttons in the [User List] window

Button	Description
Add User	Click the [Add User] button to display the [Add/Edit User] window. A new user can be registered in this window.
Edit User	Select a user from the list of users, and click the [Edit User] button to display the [Add/Edit User] window. Management information for the user can be changed in this window.
Remove User	Select a user from the list of users, click the [Remove User] button, and a confirmation dialog box opens. Click the [OK] button to remove the user.
Cancel	Click the [Cancel] button to revert to the original settings without any modifications.

(1) Menu operation

[User Administration] → [User List]

(2) GUI operation

- Registering a new user
 - 1 Click the [Add User] button.
The [Add User] window is displayed.
 - 2 Register a new user in the [Add User] window.
- Changing management information for a user
 - 1 Select a user by clicking the radio button next to the user name, and click the [Edit User] button.
The [Edit User] window is displayed.
 - 2 Edit management information for the user in the [Edit User] window.
- Removing a user
 - 1 Select a user by clicking the radio button next to the user name, and click the [Remove User] button.
A [Confirm Removal] dialog box opens.
 - 2 Click the [OK] button in the [Confirm Removal] dialog box to remove the user.
The user is removed.

5.4.1.1 [Add User] window

User management information can be changed in the [Add User] window.

System Partition Switch Port Management Network Configuration Maintenance Logout

>User Administration >User List >Add User

User List
Change Password
Who

Add User Help

Click the Apply Button to apply all changes.

User Name	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
Privilege	<input checked="" type="radio"/> Admin <input type="radio"/> Operator <input type="radio"/> User <input type="radio"/> CE
Status	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Full Name	<input type="text"/> (optional)

Apply Cancel

Figure 5.77 [Add User] window

Table 5.113 Displayed and setting items in the [Add User] window

Item	Description
User name	Specify a user name. The user name must be from 8 to 32 characters long. You can use the following characters for user names: 0-9, a-z, A-Z, - (hyphen), _ (underscore) The first character must be one of a-z or A-Z.
Password	Specify a password. The password must be from 8 to 32 characters long. You can use the following characters for passwords: 0-9, a-z, A-Z, special characters: ! " # \$ % & ' () = - ^ ~ \ @ ` [] { } : * ; + ? < . > , / _
Confirm Password	Enter the password again for confirmation.

Item	Description
Privilege	User account privilege <ul style="list-style-type: none">• [User]: Permitted only to refer to the PRIMEQUEST-series machine status.• [CE]: Permitted to refer to the PRIMEQUEST-series machine status and operate maintenance.• [Operator]: Permitted to refer to the PRIMEQUEST-series machine status and configure system settings.• [Admin]: Permitted to perform every type of operation. Note: [Admin] means administrator privilege.
Status	Specify the current account status: <ul style="list-style-type: none">• Enabled: Available• Disabled: Not available
Full Name	Enter a real name or other such name that is related to [User Name]. The full name must not be longer than 32 characters.

Since user privileges are set to restrict users' operation of the MMB, users who do not have the appropriate privileges cannot operate the MMB. For details on operation restrictions according to privileges, see [Section 5.1, "List of Menus in the Web-UI Window."](#)

Table 5.114 User privilege levels and operation restrictions

Privilege level	Operation	Description
User	P	Referring to the PRIMEQUEST system status
	NP	Setting system configuration information
	NP	Turning on or off power to a partition
CE	P	Referring to the PRIMEQUEST system status
	NP	Changing user management and network settings
	NP	Turning on or off power to a partition or the system by using the normal power-on or power-off procedure
	P	Performing maintenance operations
Operator	P	Referring to and setting the system status
	NP	Changing user management settings and LAN configurations
Administrator	P	All operations

[Operation] P: Permitted NP: Not permitted

Table 5.115 Buttons in the [Add User] window

Button	Description
Apply	Sets the specified values and redisplay the [User List] window.
Cancel	Redisplay the [User List] window without setting the specified values.

(1) Menu operation

[User Administration] → [User List] → [Add User] button

(2) GUI operation

- 1 Specify user management information, and click the [Apply] button.
Then, the specified management information is set, and the [User List] window is displayed again.

5.4.1.2 [Edit User] window

User management information can be changed in the [Edit User] window.

System Partition Switch User Administration Network Configuration Maintenance Logout

>User Administration >User List >Edit User

User List
Change Password
Who

Edit User Help

Click the Apply Button to apply all changes.

User Name	Administrator
Password	
Confirm Password	
Privilege	<input checked="" type="radio"/> Admin <input type="radio"/> Operator <input type="radio"/> User <input type="radio"/> CE
Status	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Full Name	Default Administrator (optional)

Apply Cancel

Figure 5.78 [Edit User] window

Table 5.116 Displayed and setting items in the [Edit User] window

Item	Description
User name	Specify a user name. The user name must be from 8 to 32 characters long. You can use the following characters for user names: 0-9, a-z, A-Z, - (hyphen), _ (underscore) The first character must be one of a-z or A-Z.
Password	Specify a password. The password must be from 8 to 32 characters long. You can use the following characters for passwords: 0-9, a-z, A-Z, special characters: ! " # \$ % & ' () = - ^ ~ \ @ ` [] { } : * ; + ? < . > , / _
Confirm Password	Enter the password again for confirmation.

Item	Description
Privilege	User account privilege <ul style="list-style-type: none"> • [User]: Permitted only to refer to the PRIMEQUEST-series machine status. • [CE]: Permitted to refer to the PRIMEQUEST-series machine status and operate maintenance. • [Operator]: Permitted to refer to the PRIMEQUEST-series machine status and configure system settings. • [Administrator]: Permitted to perform every type of operation.
Status	Specify the current account status: <ul style="list-style-type: none"> • Enabled: Available • Disabled: Not available
Full Name	Enter a real name or other such name that is related to [User Name]. The full name must not be longer than 32 characters.

Since user privileges are set to restrict users' operation of the MMB, users who do not have the appropriate privileges cannot operate the MMB. For details on operation restrictions according to privileges, see [Section 5.1, "List of Menus in the Web-UI Window."](#)

Table 5.117 User privilege levels and operation restrictions

Privilege level	Operation	Description
User	P	Referring to the PRIMEQUEST system status
	NP	Setting system configuration information
	NP	Turning on or off power to a partition
CE	P	Referring to the PRIMEQUEST system status
	NP	Changing user management and network settings
	NP	Turning on or off power to a partition or the system by using the normal power-on or power-off procedure
	P	Performing maintenance operations
Operator	P	Referring to and setting the system status
	NP	Changing user management settings and LAN configurations
Administrator	P	All operations

[Operation] P: Permitted NP: Not permitted

Table 5.118 Buttons in the [Edit User] window

Button	Description
Apply	Sets the specified values and redisplay the [User List] window.
Cancel	Redisplay the [User List] window without setting the specified values.

(1) Menu operation

[User Administration] → [User List] → [Edit User] button

(2) GUI operation

- 1 Specify user management information, and click the [Apply] button.
Then, the specified management information is set, and the [User List] window is displayed again.

5.4.2 [Change Password] window

Users who are logged in can change their own passwords in the [Change Password] window.

Figure 5.79 [Change Password] window

Table 5.119 Displayed and setting items in the [Change Password] window

Item	Description
Current Password	Enter the password of the user who is logged in.
New Password	Specify a new password. The password must be from 8 to 32 characters long. You can use the following characters for passwords: 0-9, a-z, A-Z, special characters: ! " # \$ % & ' () = - ^ ~ \ @ ` [] { } : * ; + ? < . > , / _
Confirm New Password	Enter the new password again for confirmation.

Table 5.120 Buttons in the [Change Password] window

Button	Description
Apply	Specify a new password, and click the [Apply] button to register the password.
Cancel	Click the [Cancel] button to revert to the original setting without registering the new password.

(1) Menu operation

[User Administration] → [Change Password]

(2) GUI operation

- 1 Enter the current password into [Current Password], enter the new password into both [New Password] and [Confirm New Password], and click the [Apply] button.
The new password is then set.

5.4.3 [Who] window

The [Who] window displays a list of the users currently accessing the MMB Web-UI.

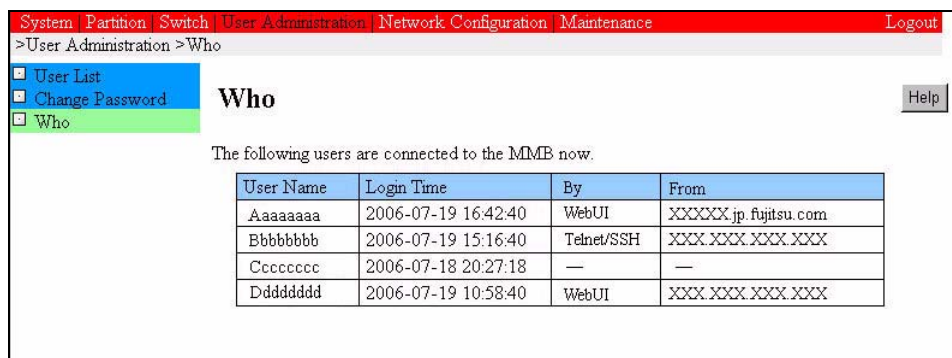


Figure 5.80 [Who] window

Table 5.121 Displayed items in the [Who] window

Item	Description
User Name	User name of the user logging in via a serial port, Telnet/SSH, or MMB Web-UI
Login Time	Login times of the accessing users
By	MMB Web-UI or Telnet/SSH used by the user for login Remarks: A hyphen (-) is displayed when the user logs in via a serial port of the MMB.
From	Host name or IP address of the remote host from which the user logs in remotely Remarks: A hyphen (-) is displayed when the user logs in via a serial port of the MMB.

(1) Menu operation

[User Administration] → [Who]

(2) GUI operation

None

5.5 Network Configuration Menu

The [Network Configuration] menu can be used to:

- Display and specify network interfaces
- Specify network protocols
- Configure security settings

Only users with the administrator privilege can access this menu.

Note:

MMB uses the following TCP/IP port numbers.

- 623/udp: RMCP communication
- 664/udp: RMCP communication
- 5000: event communication from PSA

5.5.1 [Date/Time] window

The MMB date and time can be set in the [Date/Time] window.

Remarks:

- When NTP is Enable, Date and Time cannot be set.
- To enable the NTP server function of the MMB only, use the following setting, but it is not a typical configuration.

NTP: Enable

NTP Server1: 0.0.0.0

to NTP Server 3

System Partition Switch User Administration Network Configuration Maintenance Logout

>Network Configuration >Date/Time

■ Date/Time

■ Network Interface

■ Management LAN Port Config

■ Network Protocols

■ Refresh Rate

■ SNMP Configuration

■ SSL

■ SSH

■ Remote Server Management

■ Access Control

■ Alarm E-Mail

■ License

Date/Time

Click the Apply Button to apply all changes.

Date	2005 - 12 - 14
Time	<input type="checkbox"/> Modify the Time 15 : 18 : 46
Time zone	Asia / Tokyo
NTP	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
NTP Time Correction Mode	<input type="radio"/> Step <input checked="" type="radio"/> Slew
NTP Server1	10 . 23 . 4 . 3
NTP Server2	0 . 0 . 0 . 0
NTP Server3	0 . 0 . 0 . 0
The Latest Sync Date/Time	

Apply Cancel

Figure 5.81 [Date/Time] window

Table 5.122 Displayed and setting items in the [Date/Time] window

Item	Description
Date	Specify a date.
Time	Specify hour:minute:second (24-hour format). To set the time, check the check box "Modify the Time" and entry in the hh:mm:ss time field. Because the MMB time when this window is opened is displayed, reloading is required to update the display. When the automatic update is set, the time when the window is updated is displayed.
Time zone	Select a time zone from the pulldown list.
NTP	Enable or disable the NTP function. If [Enable] is specified, the MMB synchronizes the NTP server time settings on NTP1 to NTP3, which are listed below. <ul style="list-style-type: none">• Enable: Enable the NTP function.• Disable: Disable the NTP function. To use the MMB as an NTP server from another client, [Enable] must be set for the NTP function. The default setting is [Disable].

Item	Description
NTP Time Correction Mode (MMB firmware version 3.24 or later)	<p>Set the NTP time correction mode.</p> <p>Remarks: This item is available if "enable" is set for the NTP function. If "disable" is set for the function, this setting is grayed out.</p> <ul style="list-style-type: none"> • Step mode As long as the time difference with the NTP time server is within 128 ms, time correction is performed in slew mode. If the difference exceeds 128 ms, time is corrected in a single step. • Slew mode Regardless of the actual difference with the NTP time server, time is corrected gradually. However, since only a correction by 0.0005 seconds is possible per second, time can only be corrected by a maximum of 43 seconds in one day. The default setting is "Step mode."
NTP Server1	Specify the IP address of the primary NTP server. (This setting is valid only if [Enable] is set for the NTP function. If the setting is [Disable], this item is grayed out.)
NTP Server2	Specify the IP address of the secondary NTP server. (This setting is valid only if [Enable] is set for the NTP function. If the setting is [Disable], this item is grayed out.)
NTP Server3	Specify the IP address of the tertiary NTP server (This setting is valid only if [Enable] is set for the NTP function. If the setting is [Disable], this item is grayed out.)
The Latest Sync Data/Time	Date and time of the latest time synchronization between the specified NTP server and the MMB

Table 5.123 Buttons in the [Date/Time] window

Button	Description
Apply	Specify a date, time zone, etc., and click the [Apply] button to set the specified values.
Cancel	Click the [Cancel] button to revert to the original settings for the date, time zone, etc.

(1) Menu operation

[Network Configuration] → [Date/Time]

(2) GUI operation

- 1 Specify a date, time zone, etc., and click the [Apply] button.
The specified date, time zone, etc., are then set.

Note:

- If you change the time zone during an REMCS operation, notify the REMCS Center of the new time zone. Check the connection by referring to "Connection check" in Section 7.1.3, "REMCS service operation procedure" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN).
- [NTP Time Correction Mode] can be set if the MMB firmware version is 3.24 or later

5.5.2 [Network Interface] window

The [Network Interface] window allows you to specify IP addresses and other information for MMB access.

PRIMEQUEST 580A/540A/580/540/480/440

In this window, you can specify the following three types of IP addresses:

MMB #0 and MMB #1 have one physical IP address respectively, and a virtual IP address which is shared by both MMB #0 and MMB #1.

- | | |
|-----------------------|---|
| Virtual IP Address: | Specify the virtual IP address to be used to access the Web-UI. If the MMB is duplicated, this virtual IP address will be taken by the active MMB. |
| IP Address for MMB#0: | This item is displayed and can be set if MMB#0 exists on the system. Specify the physical IP address to be assigned to the MMB#0 interface. The Web-UI is also accessible from this interface. If MMB#0 does not exist on the system, this table is unselectable. |
| IP Address for MMB#1: | This item is displayed and can be set if MMB#1 exists on the system. Specify the physical IP address to be assigned to the MMB#1 interface. The Web-UI is also accessible from this interface. If MMB#1 does not exist on the system, this table is unselectable. |

PRIMEQUEST 520A/520/420

The specified IP addresses are accessed by using the MMB Web-UI or by using SNMP from the management server.

Note: When the virtual IP address is set, if the PRIMEQUEST server is accessed from external devices (for example, from a WebBrowser, maintenance terminal, REMCS, etc.), the virtual IP address is accessed. Therefore, it is impossible to access Web-UI by specifying the physical IP address of MMB #0 or MMB #1.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

- After a setting for [MMB IP Address] is changed in this window, network operation is temporarily stopped to reflect the new setting, suppressing display of the Web-UI.

In such cases, you can reconnect to and display the Web-UI by making a selection from the menu.

The physical IP address and the virtual IP address of MMB#0 and MMB#1 set in the same subnet.

The screenshot shows the 'Network Interface' configuration window. On the left is a sidebar menu with options: Date/Time, Network Interface (selected), Management LAN Port Conf, Network Protocols, Refresh Rate, SNMP Configuration, SSL, SSH, Remote Server Management, Access Control, Alarm E-Mail, and License. The main content area is titled 'Network Interface' and includes a 'Help' button. Below the title is a note: 'Click the Apply button for all changes to take effect.'

Virtual IP Address

Hostname	PRIMEQUEST1010501005			
IP Address	10	24	16	140
Subnet Mask	255	255	255	0
Gateway address	10	24	16	1

MMB#0 IP Address

Interface	<input type="radio"/> Enable <input checked="" type="radio"/> Disable			
Hostname (optional)				
IP Address	0	0	0	0
Subnet Mask	255	255	255	255
Gateway address	0	0	0	0

MMB#1 IP Address

Interface	<input type="radio"/> Enable <input checked="" type="radio"/> Disable			
Hostname (optional)				
IP Address	0	0	0	0
Subnet Mask	255	255	255	255
Gateway address	0	0	0	0

DNS (optional)

DNS	<input type="radio"/> Enable <input checked="" type="radio"/> Disable			
DNS Server 1	0	0	0	0
DNS Server 2	0	0	0	0
DNS Server 3	0	0	0	0

At the bottom right are 'Apply' and 'Cancel' buttons.

Figure 5.82 [Network Interface] window

Table 5.124 Displayed and setting items in the [Network Interface] window

Item	Description
Virtual IP Address (PRIMEQUEST 580A/540A/580/540/480/440), IP Address (PRIMEQUEST 520A/520/420)	
Hostname	Specify a host name. Remarks: The characters that can be input are lowercase letters a to z, uppercase letters A to Z, numbers 0 to 9, a hyphen (-), and a dot (.). The following restrictions are imposed: <ul style="list-style-type: none"> • The host name must begin with an alphabetic character. • The host name must not begin with a hyphen (-) or dot (.). The default host name is "PRIMEQUEST" + the product serial number.
IP Address	Specify an IP address.
Subnet Mask	Specify the subnet mask.
Gateway address	Specify the gateway IP address.
MMB#0 IP Address (only for PRIMEQUEST 580A/540A/580/540/480/440)	
Interface	Specify whether to use the MMB#0 interface: Enable: Uses the interface Disable: Does not use the interface
Host name (optional)	Host name
IP Address	Specify an IP address.
Subnet Mask	Specify the subnet mask.
Gateway address	Specify the gateway IP address.
MMB#1 IP Address (only for PRIMEQUEST 580A/540A/580/540/480/440)	
Interface	Specify whether to use the MMB#1 interface: Enable: Uses the interface Disable: Does not use the interface
Host name (optional)	Hostname is displayed.
IP Address	Specify an IP address.
Subnet mask	Specify the subnet mask.
Gateway address	Specify the gateway IP address.
DNS (optional)	
DNS	Specify whether to use DNS servers: Enable: Uses DNS servers Disable: Does not use DNS servers The default setting is [Disable].
DNS Server 1	Specify the IP address of the primary DNS server.
DNS Server 2	Specify the IP address of the secondary DNS server.
DNS Server 3	Specify the IP address of the tertiary DNS server.

Table 5.125 Buttons in the [Network Interface] window

Button	Description
Apply	Enter an IP address, subnet mask, etc., and click the [Apply] button to set the entered values.
Cancel	Click the [Cancel] button to revert to the original settings for the IP address, subnet mask, etc.

(1) Menu operation

[Network Configuration] → [Network Interface]

(2) GUI operation

- 1 Enter a subnet mask, IP address, etc. for network interface information, and click the [Apply] button to set the specified values.
The specified IP address, subnet mask, etc. are then set.

5.5.3 [Management LAN Port Configuration] window

The [Management LAN Port Configuration] window can be used to specify the speed and duplex mode of each MMB port and set up a VLAN between the LAN port of the partition connected to the management LAN and the MMB LAN port.

Note: If you change a virtual IP address (PRIMEQUEST 580A/540A/580/540/480/440) or the IP address (PRIMEQUEST 520A/520/420), the system terminates its connection to the MMB Web-UI. To use the MMB Web-UI, log in again.

Remarks: If the Speed/Duplex setting of an MMB LAN port is not "Auto," use a cross cable for the interconnection between the MMB LAN port and the switching hub.

However, when using an REMCS port of a PRIMEQUEST 580A/540A MMB, or an MMB with a part number (*) that ends in 004AB or lower, the following notes apply.

- * Confirm the part number of the MMB with the Part Number item in the [MMB#x] window (Click [System] → [MMB] → [MMB#x].).
- If the Speed/Duplex setting of the REMCS port is set to other than "AUTO," use a LAN cable.
- If the Speed/Duplex setting of the device to connect to the REMCS port is set to other than "AUTO," set the Speed/Duplex setting of the REMCS port of the MMB to the same setting as that of the device.

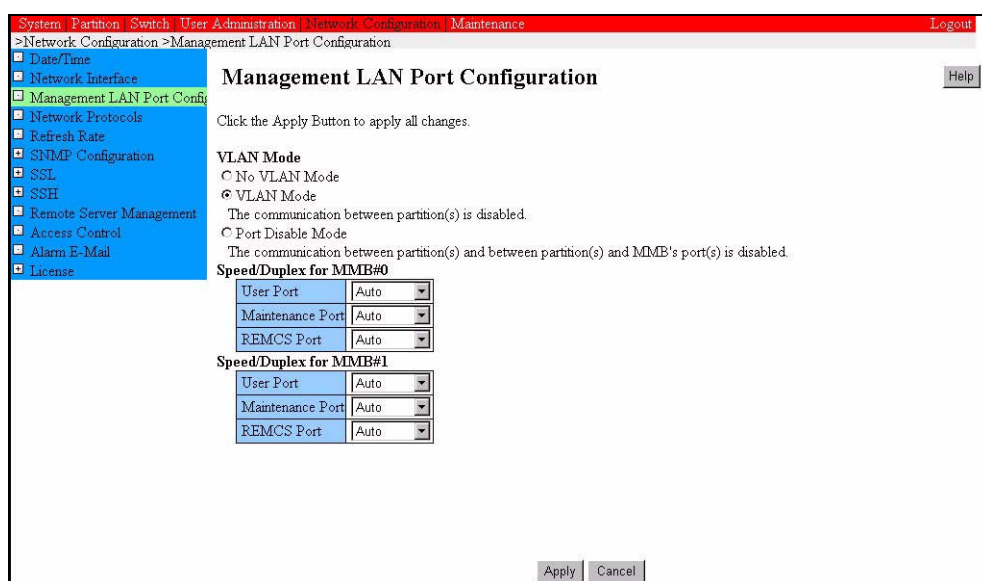


Figure 5.83 [Management LAN Port Configuration] window

Table 5.126 Displayed and setting items in the [Management LAN Port Configuration] window

Item	Description
VLAN Mode	Specify the VLAN mode of the MMB hub: <ul style="list-style-type: none">• No VLAN mode: Enables communication between the MMB port and the port of any partition.• VLAN mode: Blocks communication between partitions.• Port disable mode: Blocks communication between partitions and communication between the MMB port and a partition. The default setting is [VLAN mode].
Speed/Duplex for MMB (PRIMEQUEST 580A/540A/580/540/480/440 only)	
User port	Specify the speed and duplex mode: <ul style="list-style-type: none">• Auto• 100M/Full• 100M/Half• 10M/Full• 10M/Half The default setting is [Auto].
Speed/Duplex for MMB (PRIMEQUEST 520A/520/420 only)	
User port	Specify the speed and duplex mode: <ul style="list-style-type: none">• Auto• 100M/Full• 100M/Half• 10M/Full• 10M/Half The default setting is [Auto].
Maintenance port	Same as above
REMCS port	Same as above

Table 5.127 Buttons in the [Management LAN Port Configuration] window

Button	Description
Apply	Specify a VLAN mode, speed and duplex mode, etc., and click the [Apply] button to set the specified values.
Cancel	Click the [Cancel] button to revert to the original settings for the VLAN mode and speed and duplex mode, etc.

(1) Menu operation

[Network Configuration] → [Management LAN Port Configuration]

(2) GUI operation

- 1 Specify a VLAN mode, and click the [Apply] button.
The specified VLAN mode and speed and duplex mode are then set.

5.5.4 Setting a VLAN in an management LAN hub

This function makes the Speed/Duplex setting for each port on the MMB board. It also makes the VLAN setting for a LAN port on a partition that is connected to the MMB LAN port and to the administration LAN. Moreover, it sets the communication speed and communication method (Duplex) for each port on the MMB board. To make these settings, use administrator authority.

Remarks: When connecting the MMB LAN port to the switching hub unit, use a crossover cable when the Speed/Duplex setting of the MMB LAN port is set to other than "AUTO."

However, when using an REMCS port of a PRIMEQUEST 580A/540A MMB, or an MMB with a part number (*) that ends in 004AB or lower, the following notes apply.

- * Confirm the part number of the MMB with the Part Number item in the [MMB#x] window (Click [System] → [MMB] → [MMB#x].).
- If the Speed/Duplex setting of the REMCS port is set to other than "AUTO," use a LAN cable.
- If the Speed/Duplex setting of the device to connect to the REMCS port is set to other than "AUTO," set the Speed/Duplex setting of the REMCS port of the MMB to the same setting as that of the device.

VLAN functions of management LAN

The management LAN hub on the MMB accommodates partition networks, user ports, REMCS ports, and certified service engineer ports. If this hub is a typical hub, the following problems occur.

- Inter-partition communication is enabled, so that a transaction system installed in a partition can be accessed from another system installed in another partition, and this poses a security risk.
- A user transaction system can be viewed from an REMCS port and a certified service engineer port.

To solve these problems, VLAN functions are used in the management LAN hub. VLAN is a function for logically dividing each port of one switching hub into groups, each operated as an independent LAN.

The VLAN functions of the PRIMEQUEST management LAN can be used in one of the three modes below, so that the user can select the mode that is suited to the operation method.

VLAN mode of management LAN

The following three modes are available. Default is VLAN Mode.

- Inter-partition communication connection mode (No VLAN mode)
Communication between all partition ports is enabled. However, communication between REMCS ports, certified service engineer ports, and user ports, and communication between REMCS ports, certified service engineer ports, and partition ports are disabled. Communication is possible only between the ports indicated by [O] in [Table 5.128](#).

Table 5.128 Inter-partition communication connection mode (No VLAN mode)

No VAN mode	User port	Certified service engineer port	REMCS port	MMB	Partition port
User port	O	X	X	O	O
Certified service engineer port	X	O	X	O	X
REMCS port	X	X	O	O	X
MMB	O	O	O	O	O
Partition port	O	X	X	O	O

O: Communication is possible.

X: Communication is impossible.

- Inter-partition communication disconnection mode (VLAN mode)
Inter-partition communication is disconnected. However, communication between user ports and the ports in each partition and intra-cabinet communication between the MMB and each partition are enabled.
Communication is possible only between the ports indicated by [O] in [Table 5.129](#).
Communication between user ports, the MMB, and partition ports is enabled.

Table 5.129 Inter-partition communication disconnection mode (VLAN mode)

VLAN mode	User port	Certified service engineer port	REMCS port	MMB	Partition port
User port	O	X	X	O	O
Certified service engineer port	X	O	X	O	X
REMCS port	X	X	O	O	X
MMB	O	O	O	O	O
Partition port	O	X	X	O	X

O: Communication is possible.

X: Communication is impossible.

● Partition system communication disconnection mode (Port Disable Mode)

Mode for upgraded security

Management LAN communication from all partition ports is disconnected. Intra-cabinet communication between the MMB and each partition port is disabled.

Communication is possible only between the ports indicated by [O] in [Table 5.130](#).

Table 5.130 Partition system communication disconnection mode (Port Disable Mode)

Port disable mode	User port	Certified service engineer port	REMCS port	MMB	Partition port
User port	O	X	X	O	X
Certified service engineer port	X	O	X	O	X
REMCS port	X	X	O	O	X
MMB	O	O	O	O	X
Partition port	X	X	X	X	X

O: Communication is possible.

X: Communication is impossible.

5.5.5 [Network Protocols] window

The network protocols of the MMB can be specified in the [Network Protocols] window.

System Partition Switch User Administration Network Configuration Maintenance Logout

>Network Configuration >Network Protocols

Network Protocols Help

Click the Apply Button to apply all changes.

Web (HTTP/HTTPS)

HTTP	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
HTTP Port#[1024-65535]	8081
HTTPS	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
HTTPS Port#[432,1024-65535]	432
Timeout (sec) [0,60-9999]	9999

Telnet

Telnet	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Telnet Port#[23,1024-65535]	23
Timeout (sec) [0,60-9999]	9999

SSH

SSH	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SSH Port#[22,1024-65535]	22
Timeout (sec) [0,60-9999]	0

SNMP

SNMP Agent	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Agent Port#[161,1024-65535]	161
SNMP Trap	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Trap Port#[162,1024-65535]	162

Apply Cancel

Figure 5.84 [Network Protocols] window

Table 5.131 Displayed and setting items in the [Network Protocols] window

Item	Description
Web (HTTP/HTTPS)	
HTTP	Specify whether to use HTTP: <ul style="list-style-type: none">• Enable: Uses HTTP• Disable: Does not use HTTP The default setting is [Disable].
HTTP Port#[1024-65535]	Specify the port number used for HTTP communication. The default setting is 8081.
HTTPS	Specify whether to use HTTPS: <ul style="list-style-type: none">• Enable: Uses HTTPS• Disable: Does not use HTTPS The default setting is [Disable]. Remarks: [Enable] can be set only if a valid SSL certificate is registered. If [Enable] is specified when no valid SSL certificate is registered, an error message is displayed.

Item	Description
HTTPS Port# [432, 1024-65535]	Specify the port number used for HTTPS communication. The default setting is 432.
Timeout (sec)	Specify in seconds the amount of time that elapses without input in an HTTP/HTTPS connection before a timeout occurs. The setting range is 0, 60 to 9999 seconds. If 0 is specified, no timeout occurs and the connection remains established. The default setting is 600 seconds.

Telnet

Telnet	Specify whether to use Telnet: <ul style="list-style-type: none"> • Enable: Uses Telnet • Disable: Does not use Telnet The default setting is [Disable].
Port# [23, 1024-65535]	Specify the port number used for Telnet communication. The default setting is 23.
Timeout (sec)	Specify in seconds the amount of time that elapses without input in a Telnet connection before a timeout occurs. The setting range is 0, 60 to 9999 seconds. If 0 is specified, no timeout occurs and the connection remains established. The default setting is 600 seconds.

SSH

SSH	Specify whether to use SSH: <ul style="list-style-type: none"> • Enable: Uses SSH • Disable: Does not use SSH The default setting is [Disable].
Port# [22, 1024-65535]	Specify the port number used for SSH communication. The default setting is 22.
Timeout (sec)	Specify in seconds the amount of time that elapses in an SSH connection before a timeout occurs. The setting range is 0, 60 to 9999 seconds. If 0 is specified, no timeout occurs and the connection remains established. The default setting is 600 seconds.

SNMP

SNMP Agent	Specify whether to use SNMP Agent: <ul style="list-style-type: none"> • Enable: Uses SNMP Agent • Disable: Does not use SNMP Agent The default setting is [Disable].
Agent Port#[161, 1024- 65535]	Specify the port number used for SNMP Agent. The setting range is 161,1024 to 65535. The default setting is 161.
SNMP Trap	Specify whether to use SNMP traps. <ul style="list-style-type: none"> • Enable: Uses SNMP traps • Disable: Does not use SNMP traps The default setting is [Disable].
Trap port#[162, 1024- 65535]	Specify the port number used for SNMP traps. The setting range is 162,1024 to 65535. The default setting is 162.

Table 5.132 Buttons in the [Network Protocols] window

Button	Description
Apply	Specify a port number, timeout time, etc., and click the [Apply] button to set the specified values.
Cancel	Click the [Cancel] button to revert to the original settings for the port number, timeout time, etc.

(1) Menu operation

[Network Configuration] → [Network Protocols]

(2) GUI operation

- 1 Specify a port number, timeout time, etc. for protocol information, and click the [Apply] button to set the specified values.
The specified port number, timeout time, etc. are then set.

5.5.6 [Refresh Rate] window

The [Refresh Rate] window can be used to specify automatic refresh for a Web-UI page whose contents change.

This automatic refresh mode can be set and managed for individual users.

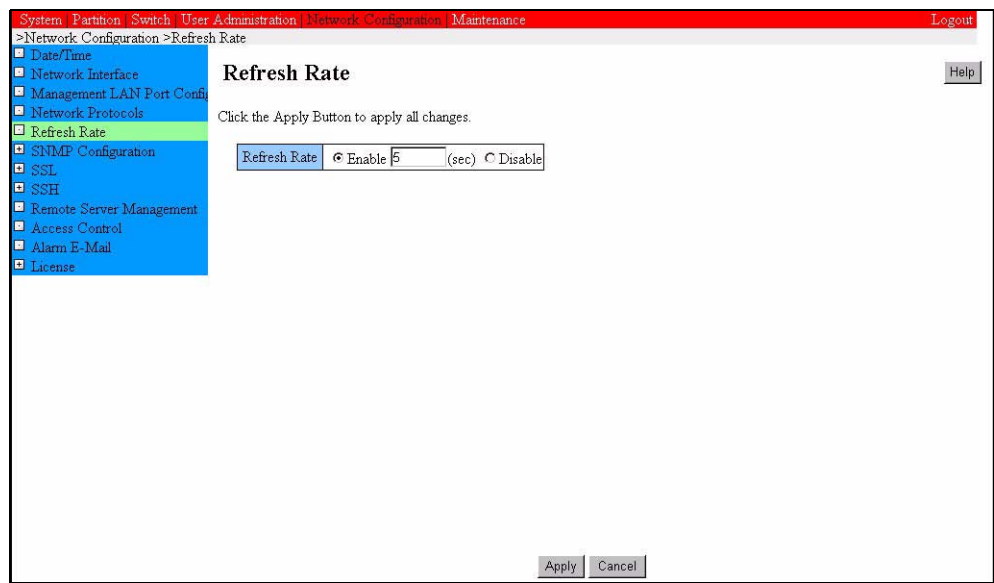


Figure 5.85 [Refresh Rate] window

Table 5.133 Displayed or setting item in the [Refresh Rate] window

Item	Description
Refresh Rate	Specify whether to periodically refresh a page whose displayed contents change. <ul style="list-style-type: none">• Enable: It is possible to specify the refresh rate in seconds in a range from 5 to 999 seconds. The pages will be refreshed at the specified intervals.• Disable: Automatic irregular refreshes. The default setting is [Disable].

Table 5.134 Buttons in the [Refresh Rate] window

Button	Description
Apply	Specify whether to enable periodic refresh, click the [Apply] button, and the specified refresh information is set.
Cancel	Click the [Cancel] button to revert to the original settings in refresh information.

(1) Menu operation

[Network Configuration] → [Refresh Rate]

(2) GUI operation

- 1 Specify values in [Refresh Rate], and click the [Apply] button.
The specified refresh information is then set.

5.5.7 SNMP Configuration menu

The [SNMP Configuration] menu provides the following windows:

- [SNMP Community]
- [SNMP Trap]
- [SNMPv3 Configuration]

This section describes these windows and their operations.

Remarks: This configuration enables the system to obtain standard and extended MIB information and receive SNMP traps. The SNMP-based control manager software monitors the PRIMEQUEST hardware by obtaining MIB information and receiving SNMP traps. For details on the extended MIB information provided by the PRIMEQUEST control agent, see Chapter 9, "MIB Tree Provided by PRIMEQUEST" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN).

5.5.7.1 [SNMP Community] window

SNMP settings can be configured in the [SNMP Community] window.

Up to 16 communities can be set up in the MMB.

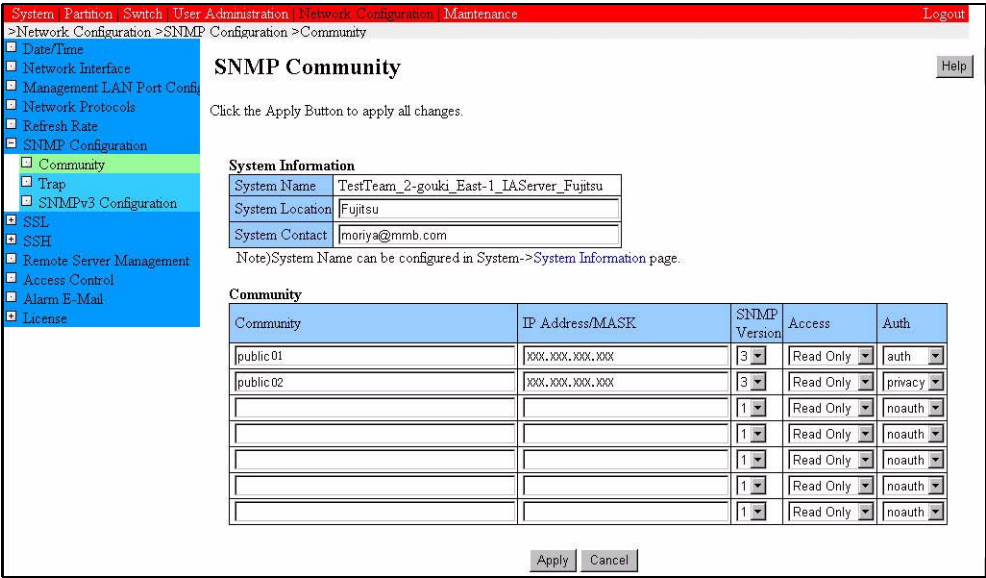


Figure 5.86 [SNMP Community] window

Table 5.135 Displayed and setting items in the [SNMP Community] window

Item	Description
System Information	
System Name	PRIMEQUEST system name specified in the [System Information] window
System Location	<p>Specify a system location.</p> <p>Remarks: Any of the following characters can be used: [0-9], [a-z], [A-Z], " "(en-size space), !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ .</p> <p>However, the following restrictions apply:</p> <ul style="list-style-type: none">- The following characters cannot be used at the beginning of a string: # (en-size space)- The following character cannot be used at the end of the string: (en-size space)

Item	Description
System Contact	<p>Specify a system contact.</p> <p>Remarks: Any of the following characters can be used: [0-9], [a-z], [A-Z], " "(en-size space), !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ .</p> <p>However, the following restrictions apply:</p> <ul style="list-style-type: none">- The following characters cannot be used at the beginning of a string: # (en-size space)- The following character cannot be used at the end of the string: (en-size space)
Community	
Community	<p>Specify an SNMP community string.</p> <p>Remarks: Any of the following characters can be used: [0-9],[a-z],[A-Z], " "(en-size space), !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ .</p> <p>However, the following characters cannot be used at the beginning of a string: " ' ` #</p>
IP Address/MASK	<p>Specify an IP address or the subnet mask for IP addresses that have access permission.</p>
SNMP Version	<p>Select an SNMP version:</p> <ul style="list-style-type: none">• 1• 2• 3
Access	<p>Select an access privilege:</p> <ul style="list-style-type: none">• Read Only: Read-only permission• Read Write: Read/write permission
Auth	<p>Select a security level: This item can be selected only if 3 is selected for [SNMP Version]. If 1 or 2 is selected for [SNMP Version], [noauth] is automatically set for the item.</p> <ul style="list-style-type: none">• noauth: The authentication function is not used.• auth: The authentication function is used.• priv: The authentication function and privacy function (data encryption) are used.

Table 5.136 Buttons in the [SNMP Community] window

Button	Description
Apply	Specify community settings and an IP address that has access permission, and click the [Apply] button to set the specified values.
Cancel	Click the [Cancel] button to revert to the original settings for a community and an IP address that has access permission.

(1) Menu operation

[Network Configuration] → [SNMP Configuration] → [Community]

(2) GUI operation

- Specifying community settings and other information
 - 1 Enter values for a community, an IP address that has access permission, an SNMP version, access privilege, authentication level, etc., and click the [Apply] button.
The entered values are then set.
- Clearing community settings and other information
 - 1 Clear community settings and the specified IP address that has access permission, and click the [Apply] button.
Values are cleared from the settings.

5.5.7.2 [SNMP Trap] window

SNMP trap destinations can be specified in the [SNMP Trap] window.

Up to 16 trap destinations can be set.

Figure 5.87 [SNMP Trap] window

Table 5.137 Displayed and setting items in the [SNMP Trap] window

Item	Description
Community/User	Specify a community or user name. Remarks: Any of the following characters can be used: [0-9], [a-z], [A-Z], " "(en-size space), !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ . However, the following characters cannot be used at the beginning of a string: " ' ` #
IP Address	Specify an IP address as a trap destination.
SNMP Version	Select an SNMP version: <ul style="list-style-type: none"> • 1: A version-1 SNMP trap is sent. • 2: A version-2 SNMP trap is sent. • 3: A version-3 SNMP trap is sent.

Item	Description
Auth	Specify the authentication level. <ul style="list-style-type: none">• noauth: Disables authentication and encryption based on a password (enables authentication based on a user name).• auth: Enables authentication based on a password but disables encryption based on a password.• priv: Enables authentication and encryption based on a password.
Auth Type	<ul style="list-style-type: none">• md5: Selects MD5 as the hash function for password-based encryption.• sha: Selects SHA as the hash function for password-based encryption.
Auth passphrase	Displays the packet encryption keyword used at the time of password-based authentication (no password-based encryption).
Priv passphrase	Displays the packet encryption keyword used at the time of password-based authentication and encryption.

Table 5.138 Buttons in the [SNMP Trap] window

Button	Description
Apply	Specify a community or user name, trap destination, etc., and click the [Apply] button to set the specified values.
Cancel	Click the [Cancel] button to revert to the original settings for the community or user name, trap destination, etc.
Test Trap	Click the [Test Trap] button to send a test trap to the current trap destination.

(1) Menu operation

[Network Configuration] → [SNMP Configuration] → [Trap]

(2) GUI operation

- Specifying SNMP trap information
 - 1 Enter a community or user name, trap destination IP address, SNMP version, and authentication level, and click the [Apply] button.
The entered values are then set.
- Sending a test trap
 - 1 Click the [Test Trap] button.
Values are cleared from the settings.
A test trap is sent.

5.5.7.3 [SNMP v3 Configuration] window

An engine ID unique to SNMP v3 as well as user information can be specified in the [SNMP v3 Configuration] window.

Up to 16 SNMP v3 users can be registered. Registered users are listed in this window.

Note: If the engine ID or IP address is changed, setup for users who have been registered for SNMP v3 access must be completed again, starting from the beginning. The SNMP daemon must be restarted to validate registered users. Therefore, when the [Apply] button in the window is clicked, the SNMP service stops temporarily.

System Partition Switch User Administration Network Configuration Maintenance Logout

>Network Configuration >SNMP Configuration >SNMPv3 Configuration

SNMP v3 Configuration

Click the Apply Button to apply all changes.

Engine ID

User Name	Auth Type	Auth passphrase	Priv passphrase
		Auth passphrase (confirm)	Priv passphrase (confirm)
<input type="checkbox"/>	<input type="radio"/> MD5	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> SHA	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> MD5	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> SHA	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> MD5	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> SHA	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> MD5	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	<input type="radio"/> SHA	<input type="text"/>	<input type="text"/>

Apply Cancel

Figure 5.88 [SNMP v3 Configuration] window

Table 5.139 Displayed and setting items in the [SNMP v3 Configuration] window

Item	Description
Engine ID	Specify an engine ID. Remarks: Any of the following characters can be used: [0-9], [a-z], [A-Z], " "(en-size space), !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ . However, the following restrictions apply: - The following characters cannot be used at the beginning of a string: # (en-size space) - The following character cannot be used at the end of the string: (en-size space)
User	
User Name	Specify a user name. Checking the check box of the target user enables input of a user name. Remarks: Any of the following characters can be used: [0-9],[a-z],[A-Z], !" (double quotation mark) # \$ % & ' (single quotation mark) () = - ^ ~ \ (or back slash) @ ` [] { } : * ; + ? < . > , / _ . However, the following characters cannot be used at the beginning of a string: " ' ` #
Auth Type	Select an authentication type: <ul style="list-style-type: none"> • MD5: Uses MD5 as a hash function for password encryption • SHA: Uses SHA as a hash function for password encryption
authpassphrase	Keyword used for packet encryption if password-based authentication (no encryption) is enabled.
privpassphrase	Keyword used for packet encryption if password-based authentication and encryption is enabled.

Table 5.140 Buttons in the [SNMP v3 Configuration] window

Button	Description
Apply	Select a user, and click the [Apply] button to restart the SNMP daemon to reflect the user's changes.
Cancel	Click the [Cancel] button to not change information.

(1) Menu operation

[Network Configuration] → [SNMP Configuration] → [SNMPv3 Configuration]

(2) GUI operation

- Reflecting a selected user's settings
 - 1 Check the check box of a user, enter necessary information, and click the [Apply] button.
The selected user's settings are then reflected. The SNMP daemon is restarted in this procedure.
- Disabling a selected user
 - 1 To disable a user's access, check the check box of the user, enter nothing for the user name, and click the [Apply] button.
The selected user's access is then disabled.

5.5.8 SSL menu

The [SSL] menu provides the following windows:

- [Create CSR]
- [Export Key/CSR]
- [Import Certificate]
- [Create Selfsigned Certificate]

This section describes these windows and their operations.

5.5.8.1 [Create CSR] window

The [Create CSR] window allows you to create a private key and a corresponding Certificate Signing Request (CSR).

The values entered in this window must comply with the guidelines of the certificate authority selected as the destination because each certificate authority has unique guidelines.

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>Network Configuration>SSL>Create CSR

Create CSR Help

Click the Create CSR Button for creating a new Key and a CSR(Certificate Signing Request).

SSL certificate status: A signed certificate is installed.

Key length	<input checked="" type="radio"/> 1024 <input type="radio"/> 2048
Country Name(ISO ex [JP][US])	
State or Province Name	
Locality Name	
Organization Name	
Organization Unit Name	
Common Name	
E-Mail Address	

Create CSR Cancel

Figure 5.89 [Create CSR] window

Table 5.141 Displayed and setting items in the [Create CSR] window

Item	Description
SSL certificate status	Current installation status of an SSL certificate: <ul style="list-style-type: none">• No certificate is installed.• CSR has been generated.• A self-signed certificate is installed.• A signed certificate is installed.
Key length	Select a key length (number of bits) for the created private key by clicking the corresponding radio button: <ul style="list-style-type: none">• 1024• 2048
Country Name	Specify two alphabetic characters as the ISO country code of the owner in the created CSR: <ul style="list-style-type: none">• Japan: JP• USA: US
State or Province Name	Specify up to 56 valid characters as the state or province name of the owner in the created CSR.
Locality Name	Specify up to 56 valid characters as the city name of the owner in the created CSR.
Organization Name	Specify up to 56 valid characters as the organization name (company name) of the owner in the created CSR.
Organization Unit Name	Specify up to 56 valid characters as the organization unit name of the owner in the created CSR.
Common Name	Specify up to 56 valid characters as the server FQDN of the owner in the created CSR. Example: www.mycompany.com The browser uses this information to check the website. Some browsers refuse to establish a secure connection unless the same name is set for the server name and [Common Name] in the electronic certificate. The value in [Common Name] must not include a protocol specifier (http://), port number, or path name. Also, no wildcard, such as "*" and "?", or IP address can be used.
Email Address	Specify up to 40 valid characters as the e-mail address of the owner in the created CSR.

Table 5.142 Buttons in the [Create CSR] window

Button	Description
Create CSR	Specify the private key length, ISO country code of the owner, etc., click the [Create CSR] button, and a dialog box opens. Clicking the [OK] button in the dialog box creates the private key and CSR.
Cancel	Clicking the [Cancel] button cancels the creation of a private key and a CSR. The private key length and the owner's ISO country code are restored to the initial information.

(1) Menu operation

[Network Configuration] → [SSL] → [Create CSR]

(2) GUI operation

- 1 Specify the private key length, ISO country code of the owner, etc., and click the [Create CSR] button.
A dialog box opens to inform the user that the existing private key cannot be used once a new private key is created.
- 2 Click the [OK] button in the dialog box.
A new private key and a certificate signing request are created. This may take a few minutes. A confirmation dialog box opens when they have been created.
- 3 Click the [OK] button in the confirmation dialog box to register the new private key.
The new private key is registered, and the [Export Key/CSR] window is displayed.

5.5.8.2 [Export Key/CSR] window

The [Export Key/CSR] window allows you to export a private key or Certificate Signing Request (CSR) from the MMB.

Note: For security reasons, care must be taken in storage of a private key. It is preferable to back up the private key because it is required for using the certificate issued for it.

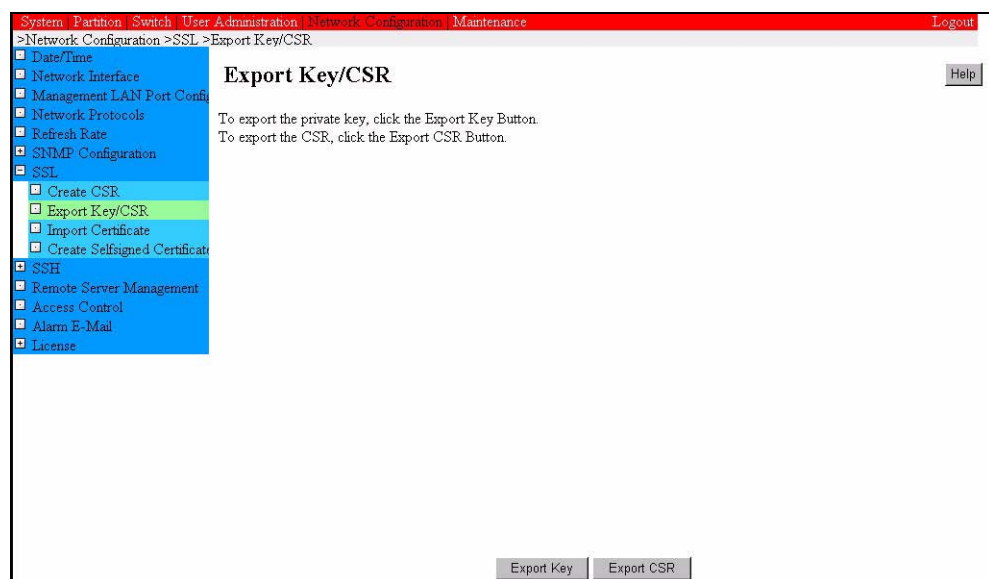


Figure 5.90 [Export Key/CSR] window

Table 5.143 Buttons in the [Export Key/CSR] window

Item	Description
Export Key	Exports a private key.
Export CSR	Exports a CSR.

(1) Menu operation

[Network Configuration] → [SSL] → [Export Key/CSR]

(2) GUI operation

- Exporting a private key
 - Click the [Export Key] button.
A dialog box opens.
 - Specify a save path in the dialog box.
The exported private key is saved with the specified path.

- Exporting a CSR
 - 1 Click the [Export CSR] button.
A dialog box opens.
 - 2 Specify a save path in the dialog box.
The exported CSR is saved with the specified path.

5.5.8.3 [Import Certificate] window

The [Import Certificate] window can be used to import a signed electronic certificate from the certifying to the MMB.



Figure 5.91 [Import Certificate] window

Table 5.144 Buttons in the [Import Certificate] window

Item	Description
Browse	Opens a file selection dialog box.
Import	Imports an electronic certificate.
Cancel	Cancels importing a file.

(1) Menu operation

[Network Configuration] → [SSL] → [Import Certificate]

(2) GUI operation

- 1 Click the [Browse] button, select the file to be imported, and click the [Import] button.
The file with the electronic certificate is imported.

5.5.8.4 [Create Selfsigned Certificate] window

A self-signed certificate can be created in the [Create Selfsigned Certificate] window.

Remarks: Before creating a self-signed certificate, make sure that [Disable] is set in [HTTPS] in the [Network Protocols] window. If [Enable] is set, set [Disable] before creating a self-signed certificate in this window.

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>Network Configuration>SSL>Create Selfsigned Certificate

Create Selfsigned Certificate

Selfsigned Certificate is not able to create, because HTTPS is enabled.

SSL certificate status: A signed certificate is installed.

Key length: ☒ 1024 ☐ 2048

Term(1-4095 days):

Country Name(ISO ex [JP][US]):

State or Province Name:

Locality Name:

Organization Name:

Organization Unit Name:

Common Name:

E-Mail Address:

Figure 5.92 [Create Selfsigned Certificate] window

Table 5.145 Displayed and setting items in the [Create Selfsigned Certificate] window

Item	Description
SSL certificate status	Current installation status of an SSL certificate: <ul style="list-style-type: none">No certificate is installed.CSR has been generated.A self-signed certificate is installed.A signed certificate is installed.
Key length	Select a key length (number of bits) for the created private key by clicking the corresponding radio button: <ul style="list-style-type: none">10242048
Term (1-4095 days)	Specify the validity term in number of days for the created self-signed certificate.
Country Name	Specify two alphabetic characters as the ISO country code of the owner in the created self-signed certificate: <ul style="list-style-type: none">Japan: [JP]USA: [US]
State or Province Name	Specify up to 56 valid characters as the state or province name of the owner in the created self-signed certificate.

Item	Description
Locality Name	Specify up to 56 valid characters as the city name of the owner in the created self-signed certificate.
Organization Name	Specify up to 56 valid characters as the organization name (company name) of the owner in the created self-signed certificate.
Organization Unit Name	Specify up to 56 valid characters as the organization unit name of the owner in the created self-signed certificate.
Common Name	Specify up to 56 valid characters as the server domain name of the owner in the created self-signed certificate.
Email Address	Specify up to 40 valid characters as the e-mail address of the owner in the created self-signed certificate.

Table 5.146 Buttons in the [Create Selfsigned Certificate] window

Button	Description
Create Self-signed Certificate	Specify the private key length, ISO country code of the owner, etc., click the [Create Self-signed Certificate] button, and a dialog box opens. Click the [OK] button in the dialog box to create a self-signed certificate.
Cancel	Click [Cancel] button to cancel creating a certificate.

(1) Menu operation

[Network Configuration] → [SSL] → [Create Selfsigned Certificate]

(2) GUI operation

- 1 Before creating a self-signed certificate, make sure that [Disable] is set in [HTTPS] in the [Network Protocols] window. If [Enable] is set, set [Disable] (see [Section 5.5.5, "\[Network Protocols\] window"](#)).
- 2 Specify the private key length, ISO country code of the owner, etc., and click the [Create Self-signed Certificate] button.
A confirmation dialog box opens.
- 3 Click the [OK] button in the dialog box.
A self-signed certificate is created. This takes a few minutes. When it has been created, the window displays "SSL certificate status: A Self-signed certificate is installed.", indicating that the self-signed certificate has been installed.

5.5.9 SSH menu

The [SSH] menu provides the [Create SSH Server Key] window. This section explains the [Create SSH Server Key] window and its operations.

5.5.9.1 [Create SSH Server Key] window

A private key for the SSH server can be created in the [Create SSH Server Key] window.

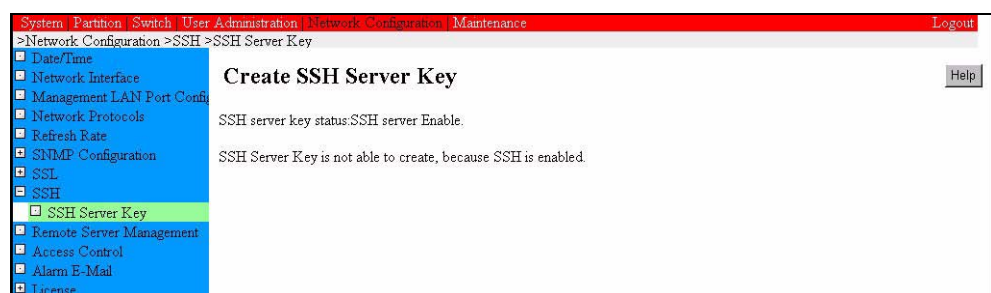


Figure 5.93 [Create SSH Server Key] window

Table 5.147 Displayed item in the [Create SSH Server Key] window

Item	Description
SSH Server Key status	Current installation status of an SSH server private key: <ul style="list-style-type: none">• SSH server key is NOT installed.

Table 5.148 Button in the [Create SSH Server Key] window

Button	Description
Create SSH Server Key	Creates an SSH server private key.

(1) Menu operation

[Network Configuration] → [SSH] → [Create SSH Server Key]

(2) GUI operation

- 1 Before creating a private key, make sure that [Disable] is set in [SSH] in the [Network Protocols] window. If [Enable] is set, set [Disable] (see [Section 5.5.5, "\[Network Protocols\] window"](#)).
- 2 Click the [Create SSH Server Key] button in this window.
A private key is created. This may take a few minutes. A confirmation dialog box opens when it has been created.
- 3 Click the [OK] button in the confirmation dialog box to register the new private key.
The new private key is registered. To not register the new private key, click the [Cancel] button in the confirmation dialog box.
The new private key would then be discarded.

5.5.10 [Remote Server Management] window

User information required for MMB remote-control using RMCP can be specified in the [Remote Server Management] window.

Up to 24 users can be registered.

The default settings for all users are [Disabled] and [No Access]. Furthermore, the default user names are "User0" to "User23".

For MMB remote-control using RMCP, values must be specified in [User Name], [Password], and [Privilege], and [Enabled] must be set for the applicable user. Authentication for remote access uses the user names and passwords of users with [Enabled] set.

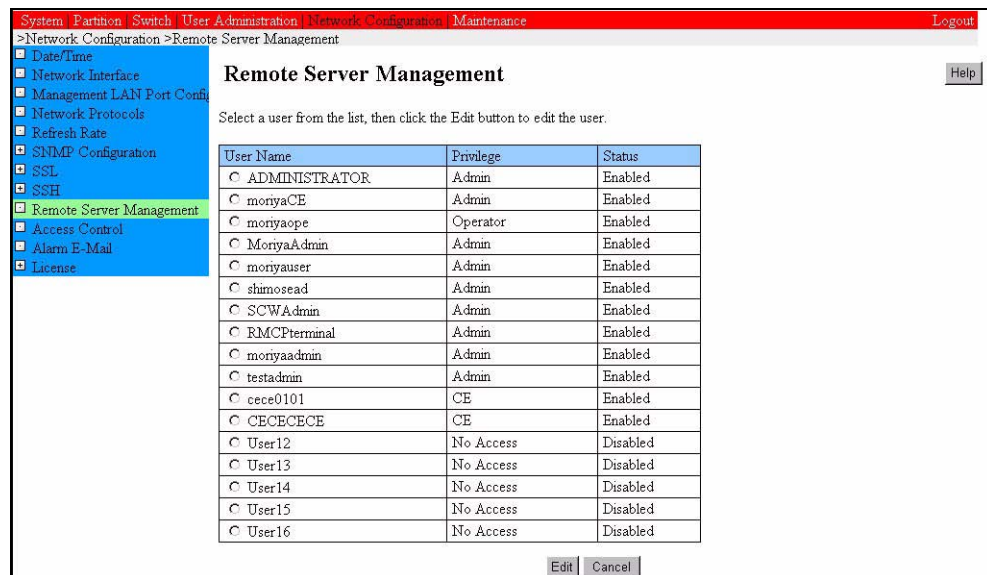


Figure 5.94 [Remote Server Management] window

Table 5.149 Displayed and setting items in the [Remote Server Management] window

Item	Description
User Name	User name. To specify user management information, click the radio button.
Privilege	User account privilege: <ul style="list-style-type: none">• Admin: Permission for all operations• Operator: Permission to view the system and configure system settings• User: Permission only to view the system• CE: Permission to view the system and conduct system maintenance• No Access: No permission for any operation
Status	Current account status: <ul style="list-style-type: none">• Enabled: Available• Disabled: Not available

Table 5.150 Buttons in the [Remote Server Management] window

Button	Description
Edit	Select a user name and click the [Edit] button to display the [Edit User] window.
Cancel	Click the [Cancel] button to revert to the original settings in management information.

(1) Menu operation

[Network Configuration] → [Remote Server Management]

(2) GUI operation

- 1 Select a user by clicking the radio button of the user, and click the [Edit] button.
The [Edit User] window is displayed.
- 2 Specify management information for the user in the [Edit User] window.

5.5.10.1 [Edit User] window

User management information can be changed in the [Edit User] window.

Figure 5.95 [Edit User] window

s

Table 5.151 Displayed and setting items in the [Edit User] window

Item	Description
User Name	Specify a user name. The user name must be from 8 to 16 characters long. The following types of characters can be used for a user name: En-sized alphabetic characters (uppercase and lowercase letters) and en-sized numeric characters
Password	Specify a password. The password must be from 8 to 16 characters long. The following types of characters can be used for a password: En-sized alphabetic characters (uppercase and lowercase letters) and en-sized numeric characters

Item	Description
Confirm Password	Enter the password again for confirmation.
Privilege	<p>Specify the user account privilege.</p> <p>One of the following must be selected:</p> <ul style="list-style-type: none">• Admin: Permission for all operations• Operator: Permission to view the system and configure system settings• User: Permission only to view the system• CE: Permission to view the system and conduct system maintenance• No Access: No permission for any operation <p>A user with [No Access] is not allowed to access remotely.</p>
Status	<p>Specify whether the account is available:</p> <ul style="list-style-type: none">• Enabled: Available• Disabled: Not available

Table 5.152 Buttons in the [Edit User] window

Button	Description
Apply	Specify a name, password, etc., as management information for the selected user, and click the [Apply] button to set this specified information.
Cancel	Click the [Cancel] button to revert to the original settings for the user name, password, etc.

(1) Menu operation

[Network Configuration] → [Remote Server Management] → [Edit] button

(2) GUI operation

- 1 Specify user management information such as a user name and a password, and click the [Apply] button.
The specified user management information is then set.

5.5.11 [Access Control] window

The [Access Control] window enables access control based on network protocols so that MMB security is maintained.

Up to 64 filters can be set for access control of PRIMEQUEST 580A/540A/580/540/480/440 and up to 16 filters can be set for access control of PRIMEQUEST 520A/520/420.

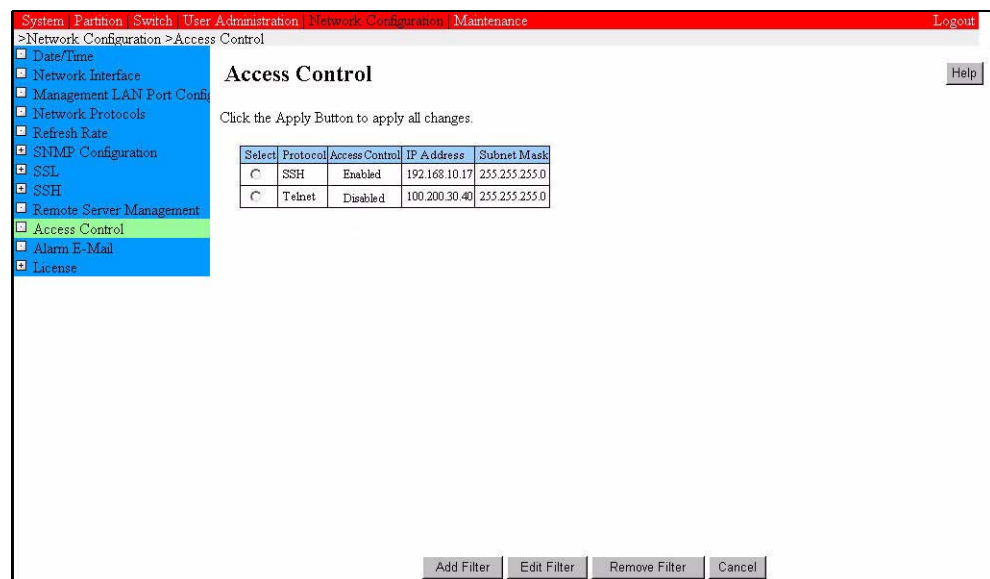


Figure 5.96 [Access Control] window

This window lists filters in alphabetic order by protocol name.

Table 5.153 Displayed and setting items in the [Access Control] window

Item	Description
Select	To edit or delete a filter, select the filter.
Protocol	Protocol subject to IP filtering: <ul style="list-style-type: none">• HTTP• HTTPS• Telnet• SSH• SNMP
Access Control	Specifies whether to permit or deny access.
IP Address	IP address that has access permission
Subnet Mask	Subnet mask of IP addresses that have access permission

Table 5.154 Buttons in the [Access Control] window

Button	Description
Add Filter	Click the [Add Filter] button. A new filter can be added in the [Add Filter] window that is displayed.
Edit Filter	Select a filter from the list of filters, and click the [Edit Filter] button. The selected filter can be edited in the [Edit Filter] window that is displayed.
Remove Filter	Select a filter from the list of filters, and click the [Remove Filter] button. The selected filter is removed.
Cancel	Click the [Cancel] button to not change information.

(1) Menu operation

[Network Configuration] → [Access Control]

(2) GUI operation

- Adding a new filter
 - 1 Click the [Add Filter] button.
The [Add Filter] window is displayed.
 - 2 Add a new filter in the [Add Filter] window.
- Editing a filter
 - 1 To edit a filter, select the filter by clicking its radio button, and click the [Edit Filter] button. The [Edit Filter] window is displayed.
 - 2 Edit the filter in the [Edit Filter] window.
- Removing a filter
 - 1 To remove a filter, select the filter by clicking its radio button, and click the [Remove Filter] button.
A confirmation dialog box opens for confirmation of removal.
 - 2 Click the [OK] button to remove the filter.
The filter is removed, and the [Access Control] window is displayed again.
 - 3 The list of filters in the [Access Control] window can be checked to confirm that the filter has been removed.

5.5.11.1 [Add Filter] window/[Edit Filter] window

Filters can be added and edited using the [Add Filter] and [Edit Filter] windows, respectively.

This section describes only the [Edit Filter] window, which can be used to edit a filter, and does not describe the [Add Filter] window, which can be used to add a filter. Except for the different window titles, these windows have the same window format and operating methods.

Note: When setting a proxy with the Web browser from your computer or workstation, set the IP address taking into consideration the proxy setting.

System Partition Switch User Administration Network Configuration Maintenance Logout
>Network Configuration>Access Control

Edit Filter Help

Click the Apply Button for all changes to take effect.

Protocol	SSH			
Access Control	<input checked="" type="radio"/> Enable <input type="radio"/> Disable			
IP Address	192	168	10	17
Subnet Mask	255	255	255	0

Apply Cancel

Figure 5.97 [Edit Filter] window

Table 5.155 Displayed and setting items in the [Edit Filter] window

Item	Description
Protocol	Select the target protocol for IP filtering from the pulldown list: <ul style="list-style-type: none"> • HTTP • HTTPS • Telnet • SSH • SNMP
Access Control	Select the [Enable] or [Disable] radio button to specify whether to use access control. Selecting [Disable] permits access from any IP address using the protocol selected above. Furthermore, the [IP Address] and [Subnet Mask] fields described below are grayed out, and input to them is not possible. Selecting [Enable] enables input in the [IP Address] and [Subnet Mask] fields and permits access from the specified IP address using the protocol selected in [Protocol].
IP Address	Enter an IP address that has access permission.
Subnet Mask	Enter the subnet mask of IP addresses that have access permission.

Table 5.156 Buttons in the [Edit Filter] window

Button	Description
Apply	After completing the [Protocol], [Access Control], and/or other settings, click the [Apply] button. The specified information takes effect on the system.
Cancel	Click the [Cancel] button to revert to the original settings for the protocol and access control.

(1) Menu operation

[Network Configuration] → [Access Control] → [Add Filter] button/[Edit Filter] button

(2) GUI operation

- 1 Make [Protocol], [Access Control], and/or other settings, enter an IP address and a subnet mask, and then click the [Apply] button.
Additions or changes are then made to management information accordingly.

5.5.12 [Alarm E-Mail] window

E-mail notification of events that occur in the PRIMEQUEST-series machine can be specified in the [Alarm E-Mail] window.

Figure 5.98 [Alarm E-Mail] window

Table 5.157 Displayed and setting items in the [Alarm E-Mail] window

Item	Description
Alarm E-Mail	Specify whether alarm e-mail is sent for an event that occurs: <ul style="list-style-type: none">• Enable: Sends e-mail• Disable: Does not send e-mail
From:	Specify the e-mail address that sends the e-mail.
To:	Specify the e-mail address that receives the e-mail.
SMTP Server	Specify the IP address or FQDN of an SMTP server. The FQDN can be specified only if a DNS is set up.
Subject	Specify a subject line for the e-mail.

Table 5.158 Buttons in the [Alarm E-Mail] window

Button	Description
Apply	Specify whether alarm e-mail is sent, the e-mail address of the sender, etc., and click the [Apply] button to set the specified values.
Cancel	Click the [Cancel] button to revert to the original settings for whether alarm e-mail is sent, the e-mail address of the sender, etc.

Button	Description
Filter	Click the [Filter] button to display the [Alarm E-Mail Filtering Condition] window, which can be used to specify filtering conditions on the events that require sending of alarm e-mail.
Test E-Mail	Click the [Test E-Mail] button to send test alarm e-mail to the specified destination.

(1) Menu operation

[Network Configuration] → [Alarm E-Mail]

(2) GUI operation

- 1 Specify whether alarm e-mail is sent, the e-mail address of the sender, etc.
- 2 Click the [Filter] button to specify filtering conditions on the events that require sending of alarm e-mail.
The [Alarm E-Mail Filtering Condition] window is displayed.
- 3 Specify filtering conditions in the [Alarm E-Mail Filtering Condition] window (see [Section 5.5.12.1, "\[Alarm E-Mail Filtering Condition\] window \(PRIMEQUEST 580A/540A/580/540/480/440\)"](#) or [Section 5.5.12.2, "\[Alarm E-Mail Filtering Condition\] window \(PRIMEQUEST 520A/520/420\)"](#)).
- 4 Click the [Test E-Mail] button to send test alarm e-mail.
Test alarm e-mail is sent to the specified destination.
- 5 Click the [Apply] button.
The specified values in this window are then set.

Note: For specifying FQDN, the DNS server must be specified. The DNS server can be specified in [Network Configuration] → [Network Interface].

5.5.12.1 [Alarm E-Mail Filtering Condition] window (PRIMEQUEST 580A/540A/580/540/480/440)

The [Alarm E-Mail Filtering Condition] window allows you to specify filtering conditions for events that trigger the transmission of alarm E-Mail messages.

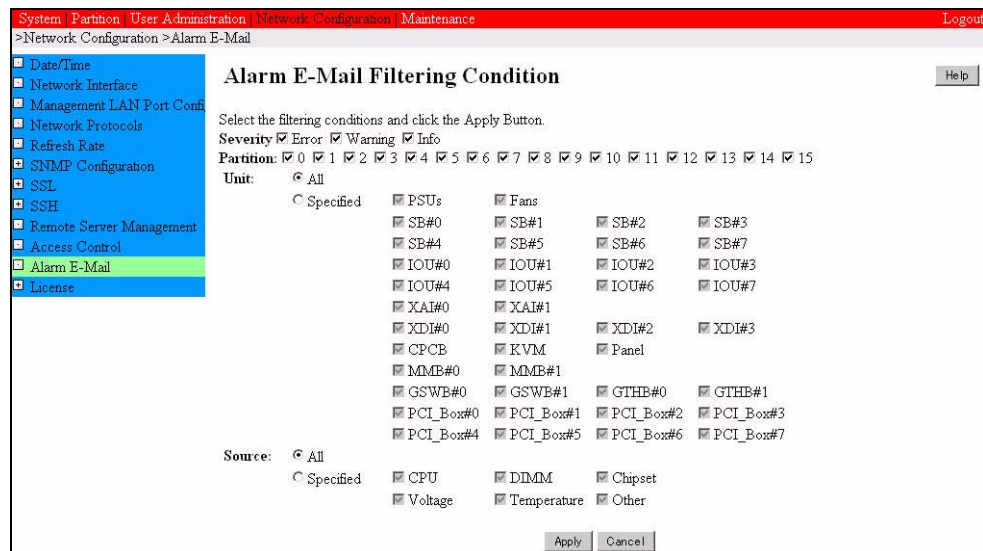


Figure 5.99 [Alarm E-Mail Filtering Condition] window (PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.159 Displayed and setting items in the [Alarm E-Mail Filtering Condition] window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Severity	<p>Select the severity of events for event filtering by checking the corresponding check box.</p> <p>More than one severity options can be selected.</p> <ul style="list-style-type: none"> • Error: Serious problem such as a hardware failure • Warning: Event that is not serious now but will possibly develop into a problem • Info: Normal event such as partition power-on <p>By default, all of the options are selected.</p>
Partition	<p>Select a partition for event filtering by checking its check box.</p> <p>More than one partition can be selected.</p> <p>By default, all partitions are selected.</p>

Item	Description
Unit	Select a target unit for event filtering. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables event filtering based on units. Selecting [Specified] enables event filtering based on units and checking of check boxes, so a unit can be selected for event filtering. The default setting is [All].
Source	Select a target source for event filtering. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables event filtering based on sources. Selecting [Specified] enables event filtering based on sources and checking of check boxes, so a source can be selected for event filtering. The default setting is [All].

Table 5.160 Buttons in the [Alarm E-Mail Filtering Condition] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Apply	Specify values in [Severity], [Partition], [Unit], etc., and click the [Apply] button to set the specified filtering conditions.
Cancel	Click the [Cancel] button to revert to the original settings in filtering conditions such as [Severity], [Partition], and [Unit].

(1) Menu operation

[Network Configuration] → [Alarm E-Mail] → [Filter] button

(2) GUI operation

- 1 Specify values in [Severity], [Partition], [Unit], etc., and click the [Apply] button.
The specified filtering conditions are then set.

5.5.12.2 [Alarm E-Mail Filtering Condition] window (PRIMEQUEST 520A/520/420)

The [Alarm E-Mail Filtering Condition] window allows you to specify filtering conditions for events that trigger the transmission of alarm E-Mail messages.

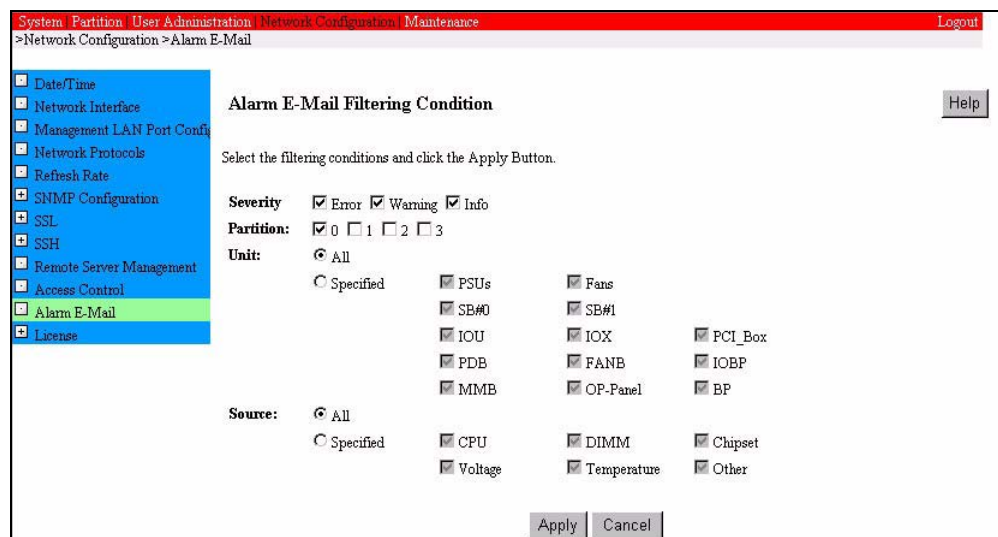


Figure 5.100 [Alarm E-Mail Filtering Condition] window (PRIMEQUEST 520A/520/420)

Table 5.161 Displayed and setting items in the [Alarm E-Mail Filtering Condition] window (PRIMEQUEST 520A/520/420)

Item	Description
Severity	Select the severity of events for event filtering by checking the corresponding check box. More than one severity options can be selected. <ul style="list-style-type: none">• Error: Serious problem such as a hardware failure• Warning: Event that is not serious now but will possibly develop into a problem• Info: Normal event such as partition power-on By default, all of the options are selected.
Partition	Select a partition for event filtering by checking its check box. More than one partition can be selected. By default, all partitions are selected.

Item	Description
Unit	Select a target unit for event filtering. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables event filtering based on units. Selecting [Specified] enables event filtering based on units and checking of check boxes, so a unit can be selected for event filtering. The default setting is [All].
Source	Select a target source for event filtering. Select either [All] or [Specified] by clicking its radio button. Selecting [All] disables event filtering based on sources. Selecting [Specified] enables event filtering based on sources and checking of check boxes, so a source can be selected for event filtering. The default setting is [All].

Table 5.162 Buttons in the [Alarm E-Mail Filtering Condition] window
(PRIMEQUEST 520A/520/420)

Button	Description
Apply	Specify values in [Severity], [Partition], [Unit], etc., and click the [Apply] button to set the specified filtering conditions.
Cancel	Click the [Cancel] button to revert to the original settings in filtering conditions such as [Severity], [Partition], and [Unit].

(1) Menu operation

[Network Configuration] → [Alarm E-Mail] → [Filter] button

(2) GUI operation

- 1 Specify values in [Severity], [Partition], [Unit], etc., and click the [Apply] button.
The specified filtering conditions are then set.

5.5.13 [License] menu

The [License] menu provides the following windows:

- [Mirror License]
- [XPAR License]
- [32CPU License]

5.5.13.1 [Mirror License] window

A license required for enabling System Mirror mode can be registered in the [Mirror License] window.

To register a license, a system mirror option must be procured.

Remarks: Before registering a license from this window, insert the CD-ROM supplied with the system mirror option into the CD-ROM drive of the PC of the MMB console.

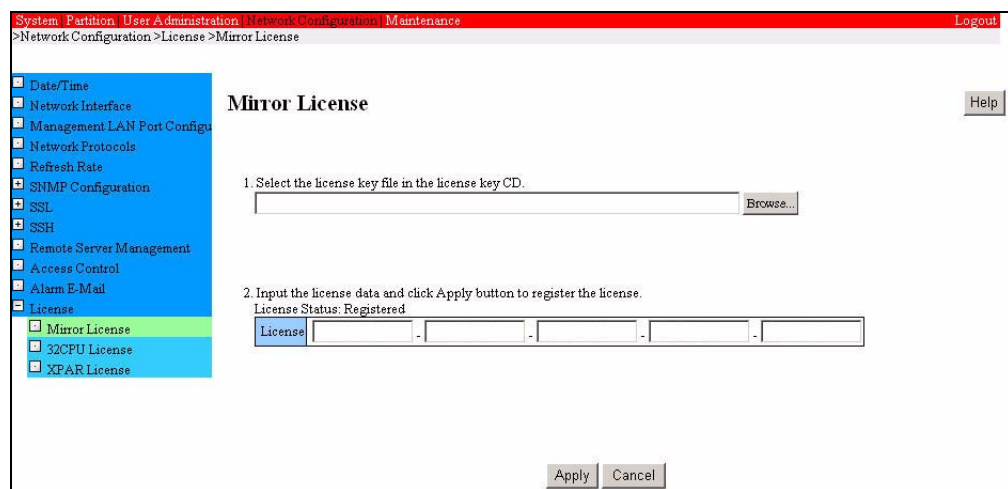


Figure 5.101 [Mirror License] window

Table 5.163 Displayed and setting items in the [Mirror License] window

Item	Description
Select the license key file in the license key CD	This field is used to select the license key file to enable the license.
License Status	This field displays the current license status. <ul style="list-style-type: none">• Not registered: The license has not been registered. Alternatively, the license data (entered) for registration is not appropriate.• Registered: The license is correctly registered.
License	This field is used to enter license data.

Table 5.164 Buttons in the [Mirror License] window

Button	Description
Browse	Opens a file selection dialog box.
Apply	Enter license data with the license key file selected, and click the [Apply] button to transfer the file and register the license information.
Cancel	Cancels the license settings made in this window.

(1) Menu operation

[Network Configuration] → [License] → [Mirror License]

(2) GUI operation

- 1 Insert the CD-ROM disk supplied with the system mirror option into the CD-ROM drive of the MMB console.
- 2 Click the [Browse] button, and select the license key file in the file selection window.
- 3 Enter the license data that is on the sheet supplied with the system mirror option into the [License] boxes, and click the [Apply] button.
Each partition then becomes ready to support Extended Mirror Mode.

5.5.13.2 [XPAR License] window

The [XPAR License] window is used to register a license for operation with split SBs, IO Units, and an IOX in partitions.

Before registering the license, procure the XPAR option.

Remarks: Before registering the license in this window, insert the CD-ROM disk supplied with the XPAR option into the CD-ROM drive of the PC for the MMB console.

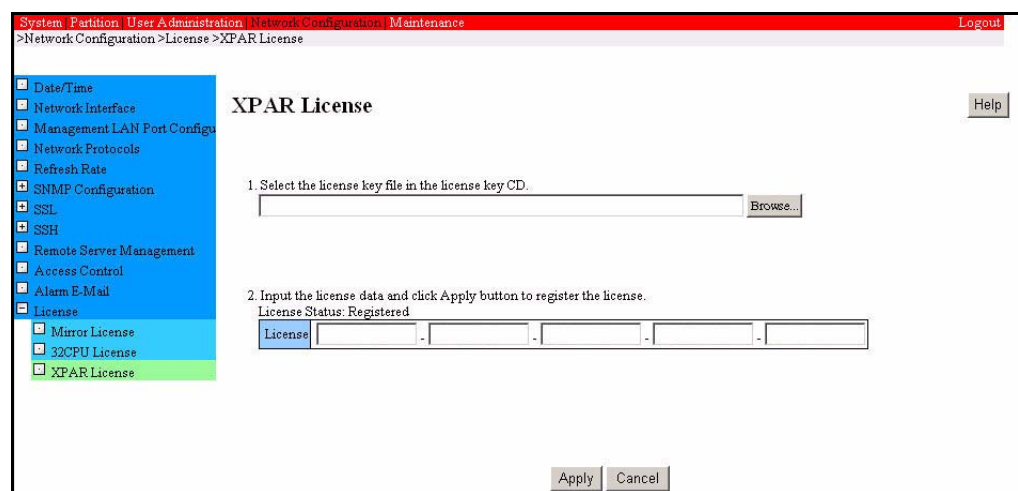


Figure 5.102 [XPAR License] window

Table 5.165 Displayed and setting items in the [XPAR License] window

Item	Description
Select the license key file in the license key CD	This field is used to select the license key file to enable the license.
License Status	This field displays the current license status. <ul style="list-style-type: none"> Not registered: The license has not been registered. Alternatively, the license data (entered) for registration is not appropriate. Registered: The license is correctly registered.
License	This field is used to enter license data.

Table 5.166 Buttons in the [XPAR License] window

Button	Description
Browse	Opens a file selection dialog box.
Apply	Enter license data with the license key file selected, and click the [Apply] button to transfer the file and register the license information.
Cancel	Cancels the license settings made in this window.

(1) Menu operation

[Network Configuration] → [License] → [XPAR License]

(2) GUI operation

- 1 Insert the CD-ROM disk supplied with the XPAR option into the CD-ROM drive of the MMB console.
- 2 Click the [Browse] button, and select the license key file in the file selection window.
- 3 Enter the license data that is on the sheet supplied with the XPAR option into the [License] boxes, and click the [Apply] button.
SBs, IO Units, and an IOX then become ready to be split.

5.5.13.3 [32CPU License] window (PRIMEQUEST 580A/540A/580/540/480/440)

A license for enabling the function that makes the system operate as a 32-CPU device can be registered from the [32CPU License] window.

To register license data, a device upgrade kit must be procured.

Remarks: Before registering license data from this window, insert the CD-ROM supplied with the device upgrade kit into the CD-ROM drive of the PC of the MMB console.

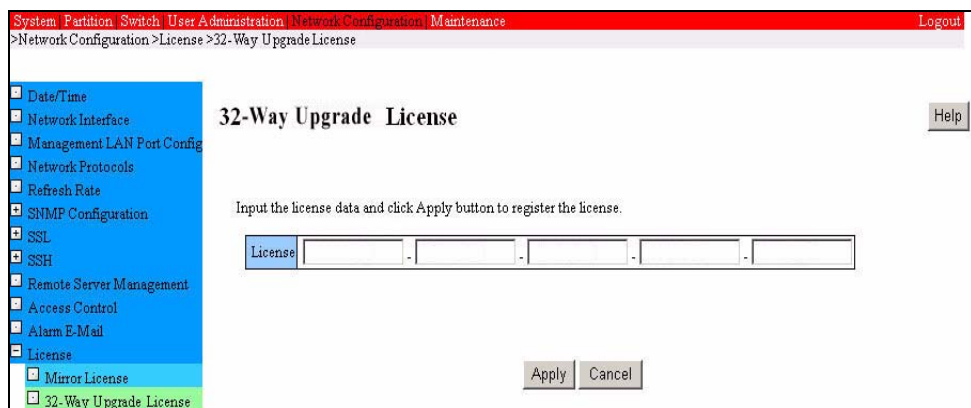


Figure 5.103 [32CPU License] window

Table 5.167 Displayed and setting items in the [32CPU License] window

Item	Description
Select the license key file in the license key CD	This field is used to select the license key file to enable the license.
License Status	This field displays the current license status. <ul style="list-style-type: none"> Not registered: The license has not been registered. Alternatively, the license data (entered) for registration is not appropriate. Registered: The license is correctly registered.
License	This field is used to enter license data.

Table 5.168 Buttons in the [32CPU License] window

Button	Description
Browse	Opens a file selection dialog box.
Apply	Enter license data with the license key file selected, and click the [Apply] button to transfer the file and register the license information.
Cancel	Cancels the license settings made in this window.

(1) Menu operation

[Network Configuration] → [License] → [32CPU License]

(2) GUI operation

- 1 Insert the CD-ROM disk supplied with the system mirror option into the CD-ROM drive of the MMB console.
- 2 Click the [Browse] button, and select the license key file in the file selection window.
- 3 Find the license data on the sheet supplied with the device upgrade kit, enter it into the [License] boxes, and click the [Apply] button. The device can then be used as a 32-CPU device.

5.5.13.4 [32way-Upgrade License] window (PRIMEQUEST 480/440)

A license for enabling the function that makes the system operate as a 32-CPU device can be registered in the [32way-Upgrade License] window.

To register a license, a device upgrade kit must be procured.

Remarks:

- The device upgrade kit and this window are not supported for use in Japan.
- Before registering license data from this window, insert the CD-ROM disk supplied with the device upgrade kit into the CD-ROM drive of the PC of the MMB console.



Figure 5.104 [32way-Upgrade License] window

Table 5.169 Displayed and setting items in the [32way-Upgrade License] window

Item	Description
Select the license key file in the license key CD	This field is used to select the license key file to enable the license.
License Status	This field displays the current license status. <ul style="list-style-type: none">• Not registered: The license has not been registered. Alternatively, the license data (entered) for registration is not appropriate.• Registered: The license is correctly registered.
License	This field is used to enter license data.

Table 5.170 Buttons in the [32way-Upgrade License] window

Button	Description
Browse	Opens a file selection dialog box.
Apply	Enter license data with the license key file selected, and click the [Apply] button to transfer the file and register the license information.
Cancel	Cancels the license settings made in this window.

(1) Menu operation

[Network Configuration] → [License] → [32way Upgrade License]

(2) GUI operation

- 1 Insert the CD-ROM disk supplied with the system mirror option into the CD-ROM drive of the MMB console.
- 2 Click the [Browse] button, and select the license key file in the file selection window.
- 3 Find the license data on the sheet supplied with the device upgrade kit, enter it into the [License] boxes, and click the [Apply] button. The device can then be used as a 32-CPU device.

5.6 Maintenance Menu

Maintenance on the PRIMEQUEST-series machine can be conducted from the [Maintenance] menu.

5.6.1 Firmware Update menu

The [Firmware Update] menu provides the following windows:

- [MMB Firmware Update]
- [GSWB Firmware Update]
- [PAL/SAL Firmware Update]
- [EFI Firmware Update]
- [BMC Firmware Update]

The following description covers these windows and operations on them. However, certified service engineers are responsible for updating firmware.

5.6.1.1 [MMB Firmware Update] window (PRIMEQUEST 580A/540A/580/540/480/440)

MMB firmware can be updated in the [MMB Firmware Update] window.

Remarks: If the MMB is duplicated, Fujitsu recommends updating the firmware on the standby MMB first, switching the standby and active MMBs after the updating is completed, and then updating the firmware on the second MMB. This process is intended to prevent any interruption in system monitoring.

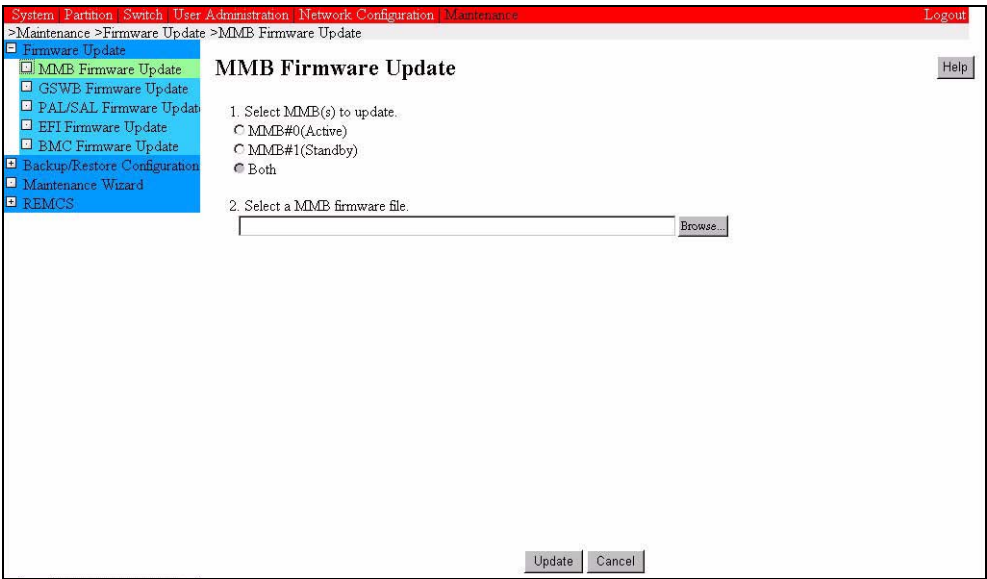


Figure 5.105 [MMB Firmware Update] window (selection)
(PRIMEQUEST 580A/540A/580/540/480/440)

Table 5.171 Displayed and setting items in the [MMB Firmware Update]
window (PRIMEQUEST 580A/540A/580/540/480/440)

Item	Description
Select MMB(s) to update.	Select MMBs for an update: <ul style="list-style-type: none">• MMB#0• MMB#1• Both Remarks: MMB#x is followed by the MMB operation status (Active) or (Standby).
Select a MMB firmware file.	Select an update file containing MMB firmware.

Table 5.172 Buttons in the [MMB Firmware Update] window
(PRIMEQUEST 580A/540A/580/540/480/440)

Button	Description
Browse	Opens a file selection dialog box.
Update	Opens a confirmation dialog box displaying current firmware version information and update firmware version information.
Cancel	Cancels the settings made in this window.

(1) Menu operation

[Maintenance] → [Firmware Update] → [MMB Firmware Update]

(2) GUI operation

- Procedure

- 1 Select an MMB for an update by clicking its radio button in [Select MMB(s) to update] in the [MMB Firmware Update] window .
- 2 Using the [Browse] button or [Select a firmware file] in the [MMB Firmware Update] window, select an update file containing MMB firmware, and click the [Update] button.

A confirmation dialog box opens with current firmware version information and update firmware version information displayed.

If the specified file does not contain MMB firmware, a warning dialog box opens with an error message displayed. Then, a consistency check is performed to check whether the version of MMB firmware in the specified file matches that in other firmware files. If the versions do not match, a confirmation dialog box opens to indicate that they do not match and ask whether to continue or cancel processing.

- 3 Click [OK] in the confirmation dialog box to continue the update.
The MMB firmware is updated.

Remarks: During an update with [MMB#x (Active)] or [Both] selected for [Select MMB(s) to update], the following message appears at the end of update processing:

- The reboot is done. Login after a while.

To display the Web-UI, wait about 10 minutes after the message appeared, then log in to the Web-UI.

- Checking after an update

- If the [(Active)] MMB or [Both] was selected in [Select MMB(s) to update] in the [MMB Firmware Update] window

To update the firmware, reboot the MMB, and connect to the MMB again after the reboot. After establishing a connection to the MMB again, display the [MMB#x] window from the [System] menu, and check the MMB firmware version in this window to confirm the update.

If the firmware was not updated, the error status can be checked in the [System Event Log] window displayed from the [System] menu.

- If the [(Standby)] MMB and not the [(Active)] MMB was selected in [Select MMB(s) to update] in the [MMB Firmware Update] window

The firmware update completion window for the (Standby) MMB, not the (Active) MMB, is displayed. Confirm the completion of the firmware update in this window.

5.6.1.2 [MMB Firmware Update] window (PRIMEQUEST 520A/520/420)

MMB firmware can be updated in the [MMB Firmware Update] window.

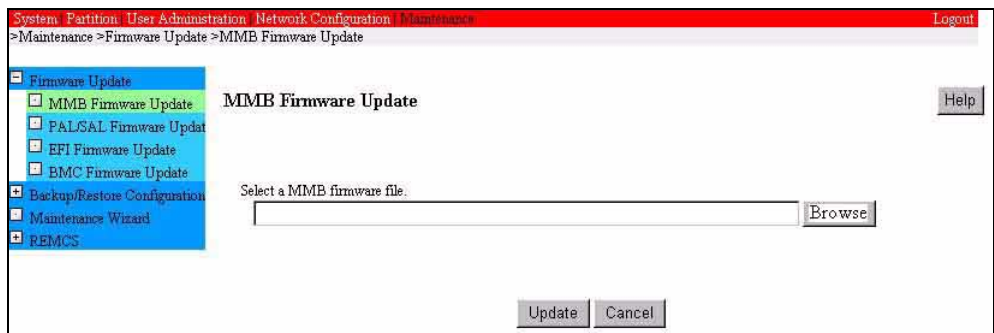


Figure 5.106 [MMB Firmware Update] window (selection)
(PRIMEQUEST 520A/520/420)

Table 5.173 Displayed and setting items in the [MMB Firmware Update]
window (PRIMEQUEST 520A/520/420)

Item	Description
Select a MMB firmware file.	Select an update file containing MMB firmware.

Table 5.174 Buttons in the [MMB Firmware Update] window
(PRIMEQUEST 520A/520/420)

Button	Description
Browse	Displays update files containing MMB firmware.
Update	Opens a confirmation dialog box displaying current firmware version information and update firmware version information.
Cancel	Cancels the settings made in this window.

(1) Menu operation

[Maintenance] → [Firmware Update] → [MMB Firmware Update]

(2) GUI operation

- Procedure

- 1 Using the [Browse] button or [Select a firmware file] in the [MMB Firmware Update] window, select an update file containing MMB firmware, and click the [Update] button.

A confirmation dialog box opens with current firmware version information and update firmware version information displayed.

If the specified file does not contain MMB firmware, a warning dialog box opens with an error message displayed. Then, a consistency check is performed to check whether the version of MMB firmware in the specified file matches that in other firmware files. If the versions do not match, a confirmation dialog box opens to indicate that they do not match and ask whether to continue or cancel processing.

- 2 Click [OK] in the confirmation dialog box to continue the update.
The MMB firmware is updated.

- Checking after an update

- To update the firmware, reboot the MMB, and connect to the MMB again after the reboot. After establishing a connection to the MMB again, display the [MMB] window from the [System] menu, and check the MMB firmware version in this window to confirm the update.

If the firmware was not updated, the error status can be checked in the [System Event Log] window displayed from the [System] menu.

5.6.1.3 [GSWB Firmware Update] window (PRIMEQUEST 580A/540A/580/540/480/440)

GSWB firmware can be updated in the [GSWB Firmware Update] window.

Additional note: Upload processing does not overwrite firmware on the active GSWB but it does so on the other GSWB.

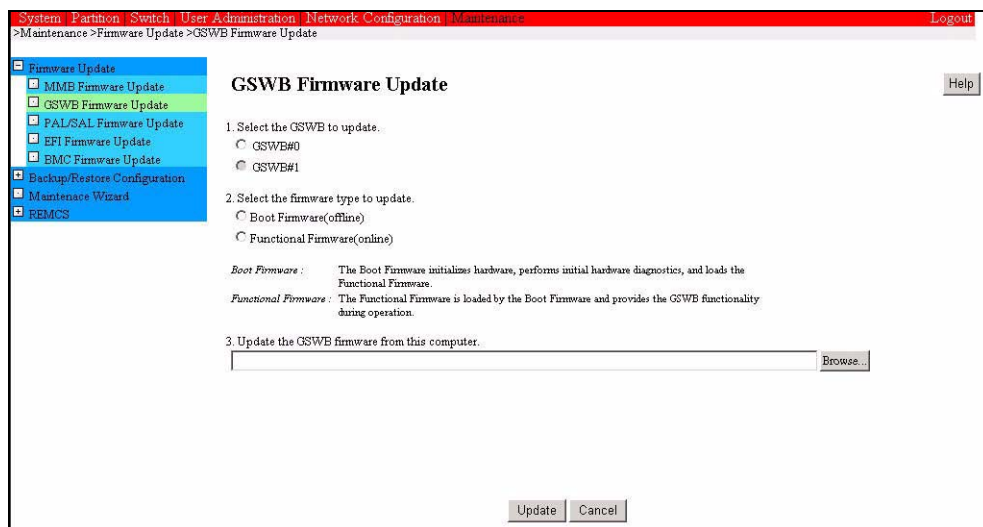


Figure 5.107 [GSWB Firmware Update] window

Table 5.175 Displayed and setting items in the [GSWB Firmware Update] window

Item	Description
Select the firmware to update in which.	<ul style="list-style-type: none"> GSWB#0: Specify GSWB#0. GSWB#1: Specify GSWB#1.
Select the firmware type to update.	<ul style="list-style-type: none"> Boot Firmware (offline): Specify the offline firmware. Functional Firmware (Online): Specify the online firmware.
Update GSWB Firmware from your computer.	Specify the firmware path.

Table 5.176 Buttons in the [GSWB Firmware Update] window

Button	Description
Browse	Opens a file selection dialog box.
Update	Uploads and installs GSWB firmware.
Cancel	Cancels the settings made in this window.

(1) Menu operation

[Maintenance] → [Firmware Update] → [GSWB Firmware Update]

(2) GUI operation

- 1 Select the GSWB the firmware of which you want to update.
- 2 Select the type of the firmware to be updated from Boot Firmware (Offline) and Functional Firmware (Online).
- 3 Click the [Browse] button to display a list of selections, select the update GSWB firmware, and click the [Update] button. Click the [OK] button in the confirmation window.

The firmware is uploaded, and installation starts. When firmware installation is completed, a confirmation dialog box opens for confirmation to restart the system.

If selected file from the displayed list is not a GSWB firmware file, a warning dialog box opens with an error message displayed.

- 4 Click [OK] in the confirmation dialog box to restart the system using the installed firmware.

The system is restarted using the installed GSWB firmware.

If you click the [Cancel] button, the system will not restart.

5.6.1.4 [PAL/SAL Firmware Update] window

The PAL/SAL firmware stored on an SB can be updated in the [PAL/SAL Firmware Update] window. To actually update the firmware in a partition, the partition must be rebooted.

Note:

- The partition containing the PAL/SAL firmware to be updated must be powered off in advance of this update work.
- If an update results in a mixture of PAL/SAL firmware products of different versions in a partition, all the PAL/SAL firmware products are automatically restored at partition startup to the versions used before the update. If the partition is being started for the first time, or if the mixture does not include PAL/SAL firmware that was running before the update, the relevant PAL/SAL firmware is replaced with the version of PAL/SAL firmware on the SB that has the smallest SB number in the partition.
- On an SB, to update individually the PAL/SAL firmware products stored on side A and side B that are in different partitions, both of these partitions containing side A and side B must be powered off in advance of the update.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

The screenshot shows the 'PAL/SAL Firmware Update' window. On the left is a sidebar with a tree view containing: Firmware Update (expanded), MMB Firmware Update, GSWB Firmware Update, PAL/SAL Firmware Update (highlighted), EFI Firmware Update, BMC Firmware Update, Backup/Restore Configuration, Maintenance Wizard, and REMCS. The main area has a title bar with 'System', 'Partition', 'Switch', 'User Administration', 'Network Configuration', and 'Maintenance'. Below the title bar is a breadcrumb: '>Maintenance >Firmware Update >PAL/SAL Firmware Update'. The main content area is titled 'PAL/SAL Firmware Update' and contains two sections:

1. Select SB(s) to update:

☐ all

☐ specified unit(s)

SB#	0	1	2	3	4	5	6	7
	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A	<input type="checkbox"/> A
	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B	<input type="checkbox"/> B

☐ specified partition(s)

Partition#	0	1	2	3	4	5	6	7
	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7
	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15

2. Select a PAL/SAL firmware file.

At the bottom right are 'Update' and 'Cancel' buttons.

Figure 5.108 [PAL/SAL Firmware Update] window (selection)

Uninstalled devices and partitions that have not been configured are grayed out and cannot be selected.

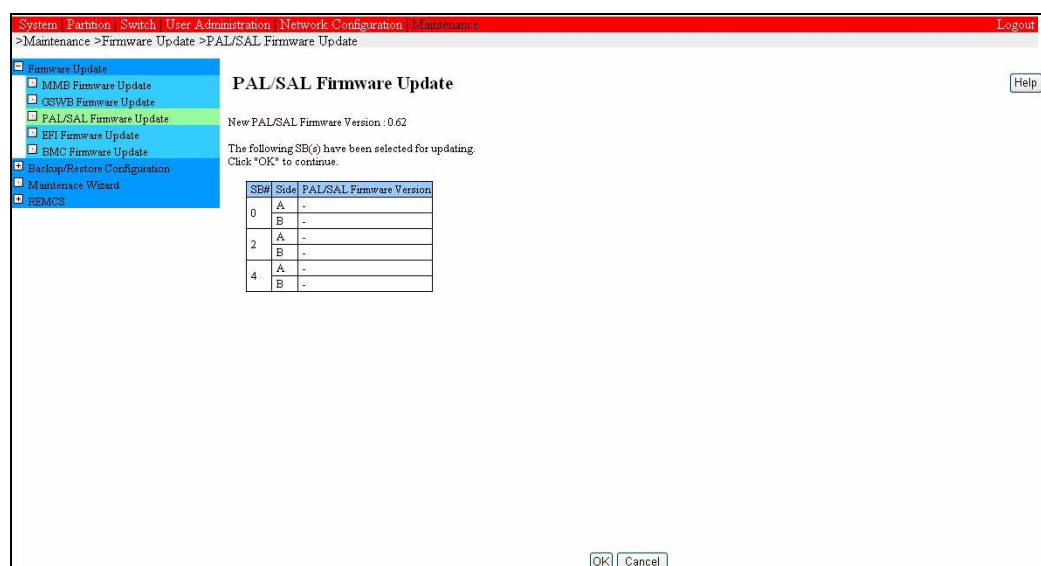


Figure 5.109 [PAL/SAL Firmware Update] window (when All or an SB is specified)

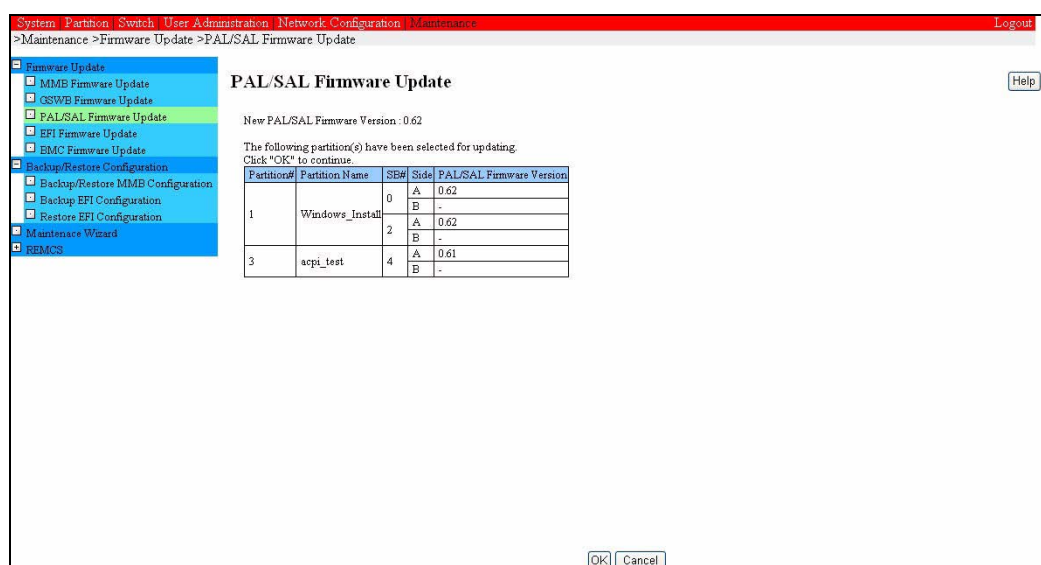


Figure 5.110 [PAL/SAL Firmware Update] window (when a partition is specified)

Table 5.177 Displayed and setting items in the [PAL/SAL Firmware Update] window (selection)

Item	Description
Select SB(s) to update	<p>Select the units that store PAL/SAL firmware by clicking radio buttons as follows:</p> <ul style="list-style-type: none"> • all: Used to select all SBs installed in the system. • specified unit(s): Used to select either the A or B sides of individual SBs. • specified partition(s): Used to select partitions. <p>Only the check boxes of units next to a clicked radio button can be checked. Other check boxes are grayed out, and input for them is not possible.</p>
Select a PAL/SAL firmware file	Specify an update file containing PAL/SAL firmware.

Table 5.178 Displayed items in the [PAL/SAL Firmware Update] window (when All or an SB is specified)

Item	Description
New PAL/SAL Firmware Version	Update firmware version information
SB#	SB number
Side	A or B side of a split SB
PAL/SAL Firmware Version	Current firmware version information

Table 5.179 Displayed items in the [PAL/SAL Firmware Update] window (when a partition is specified)

Item	Description
New PAL/SAL Firmware Version	Update firmware version information
Partition#	Partition number
Partition Name	Partition name
PAL/SAL Firmware Version	Current firmware version information

Table 5.180 Buttons in the [PAL/SAL Firmware Update] window

Button	Description
Browse	Opens a file selection dialog box.
Upload	Opens a confirmation dialog box displaying current firmware version information and version information on the firmware to be uploaded.
Cancel	Cancels the settings made in this window.

(1) Menu operation

- [PAL/SAL Firmware Update] window (selection)
[Maintenance] → [Firmware Update] → [PAL/SAL Firmware Update]
- [PAL/SAL Firmware Update] window (when All or an SB is specified)
Select [Maintenance] → [Firmware Update] → [PAL/SAL Firmware Update], select [All] or [SB], specify the target PAL/SAL firmware file, and click the [Update] button.
- [PAL/SAL Firmware Update] window (when a partition is specified)
Select [Maintenance] → [Firmware Update] → [PAL/SAL Firmware Update] → [Partition], specify the target PAL/SAL firmware file, and click the [Update] button.

(2) GUI operation

- 1 Select the units that store the PAL/SAL firmware to be updated in [Select SB(s) to update].
- 2 Click the [Browse] button, specify an update file containing PAL/SAL firmware, and click the [Update] button.
The partition containing the PAL/SAL firmware to be updated must be powered off in advance of this update work.
If the specified file does not contain PAL/SAL firmware, a warning dialog box opens with an error message displayed. Then, a consistency check is performed to check whether the version of PAL/SAL firmware in the specified file matches that of other firmware files. If the versions do not match, a confirmation/warning dialog box opens for confirmation to continue processing.
- 3 Click the [OK] button in the confirmation dialog box to continue the update.
Another confirmation dialog box opens with current firmware version information and update firmware version information displayed.
 - If [all] or [specified unit(s)] was specified in [Select SB(s) to update], the [PAL/SAL Firmware Upload] window (when All or an SB is specified) is displayed.
 - If [specified partition(s)] was specified in [Select SB(s) to update], the [PAL/SAL Firmware Upload] window (when a partition is specified) is displayed.

- 4 Click the [OK] button in the [PAL/SAL Firmware Upload] window (when All or an SB is specified) or [PAL/SAL Firmware Upload] window (when a partition is specified) to continue the update.

To indicate the completion of the update, a confirmation dialog box opens when the update ends normally.

- 5 Reboot the partition.
The partition is rebooted by post-update firmware.

5.6.1.5 [EFI Firmware Update] window

EFI firmware stored on the BMM board can be updated in the [EFI Firmware Update] window.

Note:

- The partition containing the EFI firmware to be updated must be powered off in advance of this update work.

Remarks: The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.

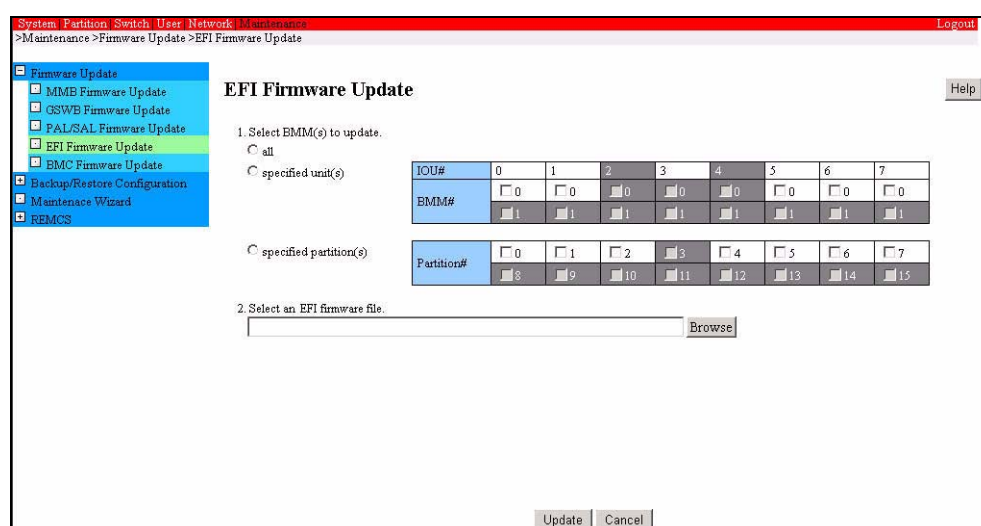


Figure 5.111 [EFI Firmware Update] window

Uninstalled devices and partitions that have not been configured are grayed out and cannot be selected.

Table 5.181 Displayed and setting items in the [EFI Firmware Update] window

Item	Description
Select BMM(s) to update	Select the BMM units that store EFI firmware by clicking a radio button as follows: <ul style="list-style-type: none">• all: Used to select all BMMs installed in the system.• specified unit(s): Used to select either BMM board.• specified partition(s): Used to select a partition. Only the check boxes of units next to a clicked radio button can be selected. Other check boxes are grayed out, and input for them is not possible.
Select an EFI firmware file	Specify an update file containing EFI firmware.

Table 5.182 Buttons in the [EFI Firmware Update] window

Button	Description
Browse	Opens a file selection dialog box.
Update	Opens a confirmation dialog box displaying current firmware version information and update firmware version information.
Cancel	Cancels the settings made in this window.

(1) Menu operation

[Maintenance] → [Firmware Update] → [EFI Firmware Update]

(2) GUI operation

- 1 Select the BMM units that store the EFI firmware to be updated in [Select BMM(s) to update].
- 2 Click the [Browse] button, specify an update file containing EFI firmware, and click the [Update] button.

The partition containing the EFI firmware to be updated must be powered off in advance of this update work.

If the specified file does not contain EFI firmware, a warning dialog box opens with an error message displayed. Then, a consistency check is performed to check whether the version of EFI firmware in the specified file matches that of other firmware files. If the versions do not match, a dialog box opens to indicate that they do not match and ask whether to continue or cancel processing.

- 3 Click the [OK] button in the confirmation dialog box to continue the update.
Another confirmation dialog box opens with current firmware version information and update firmware version information displayed.
- 4 Click the [OK] button in the confirmation dialog box to continue the update.
To indicate the completion of the update, a confirmation dialog box opens when the update ends normally.

5.6.1.6 [BMC Firmware Update] window

BMC firmware can be updated in the [BMC Firmware Update] window.

Remarks:

- The PRIMEQUEST 580A/540A/580/540/480/440 windows shown below are examples used for explanations.
- When the BMC is updated, the BMC reboots itself, causing a temporary interruption in service. To prevent possible problems, Fujitsu recommends that partitions linked to the BMC to be updated be shut down before the update.

The screenshot shows the 'BMC Firmware Update' window. On the left is a sidebar with a tree view containing 'Firmware Update' (expanded), 'Backup/Restore Configuration', 'Maintenance Wizard', and 'REMCS'. Under 'Firmware Update', there are checkboxes for 'MMB Firmware Update', 'GSWB Firmware Update', 'PAL/SAL Firmware Update', 'EFI Firmware Update', and 'BMC Firmware Update'. The main area has a title bar 'BMC Firmware Update' with a 'Help' button. Below the title bar, it says '1. Select BMM(s) to update.' with two radio buttons: 'all' and 'specified unit(s)'. To the right of these is a table for selecting units. The table has two rows: 'IOU#' and 'BMM#'. The 'IOU#' row has columns 0 through 7. The 'BMM#' row has columns 0 through 7. Below this is another radio button 'specified partition(s)' and a table for selecting partitions. The table has two rows: 'Partition#' and a row of partition numbers 0 through 15. Below the partition table is a text field for '2. Select a BMC firmware file' with a 'Browse' button. At the bottom are 'Update' and 'Cancel' buttons.

IOU#	0	1	2	3	4	5	6	7
BMM#	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0	<input type="checkbox"/> 0
	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1

Partition#	0	1	2	3	4	5	6	7
	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15

Figure 5.112 [BMC Firmware Update] window

Uninstalled devices and partitions that have not been configured are grayed out and cannot be selected.

Table 5.183 Displayed and setting items in the [BMC Firmware Update] window

Item	Description
Select BMM(s) to update	Select the BMM units that store BMC firmware by clicking a radio button as follows: <ul style="list-style-type: none">• All: Used to select all BMMs installed in the system.• Specified unit(s): Used to select either BMM board.• Specified partition(s): Used to select a partition. Only the check boxes of units next to a clicked radio button can be checked. Other check boxes are grayed out, and input for them is not possible.
Select a BMC firmware file	Specify an update file containing BMC firmware.

Table 5.184 Buttons in the [BMC Firmware Update] window

Button	Description
Browse	Opens a file selection dialog box..
Update	Opens a confirmation dialog box displaying current firmware version information and update firmware version information.
Cancel	Cancels the settings made in this window.

(1) Menu operation

[Maintenance] → [Firmware Update] → [BMC Firmware Update]

(2) GUI operation

- 1 Select the BMM units that store the BMC firmware to be updated in [Select BMM(s) to update].
- 2 Click the [Browse] button, specify an update file containing BMC firmware, and click the [Update] button.

A confirmation dialog box opens with current firmware version information and update firmware version information displayed.

If the specified file is not a BMC firmware file, an error message is displayed. Then, a consistency check is performed to check whether the version of BMC firmware in the specified file matches that of other firmware files. If the versions do not match, a dialog box opens to indicate that they do not match and ask whether to continue or cancel processing.
- 3 Click the [OK] button in the confirmation dialog box to continue the update. The update is executed. When the update ends normally, a confirmation dialog box opens to indicate that the update is completed.

5.6.2 Backup/Restore Configuration menu

[Backup/Restore Configuration] menu provides the following windows:

- [Backup/Restore MMB Configuration]
- [Backup EFI Configuration]
- [Restore EFI Configuration]

This section describes these windows and their operations.

Be sure to periodically save MMB configuration and EFI configuration information.

5.6.2.1 [Backup/Restore MMB Configuration] window

MMB configuration information can be backed up and restored using the [Backup/Restore MMB Configuration] window. The MMB configuration information is saved on the PC that runs the Web browser.

Remarks: To restore the MMB configuration information, all partitions must be in the [Standby] state. For details on the procedure, see [Section 5.3.1](#), "[Power Control] window."

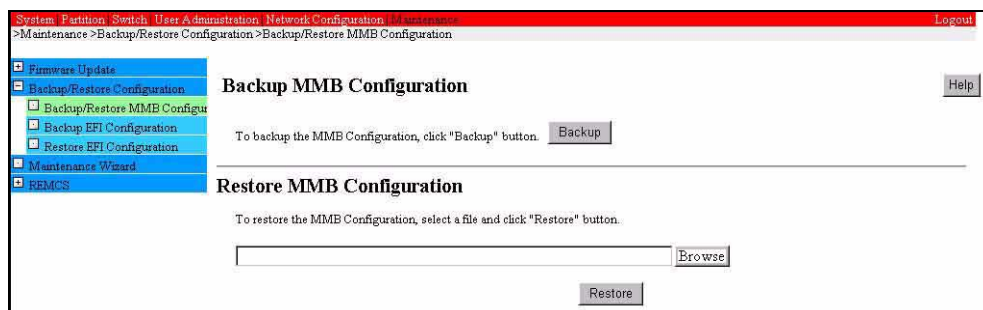


Figure 5.113 [Backup/Restore MMB Configuration] window

Table 5.185 Buttons in the [Backup/Restore MMB Configuration] window

Item	Description
Backup	Click the [Backup] button and a dialog box opens, and the save destination can be specified in the dialog box. Select the save path, and click the [OK] button to download the file. The default name of the backup MMB configuration file is: <ul style="list-style-type: none">• MMB_(backup-date)_(MMB-version).dat
Browse	Opens a file selection dialog box.
Restore	Select an MMB configuration file saved on a remote PC, and click the [Restore] button to transfer the file to the MMB. When file transfer to the MMB is completed, the [Backup/Restore MMB Configuration] dialog box opens for confirmation to restore the MMB configuration. Click the [OK] button to restore the MMB configuration.

(1) Menu operation

[Maintenance] → [Backup/Restore Configuration] → [Backup/Restore MMB Configuration]

(2) GUI operation

- Backing up MMB configuration information
 - 1 Click the [Backup] button.
The save destination dialog box opens in the browser.
 - 2 Select the save path in the save destination dialog box, and click the [OK] button.
The MMB configuration information file is downloaded.
- Restoring MMB configuration information
 - 1 Click the [Browse] button, and select a backup MMB configuration file.
 - 2 Click the [Restore] button.
The file is transferred to the MMB, and the [MMB Configuration File Information:] dialog box opens.
 - 3 Click the [OK] button in the [MMB Configuration File Information:] dialog box.
The MMB configuration file is restored.
 - 4 To validate the restored data, reboot the MMB.

5.6.2.2 [Backup EFI Configuration] window

The [Backup EFI Configuration] window can be used to back up EFI configuration information to the PC whose browser displays this window.

The PAL/SAL/EFI setting must be made for the individual partitions from the PAL/SAL/SETUP window. By using the backup/restoration function for the EFI configuration information, the PAL/SAL/EFI settings that are made on one partition can be backed up to the MMB and restored to another partition.

This section explains how to back up the EFI configuration information to a PC, where the browser is operating, and restore the backup information.

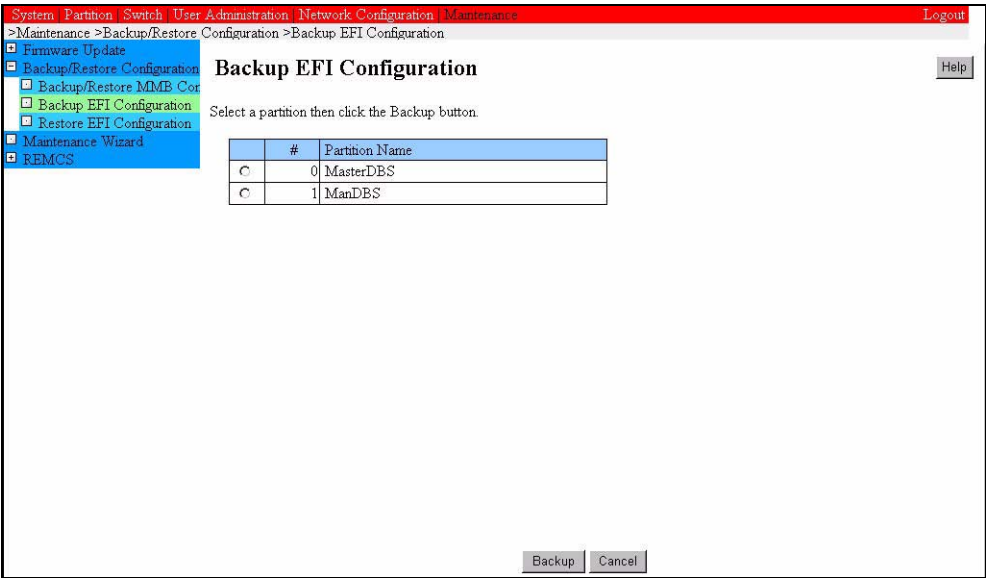


Figure 5.114 [Backup EFI Configuration] window

Table 5.186 Displayed and setting items in the [Backup EFI Configuration] window

Item	Description
(Radio buttons)	Select the partition whose EFI configuration information is to be backed up.
#	Partition number
Partition Name	Partition name

Table 5.187 Buttons in the [Backup EFI Configuration] window

Button	Description
Backup	Select the partition whose EFI configuration information is to be backed up, click the [Backup] button, and a dialog box opens in the browser. Select the save path, and click the [OK] button to download the file. The default name of the backup EFI configuration file is: <ul style="list-style-type: none">• partition-number_save-date_EFI-version.dat
Cancel	Click the [Cancel] button to cancel backing up the EFI configuration file.

(1) Menu operation

[Maintenance] → [Backup/Restore Configuration] → [Backup EFI Configuration]

(2) GUI operation

- 1 To back up EFI configuration information of a partition, select the partition by clicking its radio button, and click the [Backup] button.
The save destination dialog box opens.
- 2 Select the save path in the save destination dialog box, and click the [OK] button.
The EFI configuration information file is downloaded.

5.6.2.3 [Restore EFI Configuration] window

EFI configuration information can be restored using the [Restore EFI Configuration] window.

Remarks: To restore the EFI configuration information, all partitions must be in the [Standby] state. For details on the procedure, see [Section 5.3.1, "\[Power Control\] window."](#)

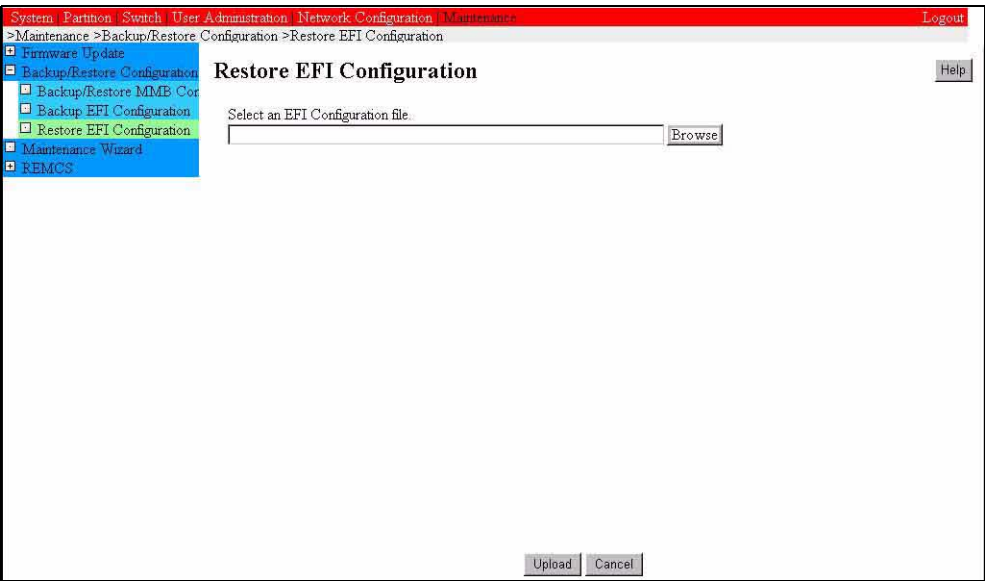


Figure 5.115 [Restore EFI Configuration-1] window

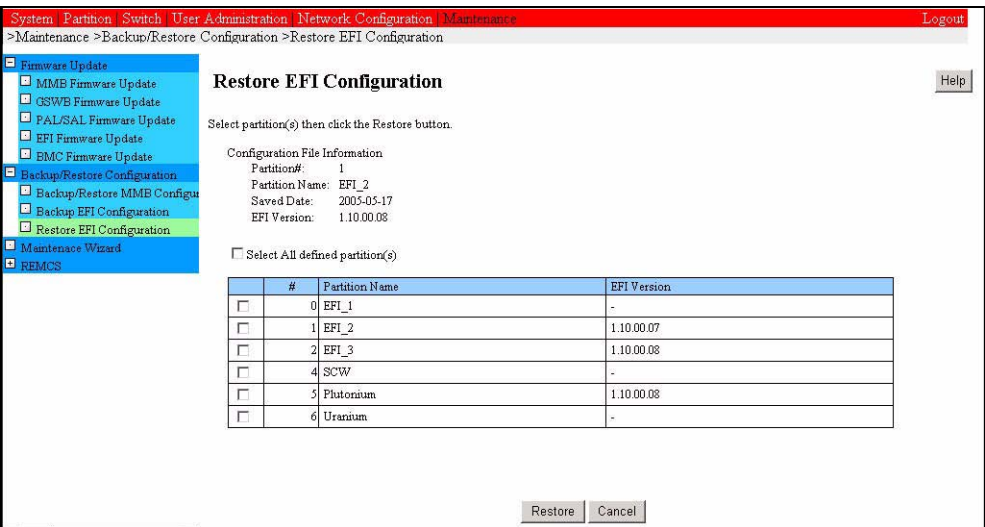


Figure 5.116 [Restore EFI Configuration-2] window

Table 5.188 Displayed and setting items in the [Restore EFI Configuration] window

Item	Description
Select an EFI Configuration file	Select a file containing backup EFI configuration information.
Configuration File Information:	Information on backup EFI configuration files: Partition#: Partition number Partition Name: Partition name Saved Date: Save date of the EFI configuration information EFI Version: EFI version
Select All defined partition(s)	Check this check box to select all partitions as the restoration destination.
(Check boxes)	Select partitions as the restoration destination by checking their check boxes.
#	Partition number of a partition that is the restoration destination
Partition Name	Partition name of a partition that is the restoration destination
EFI Version	Version of the EFI currently installed in a partition that is the restoration destination.

Table 5.189 Buttons in the [Restore EFI Configuration] window

Button	Description
Browse	Opens a file selection dialog box.
Upload	Transfers an EFI configuration information file to the MMB.
Cancel	Cancels transferring an EFI configuration information file.
Restore	Restores an EFI configuration information file.
Cancel	Cancel restoring an EFI configuration information file.

(1) Menu operation

[Maintenance] → [Backup/Restore Configuration] → [Restore EFI Configuration]

(2) GUI operation

- 1 Click the [Browse] button, and select a backup EFI configuration information file stored on a remote PC.
- 2 Click the [Upload] button.
The EFI configuration information file is transferred to the MMB, and the [Restore EFI Configuration-2] window is displayed.
- 3 In the [Restore EFI Configuration-2] window, select the partition in which the EFI configuration information file is to be restored, and click the [Restore] button.
The EFI configuration information file is restored.

5.6.3 [Maintenance Wizard] window

The [Maintenance Wizard] window can be used for device maintenance with a wizard.



Guarantee of operation

Fujitsu certified service engineers use the [Maintenance Wizard] window for maintenance. Customers should not use this window. Doing so may cause a failure.

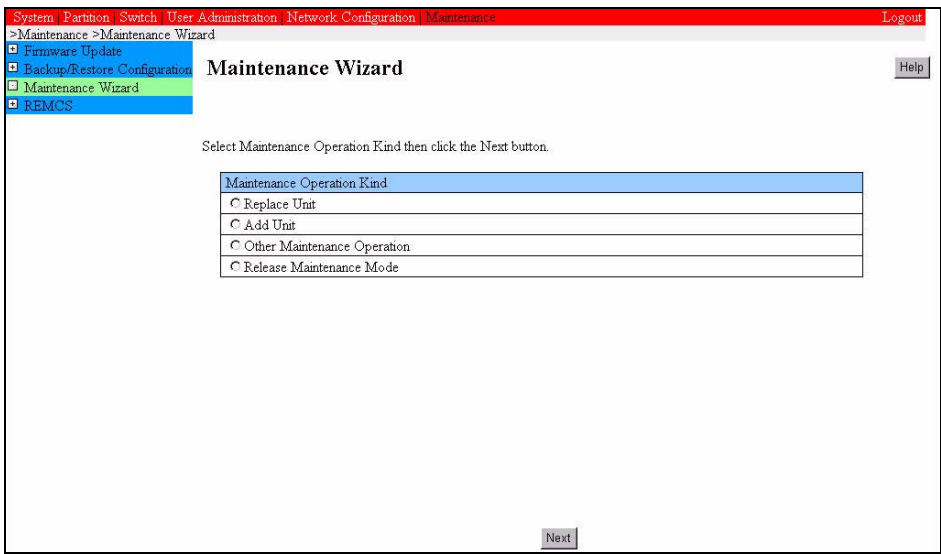


Figure 5.117 [Maintenance Wizard] window

Remarks: The PRIMEQUEST 500A/500-series machine may display the following window, depending on the MMB firmware version.

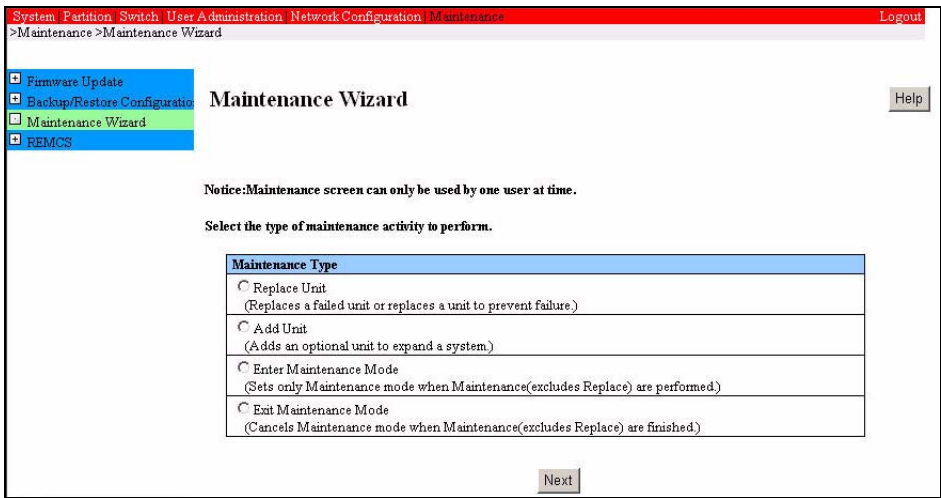


Figure 5.118 [Maintenance Wizard] window
(PRIMEQUEST 500A/500-series machine)

Table 5.190 Buttons in the [Maintenance Wizard] window

Button	Description
Next	Displays the [Maintenance Wizard (Select Maintenance Mode)] window.

(1) Menu operation

[Maintenance] → [Maintenance Wizard]

5.6.4 REMCS menu

The REMCS menu can be used for REMCS-related operations and settings.

For details on REMCS, see Chapter 7, "REMCS" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN).

CHAPTER 6 CLI Operations

This chapter describes operations performed to run and manage the PRIMEQUEST-series machine via the command line interface (CLI).

6.1 Basic CLI Operations

This section describes the command line interface (CLI) provided with the MMB.

The CLI can be accessed in either of the following two ways:

- Through the MMB serial port
- From a remote PC via the MMB management LAN

6.1.1 Access through the serial interface

- 1 Connect the MMB to the user terminal (e.g., notebook PC) with an RS-232C cross cable.
- 2 Launch the terminal software (e.g., Windows HyperTerminal) on the terminal, and set up the terminal software as follows.

Table 6.1 Setting items of terminal software

Setting item	Value
Bits per second	19200
Data bit	8
Parity	None
Stop bit	1
Flow control	None
Emulation	VT100

- 3 Enter a user name and password to log in when the login prompt is displayed.

6.1.2 Access via the management LAN interface

- 1 Connect the MMB to a remote PC with a straight LAN cable.
- 2 Launch a Telnet or SSH client on the remote PC, and specify the IP address of the MMB and the Telnet port number or the SSH port number to establish a connection.
- 3 Enter an account name and password to log in.

Additional note: The connection function provided by the MMB uses the SSH V2 protocol. Therefore, terminal software that supports SSH V2 must be prepared in order to establish an MMB connection using the SSH protocol.

6.1.3 List of CLI commands

The following table lists CLI commands. The letters in the Privilege column mean the following:

- Y: The command can be executed.
- N: The command cannot be executed.

Table 6.2 CLI commands

Command name	Privilege				Remarks
	Admin	Operator	User	CE	
factory_default (*1)	Y	N	N	Y	Restores information to its state at the time of shipment from the factory. Note: Do not use this command during system operation. Doing so restores all information to its state at the time of shipment from the factory.
add partition (PRIMEQUEST 500A/500 series only)	Y	N	N	N	Adds an SB and IO Unit to the specified partition.
clear access_control	Y	N	N	N	Clears the access control settings.
clear ssh_key	Y	Y	Y	Y	Deletes an SSH public key.
power off	Y	N	N	N	Powers off the entire system or specified partitions.
power on	Y	N	N	N	Powers on the entire system or specified partitions.

Command name	Privilege				Remarks
	Admin	Operator	User	CE	
remove partition (PRIMEQUEST 500A/500 series only)	Y	N	N	N	Removes an SB and IO Unit from the specified partition.
download ssh_key	N	N	Y	N	Downloads an SSH public key.
set active_mmb (PRIMEQUEST 580A/540A/580/540/480/440 only)	Y	N	N	Y	Sets Active MMB
set date	Y	N	N	N	Sets a date and time.
set timezone	Y	N	N	N	Sets a time zone.
set gateway	Y	N	N	N	Sets a default gateway.
set http	Y	N	N	N	Enables or disables the HTTP server.
set http_port	Y	N	N	N	Specifies the port used to accept an HTTP session.
set https	Y	N	N	N	Enables or disables the HTTPS server.
set https_port	Y	N	N	N	Specifies the port used to accept an HTTPS session.
set partition home (PRIMEQUEST 500A/500 series only)	Y	N	N	N	Sets Home IOU for the specified partition.
set partition name (PRIMEQUEST 500A/500 series only)	Y	N	N	N	Sets a name for the specified partition.
set partition dynamic_partitioning (PRIMEQUEST 580A/540A only)	Y	Y	N	N	Enables or disables Dynamic Partitioning for the specified partition.
set partition hyper_threading (PRIMEQUEST 500A/500 series only)	Y	Y	N	N	Enables or disables Hyper Threading for the specified partition.
set partition mirror_mode (PRIMEQUEST 500A/500 series only)	Y	Y	N	N	Sets the Mirror Mode of the specified partition.
set partition pci_address_mode (PRIMEQUEST 580A/540A/580/540 only)	Y	Y	N	N	Sets the PCI Address Mode of the specified partition
set ssh	Y	N	N	N	Enables or disables SSH.
set ssh_port	Y	N	N	N	Specifies the port used to accept an SSH session.

Command name	Privilege				Remarks
	Admin	Operator	User	CE	
set telnet	Y	N	N	N	Enables or disables Telnet.
set telnet_port	Y	N	N	N	Specifies the port used to accept a Telnet connection.
set ip	Y	N	N	N	Sets an IP address and a net mask for the management LAN interface.
set hostname	Y	N	N	N	Sets an MMB host name in the Fully Qualified Domain Name (FQDN) format.
set remcs	Y	N	N	Y	Sets routing for the REMCS port of the management LAN.
set split mode (PRIMEQUEST 500A/500 series only)	Y	N	N	N	Split the specified SB, IOU, or IOX.
show access_control	Y	N	N	N	Displays the current access control settings.
show active_mmb (PRIMEQUEST 580A/540A/580/540/480/440 only)	Y	Y	Y	Y	Displays the current Active MMB
show date	Y	Y	Y	Y	Displays the current date and time.
show timezone	Y	Y	Y	Y	Displays the time zone.
show gateway	Y	N	N	N	Displays the default gateway IP address that is set for the management LAN interface.
show http	Y	Y	Y	Y	Displays the current HTTP server status.
show http_port	Y	Y	Y	Y	Displays the port currently connected to an HTTP session.
show https	Y	Y	Y	Y	Displays the current HTTPS server status.
show https_port	Y	Y	Y	Y	Displays the port currently connected to an HTTPS session.
show partition configuration (PRIMEQUEST 500A/500 series only)	Y	Y	Y	Y	Shows an SB and IO Unit that are included in a partition.
show partition home (PRIMEQUEST 500A/500 series only)	Y	Y	Y	Y	Shows the Home IOU of the specified partition.
show partition name (PRIMEQUEST 500A/500 series only)	Y	Y	Y	Y	Shows the name of the specified partition.

Command name	Privilege				Remarks
	Admin	Operator	User	CE	
show partition dynamic_partitioning (PRIMEQUEST 580A/540A only)	Y	Y	Y	Y	Displays the Dynamic Partitioning status in the specified partition.
show partition hyper_threading (PRIMEQUEST 500A/500 series only)	Y	Y	Y	Y	Displays the Hyper Threading status in the specified partition.
show partition mirror_mode (PRIMEQUEST 500A/500 series only)	Y	Y	Y	Y	Displays the Mirror Mode of the specified partition.
show partition pci_address_mode (PRIMEQUEST 580A/540A/ 580/540 only)	Y	Y	Y	Y	Displays the PCI Address Mode of the specified partition
show ssh	Y	Y	Y	Y	Displays the current SSH server status.
show ssh_port	Y	Y	Y	Y	Displays the port currently connected to an SSH session.
show telnet	Y	Y	Y	Y	Displays the current Telnet server status.
show telnet_port	Y	Y	Y	Y	Displays the port currently connected to a Telnet session.
show ip	Y	Y	Y	Y	Displays the IP address and the net mask that are set for the management LAN interface.
show hostname	Y	Y	Y	Y	Displays the MMB host name.
show network	Y	Y	Y	Y	Displays the network configuration that is set for the management LAN interface.
show remcs	Y	N	N	Y	Displays the routing configuration information for the REMCS port of the management LAN.
show split mode	Y	Y	Y	Y	Displays the split status of the specified SB, IOU, or IOX.
who	Y	Y	Y	Y	Displays the login names and times of users who are logged in to the MMB.
help	Y	Y	Y	Y	Displays help information on available commands.
update MMB	Y	N	N	Y	Updates MMB firmware.
update BMC	Y	N	N	Y	Updates BMC firmware.
update EFI	Y	N	N	Y	Updates EFI firmware.

Command name	Privilege				Remarks
	Admin	Operator	User	CE	
update SAL	Y	N	N	Y	Updates PAL/SAL firmware.
connect GSWB (only for PRIMEQUEST 580A/540A/580/540/480/440)	Y	Y	Y	Y	Establishes a connection to the specified GSWB (0 or 1).
exit	Y	Y	Y	Y	Logs out.
password	Y	Y	Y	Y	Changes the password.
ping	Y	Y	Y	Y	Sends an ICMP echo message to the destination specified in <IP address> or <server name>.

- *1 Do not use this command during system operation. Doing so restores all information to its state at the time of shipment from the factory.

6.2 Setting Commands

The following commands are used to specify information:

- factory_default
- add partition
- clear access_control
- clear ssh_key
- power off
- power on
- remove partition
- download ssh_key
- set date
- set active_MMB
- set timezone
- set gateway
- set http
- set http_port
- set https
- set https_port
- set partition home
- set partition name
- set partition dynamic_partitioning
- set partition hyper_threading
- set partition mirror_mode
- set partition pci_address_mode
- set ssh
- set ssh_port
- set telnet
- set telnet_port
- set ip
- set hostname
- set remcs
- set split mode

This section describes how to use these commands.

6.2.1 factory_default

This command resets MMB configuration information to the default values.

Executing this command restores all information to its state at the time of shipment from the factory.

Therefore, user and network configurations must be set up again after the command is executed.

Remarks: This command is effective only for active MMBs.

- Privilege: Users with the Admin privilege or CE privilege

(1) Synopsis

```
factory_default [-f]
```

(2) Options

-f: Sets factory default values without prompting for confirmation.

(3) Examples

```
# factory_default  
Reset to factory default [n]: y
```

6.2.2 add partition (PRIMEQUEST 500A/500 series only)

This command adds the specified SB, IO Unit, and IOX to the specified partition.

Note that if the specified SB, IO Unit, and IOX are not available (free), an error occurs.

- Privilege: Administrator

(1) Synopsis

Note: On the PRIMEQUEST 520A/520, specify <IOU#x> as follows depending on the specified unit:

- To specify an IOU: IOU#0
- To specify an IOX: IOU#1

```
add partition <partition#> SB <SB#x>[A|B] [quiet]  
add partition <partition#> IOU <IOU#x>[A|B] [quiet]
```

(2) Options

quiet: Executes the command without interactive operation for users.

(3) Examples

Adding SB#3 to Partition #4

```
# add partition 4 SB 3
Are you sure to continue adding SB#3 to Partition#4? [Y/N] Y
Adding SB#3 to Partition#4 has been completed successfully.
#
```

Adding SB#5A to Partition #4

```
# add partition 4 SB 5A
Are you sure to continue adding SB#5A to Partition#4? [Y/N] Y
Adding LSB#5 to Partition#4 has been completed successfully.
#
```

6.2.3 clear access_control

Clears the IP filtering settings.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
clear access_control
```

(2) Options

None

(3) Examples

None

6.2.4 clear ssh_key

This command deletes a public key that is registered for a logged-in user and used for SSH public key authentication.

- Privilege: Any user

(1) Synopsis

```
clear ssh_key
```

(2) Options

None

(3) Examples

None

6.2.5 power off

This command powers off the entire system or specified partitions.

A partition that is specified in the parameter but not yet configured is ignored. The command does not have an effect on a specified partition that is already off.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
power off [chassis | partition {all | <partition#> [{, | -} <partition#>]}] [force]
```

(2) Options

- chassis: Powers off the cabinet. (PRIMEQUEST 580A/540A/580/540/480/440 only)
The OSs of all partitions are shut down before the cabinet is powered off.
- partition: Shuts down the OSs of the partitions whose partition numbers are specified and then powers off the partitions. Partitions can be specified in any of the following ways:
 - Specify the -all option (which selects all defined partitions).
 - Specify partition numbers delimited by commas.
 - Specify a partition number range.
- force: Forcibly powers off a partition without shutting down the OS running in it.

(3) Examples

None

6.2.6 power on

This command powers on the entire system or specified partitions.

A partition that is specified in the parameter but not yet configured is ignored. The command does not have an effect on a specified partition that is already on.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
power on {chassis | partition {all | <partition#> [{, | -} <partition#>]}}
```

(2) Options

- chassis: Powers on the cabinet. The powered-on components include the GSWB. (PRIMEQUEST 580A/540A/580/540/480/440 only)
This option does not power on partitions.
- partition: Powers on the partitions whose partition numbers are specified.
If the cabinet has not yet been powered on, this option automatically powers on the cabinet before powering on the specified partitions. Partitions can be specified in any of the following ways:
 - Specify the -all option (which selects all defined partitions).
 - Specify partition numbers delimited by commas.
 - Specify a partition number range.

(3) Examples

None

6.2.7 remove partition (PRIMEQUEST 500A/500 series only)

This command removes the specified SB, IO Unit, and IOX from the specified partition.

Note that if the specified SB, IO Unit, and IOX are not included in the partition, an error occurs.

- Privilege: Users with administrator privilege

(1) Synopsis

Note: On the PRIMEQUEST 520A/520, specify <IOU#x> as follows depending on the specified unit:

- To specify an IOU: IOU#0
- To specify an IOX: IOU#1

```
remove partition <partition#> SB <SB#>{A | B} {quiet}  
remove partition <partition#> IOU <IOU#>{A | B} {quiet}
```

(2) Options

- quiet: Executes the command without interactive operation for Users.

(3) Examples

Removing SB#5A from Partition #4

```
# remove partition 4 SB 5A  
Are you sure to continue removing SB#5A from Partition#4? [Y/N] Y  
Removing SB#5A from Partition#4 has been completed successfully.  
#
```

6.2.8 download ssh_key

This command downloads and registers a public key from a specified server so that a logged-in user can use the public key for SSH public key authentication.

The input format for the URL is as follows:

- http://host/path/file
- ftp://host/path/file

If no server is specified, the following message is displayed to prompt for URL input:

#download ssh_key

URL:

- Privilege: Users with the User privilege

(1) Synopsis

```
download ssh_key<URL>
```

(2) Options

None

(3) Examples

None

6.2.9 **set active_mmb (under review) (PRIMEQUEST 580A/540A/580/540/480/440 only)**

This command sets the active MMB. This command can be issued while a standby MMB is connected.

Also, this command can be executed only when the following conditions are satisfied:

- Both MMB#0 and MMB#1 are mounted.
- "Normal" is displayed for [Status] in the information frame in the MMB Web-UI window.
- "OK" is displayed for MMB#0 and MMB#1 in the [System Status] window (MMB Web-UI window).
- The Alarm LEDs of MMB#0 and MMB#1 are OFF.

If this command is issued with parameters omitted, the MMB connected through the CLI is assumed specified as the active MMB.

- Privilege: Users with the Admin or CE privilege

(1) **Synopsis**

```
set active_mmb [0 | 1] [quiet]
```

(2) **Options**

0: Specifies MMB#0.

1: Specifies MMB#1.

quiet: Switches the active MMB without an interactive operation with the user.

(3) **Examples**

None

6.2.10 set date

This command sets a date and time. Specify a date and time in the following format:

- MM : Month (01 to 12)
- DD : Day (day of the month)
- hh : Hour (00 to 23)
- mm : Minute (00 to 59)
- CC : See Options.
- YY : See Options.
- ss : See Options.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set date MMDDhhmm {[CC] YY} [,ss]
```

(2) Options

- CC : Specify the first two digits of a year.
- YY : Specify the last two digits of a year.
- ss : Specify the seconds.

(3) Examples

None

6.2.11 set timezone

This command sets a time zone.

The date and time must be set again with the set date command after a time zone is set.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set timezone <timezone>
```

(2) Options

<timezone>: region/city name

Table 6.3 lists the time zone settings.

Table 6.3 Time zone settings

Region name	Specification format (region/city name)		
America	America/Anchorage	America/Adak	America/Indiana/ Indianapolis
	America/Indiana/Knox	America/Indiana/ Marengo	America/Indiana/ Petersburg
	America/Indiana/Vevay	America/Indiana/ Vincennes	America/Anguilla
	America/Araguaina	America/Aruba	America/Atka
	America/Bahia	America/Belem	America/Boa_Vista
	America/Boise	America/Buenos_Aires	America/Cambridge_Bay
	America/Campo_Grande	America/Catamarca	America/Cayman
	America/Chicago	America/Coral_Harbour	America/Cordoba
	America/Cuiaba	America/Curacao	America/Danmarkshavn
	America/Dawson	America/Dawson_Creek	America/Denver
	America/Detroit	America/Edmonton	America/Eirunepe
	America/Fort_Wayne	America/Fortaleza	America/Glace_Bay
	America/Godthab	America/Goose_Bay	America/Grand_Turk
	America/Guadeloupe	America/Halifax	America/Indianapolis
	America/Inuvik	America/Iqaluit	America/Jujuy
	America/Juneau	America/Knox_IN	America/Los_Angeles
	America/Louisville	America/Maceio	America/Manaus
	America/Martinique	America/Mendoza	America/Menominee
	America/Miquelon	America/Moncton	America/Montreal
	America/Montserrat	America/New_York	America/Nipigon
	America/Nome	America/Noronha	America/Pangnirtung
	America/Phoenix	America/Porto_Acre	America/Porto_Velho
	America/Puerto_Rico	America/Rainy_River	America/Rankin_Inlet
	America/Recife	America/Regina	America/Rio_Branco
	America/Rosario	America/Sao_Paulo	America/Scoresbysund
	America/Shiprock	America/St_Thomas	America/St_Vincent
	America/Swift_Current	America/Thule	America/Thunder_Bay
	America/Toronto	America/Vancouver	America/Virgin
	America/Whitehorse	America/Winnipeg	America/Yakutat
	America/Yellowknife	America/Argentina/ Buenos_Aires	America/Argentina/ Catamarca
	America/Argentina/ ComodRivadavia	America/Argentina/ Cordoba	America/Argentina/Jujuy
	America/Argentina/ La_Rioja	America/Argentina/ Mendoza	America/Argentina/ Rio_Gallegos
	America/Argentina/ San_Juan	America/Argentina/ Tucuman	America/Argentina/ Ushuaia
	America/Kentucky/ Louisville	America/Kentucky/ Monticello	America/North_Dakota/ Center

Region name	Specification format (region/city name)		
Asia	Asia/Seoul	Asia/Tokyo	
Atlantic	Atlantic/Azores	Atlantic/Bermuda	Atlantic/Canary
	Atlantic/Jan_Mayen	Atlantic/Faeroe	Atlantic/Reykjavik
	Atlantic/Madeira	Atlantic/South_Georgia	Atlantic/St_Helena
	Atlantic/Stanley		
Australia	Australia/Adelaide	Australia/ACT	Australia/Brisbane
	Australia/Broken_Hill	Australia/Canberra	Australia/Currie
	Australia/Darwin	Australia/Hobart	Australia/LHI
	Australia/Lindeman	Australia/Lord_Howe	Australia/Melbourne
	Australia/NSW	Australia/North	Australia/Perth
	Australia/Queensland	Australia/South	Australia/Sydney
	Australia/Tasmania	Australia/Victoria	Australia/West
	Australia/Yancowinna		
Brazil	Brazil/DeNoronha	Brazil/Acre	Brazil/East
	Brazil/West		
Canada	Canada/Atlantic	Canada/Central	Canada/East-Saskatchewan
	Canada/Eastern	Canada/Mountain	Canada/Newfoundland
	Canada/Pacific	Canada/Saskatchewan	Canada/Yukon
Europe	Europe/Amsterdam	Europe/Athens	Europe/Belfast
	Europe/Berlin	Europe/Brussels	Europe/Bucharest
	Europe/Budapest	Europe/Copenhagen	Europe/Dublin
	Europe/Gibraltar	Europe/Helsinki	Europe/Lisbon
	Europe/London	Europe/Luxembourg	Europe/Madrid
	Europe/Mariehamn	Europe/Oslo	Europe/Paris
	Europe/Prague	Europe/Rome	Europe/Stockholm
	Europe/Vatican	Europe/Vienna	Europe/Warsaw
Pacific	Europe/Zurich		
	Pacific/Auckland	Pacific/Chatham	Pacific/Fakaofo
	Pacific/Guam	Pacific/Honolulu	Pacific/Johnston
	Pacific/Marquesas	Pacific/Midway	Pacific/Niue
	Pacific/Norfolk	Pacific/Pago_Pago	Pacific/Pitcairn
	Pacific/Rarotonga	Pacific/Saipan	Pacific/Tahiti
America	Pacific/Wallis		
	US/Aleutian	US/Alaska	US/East-Indiana
	US/Arizona	US/Central	US/Michigan
	US/Eastern	US/Hawaii	US/Indiana-Starke
	US/Mountain	US/Pacific	US/Pacific-New
	US/Samoa		

(3) Examples

```
# set timezone Asia/Tokyo
```

6.2.12 set gateway

This command sets the default gateway.

- Privilege: Users with the Admin or CE privilege

(1) Synopsis

```
set gateway <ip address>
```

(2) Options

None

(3) Examples

None

6.2.13 set http

This command enables or disables the HTTP server.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set http {enable | disable}
```

(2) Options

None

(3) Examples

None

6.2.14 set http_port

This command sets the port number of the port used to accept an HTTP session.

The default setting is 8081. The setting range is 1024 to 65535.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set http_port <port>
```

(2) Options

None

(3) Examples

None

6.2.15 set https

This command enables or disables the HTTPS server.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set https {enable | disable}
```

(2) Options

None

(3) Examples

None

6.2.16 set https_port

This command sets the port number of the port used to accept an HTTPS session.

The default setting is 432. The setting range is 432,1024 to 65535.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set https_port <port>
```

(2) Options

None

(3) Examples

None

6.2.17 set partition home (PRIMEQUEST 500A/500 series only)

This command sets the Home IOU of the specified partition. It specifies the number of the IO Unit or IOX to be set to the Home and the BMM number in that IO Unit and IOX.

If the specified IO Unit and BMM are not found, an error occurs.

- Privilege: Users with Administrator privilege

(1) Synopsis

Note: On the PRIMEQUEST 520A/520, specify <IOU#x> as follows depending on the specified unit:

- To specify an IOU: IOU#0
- To specify an IOX: IOU#1

```
set partition home <partition#> IOU <IOU#>[A|B] <BMM#>
```

(2) Options

None

(3) Examples

Setting BMM#1 of IOU#2 in Partition 3 as Home

```
# set partition home 3 IOU 2 1
#
```

Setting BMM#0 of IOU#4A in Partition 3 as Home

```
# set partition home 3 IOU 4A 0
#
```

6.2.18 set partition name (PRIMEQUEST 500A/500 series only)

This command sets a partition name for the specified partition. Set the partition name using up to 16 characters.

The specifiable characters are [a-z], [A-Z], [0-9], an underline [_], hyphen [-], sharp [#], and blank [].

Remarks: When the partition name includes a blank, specify it, enclosed in double quotation marks.

- Privilege: Users with Administrator privilege

(1) Synopsis

```
set partition name <partition#> <partition name>
```

(2) Options

None

(3) Examples

Setting name "ABC" for Partition 3

```
# set partition name 3 ABC
#
```

6.2.19 **set partition dynamic_partitioning (PRIMEQUEST 580A/540A only)**

This command enables or disables Dynamic Partitioning for the specified partition.

- Issuing this command to change the setting for a partition whose power is on
To make the new setting effective, the power to the partition needs to be turned off and then turned on again. The following message is displayed to notify the user that the power must be turned off and on:
"The setting will become effective the next time the partition power off/on is performed."
- Issuing this command to change the setting for a partition whose power is off
The new setting becomes effective immediately.
- Privilege: Users with Administrator privilege or Operator privilege

(1) Synopsis

```
set partition dynamic_partitioning <partition#> {disable | enable} [quiet]
```

(2) Options

quiet: Suppresses message display.

(3) Examples

Enabling Dynamic Partitioning for Partition 3 (whose power is on)

```
# set partition dynamic_partitioning 3 enable
The setting will become effective the next time the partition
power off/on is performed
#
```

6.2.20 **set partition hyper_threading (PRIMEQUEST 500A/500 series only)**

This command enables or disables Hyper Threading for the specified partition.

- Issuing this command to change the setting for a partition whose power is on
To make the new setting effective, the power to the partition needs to be turned off and then turned on again. The following message is displayed to notify the user that the power must be turned off and on:
"The setting will become effective the next time the partition power off/on is performed."
- Issuing this command to change the setting for a partition whose power is off
The new setting becomes effective immediately.
- Privilege: Users with Administrator privilege or Operator privilege

(1) **Synopsis**

```
set partition hyper_threading <partition#> {disable | enable} [quiet]
```

(2) **Options**

quiet: Suppresses message display.

(3) **Examples**

Enabling Hyper Threading for Partition 3 (whose power is on)

```
# set partition hyper_threading 3 enable
The setting will become effective the next time the partition
power off/on is performed
#
```

6.2.21 set partition mirror_mode (PRIMEQUEST 500A/500 series only)

This command sets the Mirror Mode of the specified partition. A Mirror License is required for setting Extended Mirror Mode (extended).

- Issuing this command to change the setting for a partition whose power is on
To make the new setting effective, the power to the partition needs to be turned off and then turned on again. The following message is displayed to notify the user that the power must be turned off and on:
"The setting will become effective the next time the partition power off/on is performed."
- Issuing this command to change the setting for a partition whose power is off
The new setting becomes effective immediately.
- Privilege: Users with Administrator privilege or Operator privilege

(1) Synopsis

```
set partition mirror_mode <partition#> {standard | extended} [quiet]
```

(2) Options

quiet: Suppresses message display.

(3) Examples

Changing the Mirror Mode of Partition 3 (whose power is on) to Extended Mirror Mode (extended)

```
# set partition mirror_mode 3 extended
The setting will become effective the next time the partition
power off/on is performed
#
```

6.2.22 **set partition pci_address_mode (PRIMEQUEST 580A/540A/580/540 only)**

This command sets the PCI Address Mode of the specified partition.

- Issuing this command to change the setting for a partition whose power is on
To make the new setting effective, the power to the partition needs to be turned off and then turned on again. The following message is displayed to notify the user that the power must be turned off and on:
"The setting will become effective the next time the partition power off/on is performed."
- Issuing this command to change the setting for a partition whose power is off
The new setting becomes effective immediately.
- Privilege: Users with Administrator privilege or Operator privilege

(1) Synopsis

```
set partition pci_address_mode <partition#> {bus | segment} [quiet]
```

(2) Options

quiet: Suppresses message display.

(3) Examples

Changing the PCI Address Mode of Partition 3 (whose power is on) to Segment Mode

```
# set partition pci_address_mode 3 segment
The setting will become effective the next time the partition
power off/on is performed
#
```

Changing the PCI Address Mode of Partition 2 (whose power is off) to PCI Bus Mode

```
# set partition pci_address_mode 2 bus
#
```

6.2.23 set ssh

This command enables or disables SSH.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set ssh {enable | disable}
```

(2) Options

None

(3) Examples

None

6.2.24 set ssh_port

This command sets the port number of the port used to accept an SSH session.

The default setting is 22. The setting range is 22,1024 to 65535.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set ssh_port <port>
```

(2) Options

None

(3) Examples

None

6.2.25 set telnet

This command enables or disables Telnet.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set telnet {enable | disable}
```

(2) Options

None

(3) Examples

None

6.2.26 set telnet_port

This command sets the port number of the port used to accept a Telnet connection.

The default setting is 23. The setting range is 23,1024 to 65535.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set telnet_port <port>
```

(2) Options

None

(3) Examples

None

6.2.27 set ip

This command sets an IP address and a net mask for the management LAN interface.

Specify the physical IP address of the MMB connected to a serial port.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set ip <ip address> <netmask>
```

(2) Options

None

(3) Examples

None

6.2.28 set hostname

This command sets an MMB host name in the Fully Qualified Domain Name (FQDN) format.

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set hostname <host name>.<domain name>
```

(2) Options

None

(3) Examples

```
# set hostname XXXXX.fujitsu.com
```

6.2.29 set remcs

This command sets routing for the REMCS port of the management LAN.

Note:

- If this command is used to change the SMTP address, the SMTP server configuration must also be changed in the [REMCS Environment Setup] window. In addition, before REMCS initialization, the routing must be set with this command.
 - When the REMCS connection is done with P-P, the < gateway address > and the <SMTP address> settings are unnecessary.
In this case, specify 0.0.0.0 for <gateway address> and <SMTP address>.
 - Specify "0.0.0.0" for "ip address" when you invalidate the setting with this command. Specify any value for other parameters. (Specifying 0.0.0.0 is recommended.)
- Privilege: Users with the Admin or CE privilege

(1) Synopsis

```
set remcs <ip address> <subnet mask> <gateway address> <smtp address>
```

<ip address>: IP address assigned to the REMCS port

<subnet mask>: Subnet mask of the IP address

<gateway address>: gateway Address

<smtp address>: Mail server used for REMCS notification

(2) Options

None

(3) Examples

None

6.2.30 set split_mode (PRIMEQUEST 500A/500 series only)

This command splits the specified SB, IOU or IOX.

Remarks: Only a free SB, IOU or IOX can be specified

- Privilege: Users with the Admin privilege

(1) Synopsis

```
set split_mode sb <SB#> {enable | disable}  
set split_mode iou <IOU#> {enable | disable} [<port mask>]
```

(2) Options

<port mask>: specifies whether to allocate a IOU port to the A side or the B side when IOU splitting is in effect. This option can only be specified if "enable" is set for split_mode.

If this option is omitted, the default settings for splitting take effect. Specify the port mask as a hexadecimal value having a bit pattern according to the following list:

1b refers to the A side, while 0b refers to the B side.

bit[1:0]: reserved (0)

bit[2] (port B0)

bit[3] (port B1)

bit[4] (port C0)

bit[5] (port C1)

bit[6] (port D0)

bit[7] (port D1)

As the actual devices that correspond to the individual bits (ports) vary with the IOU, settings are not compatible from one IOU to the other. Therefore, these settings must be applied carefully.

The following table shows the assignment of each bit.

Table 6.4 Bit assignment

bit	PRIMEQUEST 580A/ 540A/580/540/480/440	IOU in PRIMEQUEST 520A/520/420	IOX in PRIMEQUEST 520A/520/420
bit[2]	PCI Slot#0,#1	PCIe Slot#0,#1	PCI_Box port#0
bit[3]	PCI Slot#2,#3	-	PCI_Box port#1
bit[4]	PCI_Box port#0	PCIe Slot#2,#3	PCI_Box port#2
bit[5]	PCI_Box port#1	-	PCI_Box port#3
bit[6]	PCI_Box port#2	PCI Slot#4,#5	-
bit[7]	PCI_Box port#3	PCI Slot#6,#7	-

(3) Examples

Splitting SB#1

```
#set split_mode sb 1 enable
```

Splitting IOU#2

```
#set split_mode iou 2 enable
```

Splitting IOU#3 while at the same time assigning the various ports

```
Assigning port B0 and B1 to the A side, and port C0, C1, D0,
and D1 to the B side.
#set split_mode iou 3 enable 0x0C
```

6.3 Display Commands

The following commands are used to display information:

- show access_control
- show active_mmb
- show date
- show partition configuration
- show partition home
- show partition name
- show partition dynamic_partitioning
- show partition hyper_threading
- show partition mirror_mode
- show partition pci_address_mode
- show timezone
- show gateway
- show https
- show https_port
- show ip
- show hostname
- show ssh
- show ssh_port
- show telnet
- show telnet_port
- show network
- show remcs
- show split mode
- who
- help

This section describes how to use these commands.

6.3.1 **show access_control**

This command displays the current access control settings.

- Privilege: Users with the Admin privilege

(1) **Synopsis**

```
show access_control
```

(2) **Options**

None

(3) **Examples**

None

6.3.2 **show active_mmb (PRIMEQUEST 580A/540A/580/540/480/440 only)**

This command shows the current active MMB. This command can be issued from a standby MMB.

- Privilege: All users

(1) **Synopsis**

```
# show active_mmb
```

(2) **Options**

None

(3) **Examples**

None

6.3.3 show date

This command displays the current date and time.

- Privilege: Any user

(1) Synopsis

```
show date
```

(2) Options

None

(3) Examples

```
# show date  
2004-08-31 20:40:17
```

6.3.4 show partition configuration (PRIMEQUEST 500A/500 series only)

This command displays an SB, IO Unit, and IOX that are included in a partition.

Specify the displayed partition as follows:

- all: Displays every partition. (Including free partitions)
 - free: Displays an SB, IO Unit, and IOX that are not included in any partition.
 - Specify the partitions that you want to display by delimiting their partition numbers with commas or specifying the range of partition numbers, or both.
- Privilege: All users

(1) Synopsis

```
show partition configuration {all | free | <partition#> [{, | -}  
<partition#>]}
```

(2) Options

None

(3) Examples

This command displays information on one partition per row. Each column contains the following:

First column: Partition number

Second column: Partition name

Third column: Home IOU (displayed in the form of "IOU#x{A|B}-BMM#y")

Fourth and later columns: The SBs and IO Units or IOXs contained in the partition are displayed in this order. The SBs and IO Units or IOXs are displayed in ascending order of their numbers.

Reserved SBs are displayed as SB#x prefixed with "R."

Remarks: For the PRIMEQUEST 520A/520, an IOX is represented as "IOU1." If the IOX is split, "IOU1A" and "IOU1B" are displayed.

Displaying the configuration information of partition umbers 0 to 4

```
# show partition configuration 0-4
0  hogehoge      IOU0-BMM0    SB0 RSB2A IOU0 IOU2
1  testserver    IOU3-BMM1    SB3A IOU3
2  IOU1A-BMM0    SB2B IOU1A   IOU7
3  pleiades      IOU4B-BMM1    SB3B IOU4B
4  foo
#
```


When "all" is specified for the same configuration as above

```
# show partition configuration all
0 hogehoge IOU0-BMM#0 SB0 RSB2A IOU0 IOU2
1 testserver IOU3-BMM#1 SB3A IOU3
2 IOU1A-BMM0 SB2B IOU1A IOU7
3 pleiades IOU4B-BMM1 SB3B IOU4B
4 foo
6 <Blank is displayed because nothing is registered.>
7 <Same as above>
8 <Same as above>
9 <Same as above>
10 <Same as above>
11 <Same as above>
12 <Same as above>
13 <Same as above>
14 <Same as above>
15 <Same as above>
free SB4 IOU5

# show partition configuration 0-4
0 hogehoge IOU0-BMM0 SB0 RSB2A IOU0 IOU2
1 testserver IOU3-BMM1 SB3A IOU3
2 IOU1A-BMM0 SB2B IOU1A IOU7
3 pleiades IOU4B-BMM1 SB3B IOU4B
4 foo
#
```

6.3.5 show partition home (PRIMEQUEST 500A/500 series only)

This command displays the Home IOU and Home IOX of the specified partition.

Remarks: For the PRIMEQUEST 520A/520, an IOX is represented as "IOU1." If the IOX is split, "IOU1A" and "IOU1B" are displayed.

- Privilege: All users

(1) Synopsis

```
show partition home <partition#>
```

(2) Options

None

(3) Examples

Displaying the Home IOU of Partition 3 (IOU not divided)

```
# show partition home 3
IOU2-BMM1
#
```

Displaying the Home IOX of Partition 3 (IOX divided)

```
# show partition home 3
IOU1A-BMM1
#
```

6.3.6 show partition name (PRIMEQUEST 500A/500 series only)

This command displays the name of the specified partition.

- Privilege: All users

(1) Synopsis

```
show partition name <partition#>
```

(2) Options

None

(3) Examples

Displaying the name of Partition 3

```
# show partition name 3
hogehoge
#
```

6.3.7 **show partition dynamic_partitioning (PRIMEQUEST 580A/540A only)**

This command displays the Dynamic Partitioning status in the specified partition.

- Privilege: All users

(1) Synopsis

```
show partition dynamic_partitioning <partition#>
```

(2) Options

None

(3) Examples

Displaying the Dynamic Partitioning status in Partition 3

```
# show partition dynamic_partitioning 3
current: disabled
setting: enabled
#
```

6.3.8 **show partition hyper_threading (PRIMEQUEST 500A/500 series only)**

This command displays the Hyper Threading status in the specified partition.

- Privilege: All users

(1) Synopsis

```
show partition hyper_threading <partition#>
```

(2) Options

None

(3) Examples

Displaying the Hyper Threading status in Partition 3

```
# show partition hyper_threading 3
current: disabled
setting: enabled
#
```

6.3.9 **show partition mirror_mode (PRIMEQUEST 500A/500 series only)**

This command displays the Mirror Mode of the specified partition.

- standard: Standard Mirror Mode
- extended: Extended Mirror Mode
- Privilege: All users

(1) **Synopsis**

```
show partition mirror_mode <partition#>
```

(2) **Options**

None

(3) **Examples**

Displaying the Mirror Mode of Partition 3

```
# show partition mirror_mode 3
current: standard
setting: extended
#
```

6.3.10 **show partition pci_address_mode (PRIMEQUEST 580A/540A/580/540 only)**

This command displays the PCI Address Mode of the specified partition.

bus: PCI Bus Mode

segment: PCI Segment Mode

- Privilege: All users

(1) **Synopsis**

```
show partition pci_address_mode <partition#>
```

(2) **Options**

None

(3) **Examples**

Displaying the PCI Address Mode of Partition 3

```
# show partition pci_address_mode 3
current: bus
setting: segment
#
```

6.3.11 show timezone

This command displays the time zone.

- Privilege: Any user

(1) Synopsis

```
show timezone
```

(2) Options

None

(3) Examples

```
# show timezone  
Timezone is set to "Asia/Tokyo"
```

6.3.12 show gateway

This command displays the default gateway IP address that is set for the management LAN interface.

- Privilege: Any user

(1) Synopsis

```
show gateway
```

(2) Options

None

(3) Examples

```
# show gateway  
Gateway Address: 10.1.2.1
```

6.3.13 show http

This command displays the current HTTP server status (enabled or disabled).

- Privilege: Any user

(1) Synopsis

```
show http
```

(2) Options

None

(3) Examples

```
# show http
HTTP: disabled
```

6.3.14 show http_port

This command displays the port number of the port currently connected to an HTTP session.

- Privilege: Any user

(1) Synopsis

```
show http_port
```

(2) Options

None

(3) Examples

```
# show http_port
HTTP Port Number:8081
```

6.3.15 show https

This command displays the current HTTP server status (enabled or disabled).

- Privilege: Any user

(1) Synopsis

```
show https
```

(2) Options

None

(3) Examples

```
# show https
HTTPS: disabled
```

6.3.16 show https_port

This command displays the current HTTPS server status (enabled on disabled).

- Privilege: Any user

(1) Synopsis

```
show https_port
```

(2) Options

None

(3) Examples

```
# show https_port
HTTPS Port Number:432
```


6.3.17 **show ip**

This command displays the IP address and the net mask that are set for the management LAN interface.

- Privilege: Any user

(1) **Synopsis**

```
show ip
```

(2) **Options**

None

(3) **Examples**

```
# show ip
IP Address   : 10.1.2.124
Netmask      : 255.255.255.0
```

6.3.18 **show hostname**

This command displays the MMB host name.

- Privilege: Any user

(1) **Synopsis**

```
show hostname
```

(2) **Options**

None

(3) **Examples**

```
# show hostname
xxxxxx.fujitsu.com
```

6.3.19 show ssh

This command displays the current SSH server status (enabled or disabled).

- Privilege: Any user

(1) Synopsis

```
show ssh
```

(2) Options

None

(3) Examples

```
# show ssh  
SSH: disabled
```

6.3.20 show ssh_port

This command displays the port number of the port currently connected to an SSH session.

- Privilege: Any user

(1) Synopsis

```
show ssh_port
```

(2) Options

None

(3) Examples

```
# show ssh_port  
SSH Port Number:22
```

6.3.21 show telnet

This command displays the current Telnet server status (enabled or disabled).

- Privilege: Any user

(1) Synopsis

```
show telnet
```

(2) Options

None

(3) Examples

```
# show telnet  
Telnet: disabled
```

6.3.22 show telnet_port

This command displays the port number of the port currently connected to a Telnet session.

- Privilege: Any user

(1) Synopsis

```
show telnet_port
```

(2) Options

None

(3) Examples

```
# show telnet_port  
Telnet Port Number:23
```

6.3.23 show network

This command displays the following items in the network configuration information that is set for the management LAN interface:

- HOST name
- IP Address
- Netmask
- Gateway Address
- MAC Address
- HTTP status
- HTTP Port Number
- HTTPS status
- HTTPS Port Number
- Telnet status
- Telnet Port Number
- SSH status
- SSH Port Number
- Privilege: Any user

(1) Synopsis

`show network`

(2) Options

None

(3) Examples

```
# show network
XXXXX.fujitsu.com
IP Address:          10.1.2.124
Netmask:             255.255.255.0
Gateway Address:     10.1.2.1
MAC Address:00:AA:    00:12:34:55
HTTP:                disabled
HTTP Port Number:    8081
HTTPS:               disabled
HTTPS Port Number:   432
SSH:                 enabled
SSH Port Number:     22
Telnet:              disabled
Telnet Port Number:  23
```

6.3.24 show remcs

This command displays routing configuration information for the REMCS port of the management LAN.

- Privilege: Users with the Admin or CE privilege

(1) Synopsis

```
show remcs
```

(2) Options

None

(3) Examples

```
#show remcs
IP Address 192.162.1.10
Net Mask   255.255.255.0
Gateway    192.162.1.1
SMTP       10.19.128.90
```

6.3.25 show split_mode

This command displays the split mode settings of the specified SB, IOU, or IOX.

- Privilege: All users

(1) Synopsis

```
show split_mode sb <SB#>  
show split_mode iou <IOU#>
```

(2) Options

<port mask>: specifies whether to allocate an IO Unit port to the A or B side in an IO Unit that is split. This option can be specified only if "enable" is set for split_mode.

If the option is omitted, the default settings for splitting are effective. Specify the port mask as a hexadecimal value having a bit pattern as follows.

1b refers to the A side, and 0b refers to the B side.

bit[1:0]: reserved (0)

bit[2] (port B0)

bit[3] (port B1)

bit[4] (port C0)

bit[5] (port C1)

bit[6] (port D0)

bit[7] (port D1)

Since the actual devices corresponding to the individual bits (ports) vary depending on the IO Unit, this setting is not compatible from one IO Unit to another. Therefore, the setting must be applied carefully.

The following table lists the bit assignments.

Table 6.5 Bit assignments

bit	PRIMEQUEST 580A/ 540A/580/540/480/440	IOU in PRIMEQUEST 520A/520/420	IOX in PRIMEQUEST 520A/520/420
bit[2]	PCI Slot#0, #1	PCIe Slot#0, #1	PCI_Box port#0
bit[3]	PCI Slot#2, #3	-	PCI_Box port#1
bit[4]	PCI_Box port#0	PCIe Slot#2, #3	PCI_Box port#2
bit[5]	PCI_Box port#1	-	PCI_Box port#3
bit[6]	PCI_Box port#2	PCI Slot#4, #5	-
bit[7]	PCI_Box port#3	PCI Slot#6, #7	-

(3) Examples

Displaying the split mode settings of SB#2 (when SB#2 is split)

```
#show split_mode sb 2
enabled
```

Displaying the split mode settings of SB#2 (when SB#2 is not split)

```
#show split_mode sb 2
disabled
```

Displaying the split mode settings of IOU#3 (when IOU#3 is split)

```
#show split_mode iou 3
enabled 0x2A
```

Displaying the split mode settings of IOU#4 (when IOU#4 is not split)

```
#show split_mode iou 4
disabled

#show split_mode iou 3
enabled 0x2A
```

6.3.26 who

This command displays the following information about users who are logged in to the MMB:

- Login name
- Login time of a user
- Remote host name (or IP address of remote host)
A hyphen (-) is displayed when the user logs in via a serial port.
- Connection method (login via Telnet/SSH, MMB Web-UI, or serial port)
 - "Telnet/SSH" is displayed when the user logs in via Telnet/SSH.
 - "WebUI" is displayed when the user logs in via MMB Web-UI.
 - A hyphen (-) is displayed when the user logs in via a serial port.
- Privilege: Any user

(1) Synopsis

who

(2) Options

None

(3) Examples

# who					
Suzuki	2006-05-01	17:30:24	WebUI		xxxx.jp.fujitsu.com
takahashi	2006-05-02	08:45:10	Telnet/SSH		XXX.XXX.XXX.XXX
foo	2006-05-02	20:18:03	-		-
tanaka	2006-05-01	12:20:01	WebUI		XXX.XXX.XXX.XXX

6.3.27 **help**

This command displays help information on the available commands.

- Privilege: Any user

(1) **Synopsis**

help

(2) **Options**

None

(3) **Examples**

None

6.4 Update Commands

The following commands are used to update firmware:

- update MMB
- update BMC
- update EFI
- update SAL

This section describes how to use these commands.

6.4.1 update MMB

This command downloads an MMB firmware file from the specified URL and updates MMB firmware.

The input format for the URL is as follows:

http://host/path/file

ftp://host/path/file

A URL cannot be accessed through a proxy server.

Additional note: The MMB must be rebooted when MMB firmware is updated. To prevent an interruption in MMB service during an update, Fujitsu recommends updating the standby MMB first, making it the active MMB, and then updating the other MMB.

- Privilege: Users with the Admin privilege or CE privilege

(1) Synopsis

- For the PRIMEQUEST 580A/540A/580/540/480/440

```
update MMB {0 | 1 | both} <url> [noverify] [quiet]
```

- For the PRIMEQUEST 520A/520/420

```
update MMB <url> [noverify] [quiet]
```

(2) Options

0: Updates MMB firmware on MMB#0.

1: Updates MMB firmware on MMB#1.

both: Updates MMB firmware on both MMB#0 and #1.

noverify: Disables the verify check.

quiet: Updates the firmware without interactive operation involving the user.

(3) Examples

```
# update MMB 0 http://host/path/mmbfirm001
Downloading an MMB firmware file.....

Current Firmware Version of MMB#0:XXXXX
New Firmware Version:                YYYYY

Are you sure to continue MMB Firmware Update? [Y|N]: Y

Updating MMB Firmware.....

The Firmware update of MMB#0 is successfully completed.

#
```

6.4.2 update BMC

This command downloads a BMC firmware file from the specified URL and updates BMC firmware.

The input format for the URL is as follows:

```
http://host/path/file
ftp://host/path/file
```

A URL cannot be accessed through a proxy server.

Additional note: The BMC must be rebooted when BMC firmware is updated. BMC service is interrupted when the BMC is rebooted. Therefore, Fujitsu recommends shutting down the partition to which the BMC belongs before updating BMC firmware.

- Privilege: Users with the Admin privilege or CE privilege

(1) Synopsis

```
update BMC {all | BMM <BMM#> [{,| -} <BMM#>] | partition
<partition#> [{,| -}
<partition#>]} <url> [noverify] [quiet]
```

* For the PRIMEQUEST 520A/520/420, the IO Unit is designed for IOU#0, and the IOX is for IOU#1.

(2) Options

all: Updates BMC firmware on all BMM boards in the cabinet.

BMM: Updates the BMC firmware on the specified BMM board.

Specify two digits in a BMM number, consisting of an IO Unit# (0 to 7) and a BMM# (0 or 1). For example, IO Unit#3 BMM#1 is represented as 31.

Partition: Updates BMC firmware on the BMM board contained in the specified partition.

noverify: Disables the verify check.

quiet: Updates the firmware without interactive operation involving the user.

(3) Examples

```
# update BMC BMM 00 http://host/path/bmcfirm001
Downloading a BMC firmware file.....

Current Firmware Version of IO Unit#3-BMM#1: XXXXX
New Firmware Version:                      YYYYY

Are you sure to continue BMC Firmware Update? [Y|N]: Y

Updating BMC Firmware.....

The Firmware update of IO Unit#3-BMM#1 is successfully
completed.

#
```

6.4.3 update EFI

This command downloads an EFI firmware file from the specified URL and updates EFI firmware.

The input format for the URL is as follows:

http://host/path/file

ftp://host/path/file

A URL cannot be accessed through a proxy server.

Additional note: The partition containing the EFI must be rebooted when EFI firmware is updated. Therefore, shut down the partition to which the EFI belongs before updating EFI firmware.

- Privilege: Users with the Admin privilege or CE privilege

(1) Synopsis

```
update EFI {all | BMM <BMM#> [{, | -} <BMM#>] | partition  
<partition#> [{, | -}  
<partition#>]} <url> [noverify] [quiet]
```

- * For the PRIMEQUEST 520A/520/420, the IO Unit is designed for IOU#0, and the IOX is for IOU#1.

(2) Options

all: Updates EFI firmware on all BMM boards in the cabinet.

BMM: Updates EFI firmware on the specified BMM board.

Specify two digits in a BMM number, consisting of an IO Unit# (0 to 7) and a BMM# (0 or 1). For example, IO Unit#3 BMM#1 is represented as 31.

Partition: Updates EFI firmware on the BMM board contained in the specified partition.

noverify: Disables the verify check.

quiet: Updates the firmware without interactive operation involving the user.

(3) Examples

```
# update EFI BMM 00 http://host/path/bmcfirm001
Downloading a BMC firmware file.....

Current Firmware Version of IO Unit#3-BMM#1: XXXXX
New Firmware Version:                      YYYYY

Are you sure to continue EFI Firmware Update? [Y|N]: Y

Updating EFI Firmware.....

The Firmware update of IO Unit#3-BMM#1 is successfully
completed.

#
```

6.4.4 update SAL

This command downloads a PAL/SAL firmware file from the specified URL and updates PAL/SAL firmware.

The input format for the URL is as follows:

```
http://host/path/file
ftp://host/path/file
```

A URL cannot be accessed through a proxy server.

Note:

- The partition containing the PAL/SAL must be rebooted when PAL/SAL firmware is updated. Therefore, shut down the partition to which the PAL/SAL belongs before updating PAL/SAL firmware.
- If an update results in a mixture of PAL/SAL firmware products of different versions in a partition, all the PAL/SAL firmware products are automatically restored at partition startup to the versions used before the update. If the partition is being started for the first time, or if the mixture does not include PAL/SAL firmware that was running before the update, the relevant PAL/SAL firmware is replaced with the version of PAL/SAL firmware on the SB that has the smallest SB number in the partition.
- On an SB, to update individually the PAL/SAL firmware products stored on side A and side B that are in different partitions, both of these partitions containing side A and side B must be powered off in advance of the update.
- Privilege: Users with the Admin privilege or CE privilege

(1) Synopsis

```
update SAL {all | sb <SB#> [{, | -} <SB#>] | partition <partition#> [{, | -} <partition#>]} <url> [noverify] [quiet]
```

(2) Options

all: Updates PAL/SAL firmware on all SBs in the cabinet.

sb: Updates PAL/SAL firmware on the specified SB.

Specify two characters in an SB number, consisting of an SB# (0 to 7) and the respective letter for the A or B side. For example, SB#3 B-side is represented as 3b.

Partition: Updates PAL/SAL firmware on the SB contained in the specified partition.

noverify: Disables the verify check.

quiet: Updates the firmware without interactive operation involving the user.

(3) Examples

```
# update SAL sb 0a http://host/path/bmcfirm001
Downloading a PAL/SAL firmware file.....

Current Firmware Version of SB#0-A: XXXXX
New Firmware Version:                YYYYY

Are you sure to continue PAL/SAL Firmware Update? [Y|N]: Y

Updating PAL/SAL Firmware.....

The Firmware update of SB#0-A is successfully completed.

#
```

6.5 Other Commands

In addition to the commands for specifying, displaying, and updating information, the following commands are available:

- connect GSWB
- exit
- passwd
- ping

This section describes how to use these commands.

6.5.1 connect GSWB (PRIMEQUEST 580A/540A/580/540/480/440 only)

This command establishes a connection to the specified GSWB.

CLI input is enabled for the GSWB when a connection is established.

For details on CLI operations concerning the GSWB, see *PRIMEQUEST GSWB User's Manual* (C122-E028EN).

- Privilege: Any user

(1) Synopsis

```
connect GSWB {0 | 1}
```

(2) Options

0: Connects to GSWB#0.

1: Connects to GSWB#1.

(3) Examples

None

6.5.2 **exit**

This command logs you out of the system.

- Privilege: Any user

(1) **Synopsis**

exit

(2) **Options**

None

(3) **Examples**

None

6.5.3 **passwd**

This command changes the password of a specified user.

Users granted the Admin privilege can change the passwords of all users, whereas users without the Admin privilege can only change their own passwords.

If USER is not specified, the command changes the password of the currently logged-in user.

The password change procedure is as follows:

- 1 Enter the current password when prompted.
If the entered password is correct, processing continues. If not, the command rejects the password change requests and exits.
- 2 Enter the new password when prompted.
The entered new password is checked to ensure that it is sufficiently complex. If no problem is found, processing continues. If this check fails, the command rejects the password change request.
- 3 Reenter the new password for confirmation when prompted. If the password entered now matches the password entered previously, the new password becomes effective. If not, the command rejects the password change request.

- Privilege: Any user

(1) Synopsis

```
passwd [USER]
```

(2) Options

USER: Specifies the user name of the user whose password is to be changed.

(3) Examples

```
# passwd
Current password: *****
New password: *****
Re-enter new password: *****
Password changed.
```

6.5.4 ping

This command sends an ICMP echo message to the destination specified in <IP address> or <server name>.

- Privilege: Any user

(1) Synopsis

```
ping [-c <count>] {<IP address>|<server name>}
```

(2) Options

-c count: Ends the processing after sending a specified number of packets.

(3) Examples

None

Part IV PSA

CHAPTER 7 Web-UI Operations

The PSA is a system management application that runs on the OS for each partition on PRIMEQUEST series machines. This chapter describes use of MMB Web-UI for PSA operations by providing a list of menus and describing screens and the operations.

Clicking [Partition] → [Partition #x] → [PSA] menu from the MMB Web-UI navigation bar displays the initial screen of the [Partition Information] window.

Under any of the following conditions, however, the [Partition Information] window is not displayed and the content area displays a message indicating that the partition or PSA is not operating:

- PSA is not installed in the partition.
 - The partition OS is not running.
 - PSA is not running.
 - A management LAN setting is not correct.
- Component status display and background color

The PSA window displays the status of components belonging to the partition. The component status is indicated by text and displayed against a specific background color for easy identification, as shown in the following table.

Table 7.1 Component status and background colors

Status	Background color	Status	Background color
OK	White	Warning	Yellow
Not-present	Gray	Degraded	Yellow
Error	Red	Unknown	White

- Display for items whose values cannot be obtained

The PSA window displays "n.a." for any item whose value is unknown.

Note:

- If the load of Partition is high, the following message may be displayed.
 - [n.a.] when the item value could not be acquired.
 - E_33005 Communication Error. (01:XXXX*1)
 - *1 XXXX: 3301, 3399, or 3400
 - *2 When SUSE™ Linux Enterprise Server 9 SP2 is used, the PSA window may not be displayed even after the load of partition has been lowered. When the window is not displayed, stop and restart PSA by using CLI operations. For how to start and stop PSA, see [Section 8.3, "PSA Start/Stop Command \(y30FJSVpsa\)."](#)
- [Refresh] button

In operation under PSA, the [Refresh] button is displayed in windows with changes. Click this button to reflect the new setting values to the window. When you select [Enable] in the [Refresh Rate] window for the MMB, no automatic refresh will become effective. New information is collected at regular intervals (30 minutes) to ensure that up-to-date values can be displayed. Therefore, the latest information may not be displayed depending on the time the button is clicked. Items on which up-to-date information is retrieved when they are displayed are noted in each description of the window.

Note: If you change the time zone when PSA is starting, PSA's internal local time is not updated. To update the local time, you need to restart PSA.



Mis-operation

If the browser update button and the frame update function in the contextual menu are used in the PSA setting window that is displayed when settings are completed, settings may be made by simply confirming the previously made settings.

Note that, in this case, the settings are made without displaying the corresponding confirmation dialog box.

Note also that a window with the new settings is displayed when the settings have been made. However, to confirm that all settings are correct, Fujitsu recommends displaying the window again using the Refresh button. If no Refresh button is available, the window should be opened again by selecting the corresponding menu once again.

7.1 List of Menus in the Web-UI Window

This section provides a list of PSA menus (the section enclosed by double lines in the following table) for Web-UI. The meanings of the symbols used in the Supported OS column are as follows:

- Supported OS
 - Y: Supported
 - N: Not supported
- Privilege
 - RW: The user can read and write in the window concerned (called a setting privilege user, in this document).
 - RO: The user can only read in the window concerned (called a read privilege user, in this document).
 - N/A: The window and submenu concerned are not displayed.

Table 7.2 Menus

Navigation bar	Partition submenus		PSA submenus		Supported OS		Privilege				Remarks
	Level 1	Level 2	Level 1	Level 2	Linux	Windows	Administrator	Operator	User	CE	
Partition											
:											
Partition#0											Menu that is displayed if at least one board belongs to the partition
:											
PSA											
		Partition Information			Y	Y	RO	RO	RO	RO	Displays a partition outline and OS information. * The displayed items vary from one OS to another.
		CPU			Y	Y	RO	RO	RO	RO	Displays CPU information in a list.
		DIMM			Y	Y	RO	RO	RO	RO	Displays DIMM information in a list.
		PCI Device			Y	Y	RW	RW	RO	RW	Displays PCI device information.
		Network									
		Network Interfaces			Y	Y	RO	RO	RO	RO	Displays the network status.
		Network Routing			Y	N	RO	RO	RO	RO	Displays the routing status.
		Disk Partition			Y	N	RO	RO	RO	RO	Displays disk partition information.
		Hard Disk			Y	Y	RO	RO	RO	RO	Displays hard disk information in a list.
		Process List			Y	N	RW	RW	RO	N/A	Displays process information in a list and sends a signal to the specified process.
		System File			Y	N	RO	RO	RO	N/A	Displays system files.

Navigation bar	Partition submenus		PSA submenus		Supported OS		Privilege				Remarks
	Level 1	Level 2	Level 1	Level 2	Linux	Windows	Administrator	Operator	User	CE	
	Inventory										
	Hardware Inventory				Y	Y	RO	RO	RO	RO	Displays a hardware inventory list.
	Software Inventory				Y	N	RO	RO	RO	RO	Displays the OS version, and displays and downloads the RPM package information.
	Agent Log				Y	Y	RO	RO	RO	RO	Displays an agent log list.
	SEL				Y	Y	RO	RO	RO	RO	Downloads a system event log (binary format).
	Export List				Y	Y	RO	RO	RO	RO	Saves the information stored by PSA, in CSV format.
	Setup										
	Watchdog				Y	Y	RW	RW	RO	RO	Sets up Watchdog monitoring.
	S.M.A.R.T.				Y	Y	RW	RW	RO	RO	Sets up S.M.A.R.T. monitoring.
	Expansion File Unit				Y	Y	RW	RW	RO	RW	Displays information on the expansion file unit(s). This menu is displayed when one or more expansion file units are connected to a partition.
	Partition#1						Same as Partition#0				
	:										

7.2 [Partition Information] Window

The [Partition Information] window displays a partition outline and OS information.

Remarks: This window displays items that vary depending on the OS installed in the partition.

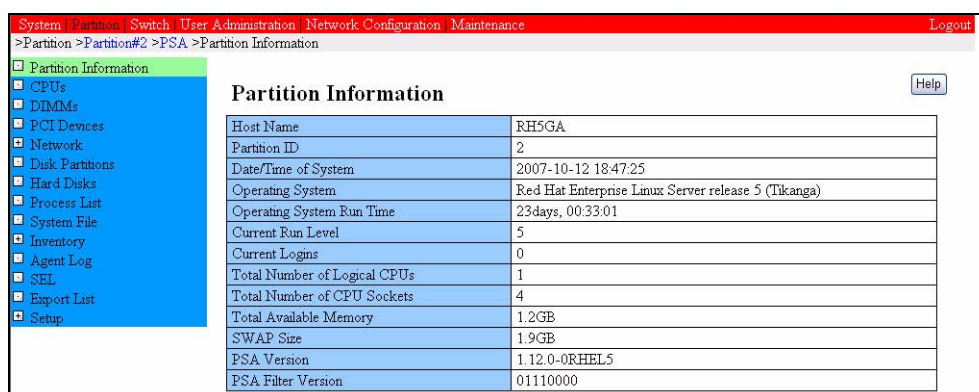


Figure 7.1 [Partition Information] window (Linux)

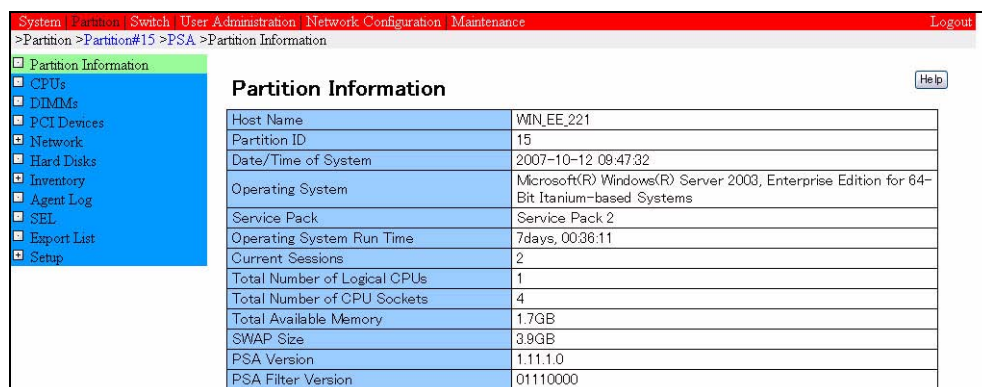


Figure 7.2 [Partition Information] window (Windows)

Table 7.3 Displayed items in the [Partition Information] window

Item	Description
Host Name	Host name that is set by the OS
Partition ID	Partition ID
Date/Time of System	System time in the partition (local time), as follows: yyyy-MM-dd HH:mm:ss * The latest information is retrieved when this window is displayed.
Operating System	OS name and version
Service Pack * Windows version only	Displays the OS service pack.
Operating System Run Time	OS operating time * The latest information is retrieved when this window is displayed.
Current Run Level * Only Linux supported	OS run level, ranging from Run Level 1 to 5 * The latest information is retrieved when this window is displayed.
Current Logins * Only Linux supported	Number of currently logged-in users * The latest information is retrieved when this window is displayed.
Current Sessions * Only Windows supported	Displays the number of current sessions. * The latest information is retrieved when this window is displayed.
Total Number of Logical CPUs	Number of logical CPUs recognized by the OS
Total Number of CPU Sockets	Number of physical CPU sockets
Total Available Memory	If the SWAP size in the partition is up to 1023 MB, it is displayed in MB units. If it is at least 1024 MB, it is displayed in GB units (rounded down to one decimal place).
SWAP Size	If the SWAP size in the partition is up to 1023 MB, it is displayed in MB units. If it is at least 1024 MB, it is displayed in GB units (rounded down to one decimal place). * In Windows Server 2008, if the virtual memory size is managed automatically, a hyphen (-) is displayed.
PSA Version	PSA version
PSA Filter Version	Version of the filter definition for the PSA hardware error monitoring function

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Partition Information]

(2) GUI operation

None

7.3 [CPUs] Window

The [CPUs] window displays in list form information on the CPUs belonging to the partition.

Remarks: Uninstalled CPUs are displayed dimmed.

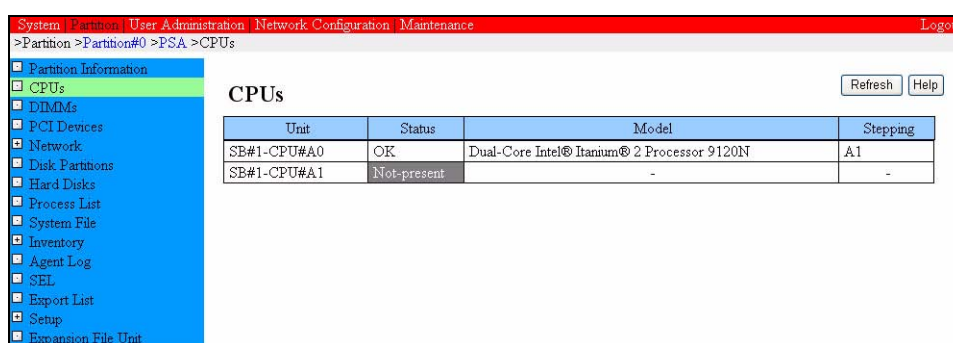


Figure 7.3 [CPUs] window (PSA version 1.13.0 or earlier)

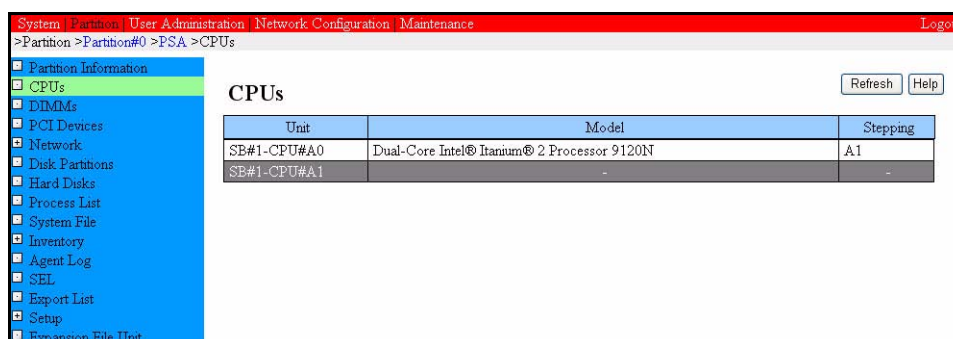


Figure 7.4 [CPUs] window (PSA version 1.13.1 or later)

Table 7.4 Displayed items in the [CPUs] window

Item	Description
Unit	CPU identification names.
Model	CPU model. If [CPU] is "Not-present" (not installed), a hyphen (-) is displayed.
Stepping	Displays CPU stepping. If [CPU] is "Not-present" (not installed), a hyphen (-) is displayed.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [CPUs]

(2) GUI operation

None

7.4 [DIMMs] Window

The [DIMMs] window displays in list form information on the DIMMs belonging to the partition.

Remarks: Uninstalled DIMMs are displayed dimmed.

System Partition User Administration Network Configuration Maintenance Logout						
>Partition>Partition#0>PSA>DIMMs						
<input type="checkbox"/> Partition Information <input type="checkbox"/> CPUs <input checked="" type="checkbox"/> DIMMs <input type="checkbox"/> PCI Devices <input type="checkbox"/> Network <input type="checkbox"/> Disk Partitions <input type="checkbox"/> Hard Disks <input type="checkbox"/> Process List <input type="checkbox"/> System File <input type="checkbox"/> Inventory <input type="checkbox"/> Agent Log <input type="checkbox"/> SEL <input type="checkbox"/> Export List <input type="checkbox"/> Setup <input type="checkbox"/> Expansion File Unit	DIMMs Refresh Help					
Unit	Status	Size	Rank	Data Rate	Part Number	Serial Number
SB#1-DIMM#0A0	OK	1.0GB	1	DDR2-533	EBE10RD4AGFA-5C-E	2229C0D1
SB#1-DIMM#0A1	Not-present	-	-	-	-	-
SB#1-DIMM#0B0	Not-present	-	-	-	-	-
SB#1-DIMM#0B1	Not-present	-	-	-	-	-
SB#1-DIMM#1A0	OK	1.0GB	1	DDR2-533	EBE10RD4AGFA-5C-E	2229C014
SB#1-DIMM#1A1	Not-present	-	-	-	-	-
SB#1-DIMM#1B0	Not-present	-	-	-	-	-

Figure 7.5 [DIMMs] window (PSA version 1.13.0 or earlier)

System Partition User Administration Network Configuration Maintenance Logout					
>Partition>Partition#0>PSA>DIMMs					
<input type="checkbox"/> Partition Information <input type="checkbox"/> CPUs <input checked="" type="checkbox"/> DIMMs <input type="checkbox"/> PCI Devices <input type="checkbox"/> Network <input type="checkbox"/> Disk Partitions <input type="checkbox"/> Hard Disks <input type="checkbox"/> Process List <input type="checkbox"/> System File <input type="checkbox"/> Inventory <input type="checkbox"/> Agent Log <input type="checkbox"/> SEL <input type="checkbox"/> Export List <input type="checkbox"/> Setup <input type="checkbox"/> Expansion File Unit	DIMMs Refresh Help				
Unit	Size	Rank	Data Rate	Part Number	Serial Number
SB#1-DIMM#0A0	1.0GB	1	DDR2-533	EBE10RD4AGFA-5C-E	2229C0D1
SB#1-DIMM#0A1	-	-	-	-	-
SB#1-DIMM#0B0	-	-	-	-	-
SB#1-DIMM#0B1	-	-	-	-	-
SB#1-DIMM#1A0	1.0GB	1	DDR2-533	EBE10RD4AGFA-5C-E	2229C014
SB#1-DIMM#1A1	-	-	-	-	-
SB#1-DIMM#1B0	-	-	-	-	-

Figure 7.6 [DIMMs] window (PSA version 1.13.1 or later)

Table 7.5 Displayed items in the [DIMMs] window

Item	Description
Unit	DIMM identification names.
Size	DIMM size If [DIMM] is [Not-present] (not installed), a hyphen (-) is displayed.
Rank	DIMM rank number If [DIMM] is [Not-present] (not installed), a hyphen (-) is displayed.
Data Rate	DIMM data rate. If [DIMM] is "Not-present" (not installed), a hyphen (-) is displayed.
Part Number	DIMM part number. If [DIMM] is "Not-present" (not installed), a hyphen (-) is displayed.
Serial Number	DIMM serial number. If [DIMM] is "Not-present" (not installed), a hyphen (-) is displayed.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [DIMMs]

(2) GUI operation

None

7.5 [PCI Devices] Window

The [PCI Devices] window displays information about connected PCI devices in each partition.



Unit	Status	Device Name	Device Class (hex)	Seg/Bus/DevFunc
IOU#5-BMMH#0-NIC#1	OK	Intel Corporation 825778/9 [Ethernet Pro 100]	020000	0/ 1/ 0/ 0
IOU#5-BMMH#0-NIC#0	OK	Intel Corporation 82562ET/EZ/GT/GZ - PRO/100 VE (LOM) Ethernet Controller	020000	0/ 1/ 8/ 0
IOU#5-GbE#0-FUNC#0	OK	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	020000	0/ 163/ 1/ 0
IOU#5-GbE#0-FUNC#1	OK	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	020000	0/ 163/ 1/ 1
IOU#5-SCSI#0-FUNC#0	OK	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	010000	0/ 164/ 1/ 0
IOU#5-SCSI#0-FUNC#1	OK	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	010000	0/ 164/ 1/ 1

Figure 7.7 [PCI Devices] window

The [PCI Devices] window displays a list of PCI devices in a partition. Clicking a [Unit] item displays details about the corresponding device. Information is displayed for each PCI card function. If the PCI card is a multi-function PCI card, multiple lines of device information are displayed for a single unit.

When PCI cards are added or removed, it takes about 3 minutes for the information to be reflected on the window.

Table 7.6 Displayed items in the [PCI Devices] window

Item	Description
Unit	PCI device identification names.
Status	Integrated status of the hardware status of the PCI device and status of individual subordinate devices connected to it (and this includes the predicted fault status): <ul style="list-style-type: none">• OK: Normally operating.• Error: Serious problem such as a hardware failure• Warning: Warning status (A problem may occur.)• Unknown: Unknown
Device Name	Device name that combines a vendor name and device name In Windows: "SCSI Controllers" and other such names are displayed for newly added devices after a hardware configuration change. After thirty minutes or so, however, these names are changed to device names recognized by the OS.
Device Class	Device class ID (in hexadecimal)
Seg/Bus/Dev/Func	The following numbers: <ul style="list-style-type: none">• Segment number• Bus number• Device number• Function number

Table 7.7 Buttons in the [PCI Devices] window

Button	Description
Each box containing a [Unit] item	Click the box containing a [Unit] item to display the details window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [PCI Devices]

(2) GUI operation

- 1 Click a [Unit] item.
 - If DeviceClass=020000, the [Ethernet controller] window is displayed.
 - If DeviceClass=010000, the [Storage Controller] window is displayed.
 - If DeviceClass=0C0400, the [Fibre Channel] window is displayed.
 - For DeviceClass other than 020000, 010000, and 0C0400, the [Other PCI Device] window is displayed.
- 2 Click the [Return] button in the displayed window.
The [PCI Devices] window is displayed again.

7.5.1 [Ethernet Controller] window

If a [Device Class] item in the [PCI Devices] window is "020000" (Ethernet controller), the [Ethernet Controller] window displays Ethernet controller information.

A setting privilege user can clear the status by clicking the [Status Clear] button.

System Partition Switch User Administration Network Configuration Maintenance Logout

>Partition >Partition#2 >PSA >PCI Devices

Partition Information
CPUs
DIMMs
PCI Devices
Network
Disk Partitions
Hard Disks
Process List
System File
Inventory
Agent Log
SEL
Export List
Setup

Ethernet Controller

Refresh Help

Select a status check box and click the Status Clear button to clear status.

PCI Device Information

Unit	IOU#5-BMMH#0-NIC#1
Status	<input type="checkbox"/> OK
Device Name	Intel Corporation 82557/8/9 [Ethernet Pro 100]
Device Class(hex)	020000
Seg/Bus/Dev/Func	0/1/0/0
Vendor ID(hex)	8086
Device ID(hex)	1229
PCI Device Version(hex)	10
MAC Address	00:0B:5D:6E:42:01
Speed	100Mbps

Network Interface Information

Interface Name	IP Address	IP Subnet Mask
eth0	-	-

MAC Statistics

[Transmit Statistics]		[Receive Statistics]	
Total Packets	408	Total Packets	2645093
Total Bytes	30885	Total Bytes	216254549
Deferred Xmits	0	FCS Errors	0
Single Collisions	0	Alignment Errors	0
Multiple Collisions	0	Frame Too Long	0
Excessive Collisions	0	MAC Receive Errors	0
Carrier Sense Errors	0		
Late Collision Errors	0		
SQE Test Errors	0		
MAC Xmit Errors	0		

Status Clear Return

Figure 7.8 [Ethernet Controller] window

Table 7.8 Displayed and setting items in the [Ethernet Controller] window

Item	Description
PCI Device Information	
Unit	Ethernet controller identification name
Status	<p>Ethernet controller status:</p> <ul style="list-style-type: none"> • OK: Operating normally • Error: Serious problem such as a hardware failure • Warning: Warning status (A problem may occur.) • Unknown: Unknown <p>Check the [Error] or [Warning] status check box to clear the status. Additional note: When the check box is checked, the status is not cleared until the [Status Clear] button is clicked.</p>
Device Name	<p>Device name that combines a vendor name and device name</p> <p>In Windows: "Ethernet Controller" and other such names are displayed for newly added devices after a hardware configuration change. After thirty minutes or so, however, these names are changed to device names recognized by the OS.</p>
Device Class	Device class ID (in hexadecimal)
Seg/Bus/Dev/Func	<p>The following numbers:</p> <ul style="list-style-type: none"> • Segment number • Bus number • Device number • Function number
Vendor ID	Vendor ID (in hexadecimal)
Device ID	Device ID (in hexadecimal)
PCI Device Version	PCI device version number
MAC Address	<p>MAC address</p> <ul style="list-style-type: none"> • The window may display "n.a." if it is opened while PSA's internal information is being updated. The use of the Refresh button refreshes the window to display the correct information. • The window displays "n.a." if the driver is not loaded when PSA starts.
Speed	<p>Network speed</p> <ul style="list-style-type: none"> • The window may display "n.a." if it is opened while PSA's internal information is being updated. The use of the Refresh button refreshes the window to display the correct information. • The window displays "n.a." if the driver is not loaded. <p>* The latest information is retrieved when this window is displayed when PSA starts.</p>

Network Interface Information

Remarks: Network-related information may not be supplied depending on the type or status of the OS or a driver. A hyphen "-" is displayed for any of this information that is not supplied.

Item	Description
Interface Name	Names of all interfaces allocated to the NIC (and this includes virtual IPs)
IP Address	The IP address of each interface is displayed.
IP Subnet Mask	The subnet mask of each interface is displayed.

MAC Statistics (Transmit Statistics)

* The latest information is retrieved when this window is displayed.

Notes:

- If the network connection is disabled by the Windows system, MAC Statistics information cannot be retrieved and zeros are displayed for all items.
- If the driver is not loaded when PSA starts, zeros are displayed for all items.

Item	Description
Total Packets	Number of packets passed using IP for transmission with a transport layer protocol (e.g., TCP or UDP). This does not include packets that were only transferred.
Total Bytes	Number of transmitted bytes
Deferred Xmit	Number of packets that waited in the first transmission attempt because the line was busy. Network congestion causes transmission delays. Currently, 0 is displayed for this item as a fixed setting.
Single Collisions	Number of packets that were successfully transmitted after exactly one collision. [Single Collisions] indicates network congestion. Currently, 0 is displayed for this item as a fixed setting.
Multiple Collisions	Number of packets that were successfully transmitted after several collisions. This does not include the packets already recorded in [Single Collisions]. [Multiple Collisions] indicates network congestion. Currently, 0 is displayed for this item as a fixed setting.
Excessive Collisions	Number of packets whose transmission failed because the maximum number of collisions was exceeded. The cause is extremely serious network congestion.
Carrier Sense Errors	Number of times that the carrier sense conditions were violated
Late Collision Errors	Number of packets for which no collision was detected until data exceeding 512 bits was transmitted. This indicates that the transmission route is too long and that the subsequent signal propagation time is too long, resulting in an overlap. Currently, 0 is displayed for this item as a fixed setting.
SQE Test Errors	Number of times that an SQE test error occurs

Item	Description
MAC Xmit Errors	Number of packets that could not be properly transmitted because of an internal error in the MAC layer. This does not include the packets already recorded in [Late Collision Errors], [Excessive Collisions], and [Carrier Sense Errors].

MAC Statistics (Receive Statistics)

* The latest information is retrieved when this window is displayed.

Notes:

- If the network connection is disabled by the Windows system, MAC Statistics information cannot be retrieved and zeros are displayed for all items.
- If the driver is not loaded when PSA starts, MAC Statistics information cannot be retrieved and zeros are displayed for all items.

Item	Description
Total Packets	Total number of IP datagrams received from all other stations. This includes the number of error datagrams.
Total Bytes	Number of bytes received
FCS Errors	Number of packets in which an FCS test detected an error. The cause is low transmission quality.
Alignment Errors	Number of packets received by the selected interface and found to have an incorrect length because the number of bytes is not an integer. The cause is low transmission quality. Currently, 0 is displayed for this item as a fixed setting.
Frame Too Long	Number of packets received by the selected interface and found to be longer than the maximum packet length (1,518 bytes)
MAC Receive Errors	Number of packets that could not be properly received because of an internal error in the MAC layer

Table 7.9 Buttons in the [Ethernet Controller] window

Button	Description
Status Clear	The [Status Clear] button is displayed only for a setting privilege user. Check the [Status] check box in [PCI Device Information], click the [Status Clear] button, and the [Confirm Settings] dialog box opens. Click the [OK] button in the [Confirm Settings] dialog box to clear the status of the Ethernet controller. If the notification suppression function is active to suppress mail/REMCS/SNMPtrap notification, this button deactivates the notification suppression function.
Return	Click the [Return] button to return to the previous window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [PCI Devices] → [Unit]

[Partition] → [Partition#x] → [PSA] → [Network] → [Network Interfaces] → [Unit]

(2) GUI operation

- Clearing the status of the Ethernet controller
 - 1 Check the [Status] check box, and click the [Status Clear] button.
The [Confirm Settings] dialog box opens.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.
The status of the Ethernet controller is cleared.
 - 3 Click the [Return] button.
Return to the previous window.
- Leaving the status of the Ethernet controller as is
 - 1 Click the [Return] button.
Return to the previous window.

(3) Error messages

If the system ends abnormally, any of the following messages is displayed in a dialog box.

Message	Meaning	Response
Error: Status Clear Error : ErrorCode=****	Status clearing failed. [ErrorCode] 3309: PCI Status Clear	If using Refresh and then repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.5.2 [Storage Controller] window

If a [Device Class] item in the [PCI Devices] window is "010000" (SCSI storage controller), the [Storage Controller] window displays storage controller information.

A setting privilege user can clear the status by clicking the [Status Clear] button.

If devices are added to or removed from the group of devices connected to the storage controller, a maximum of three minutes will be required to refresh the display to reflect the change.

Note:

- If a disk under GDS/PSDM control is added or removed during OS operation, the values displayed for [Device Type] and [Disk Capacity] in the [Storage Controller] window are not updated. To update them, PSA must be restarted or the following PSA command must be executed (the following command is supported only in the Linux version of PSA):

```
/opt/FJSPsa/sh/force_search.sh -a
```

- If no device is connected to the storage controller, only the title row is displayed.

System Partition Switch User Administration Network Configuration Maintenance Logout

>Partition >Partition#2 >PSA >PCI Devices

Storage Controller Refresh Help

Select a status check box and click the Status Clear button to clear status.

PCI Device Information

Unit	IOU#5-SCSI#0-FUNC#0
Status	<input type="checkbox"/> OK
Device Name	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI
Device Class(hex)	010000
Seg/Bus/Dev/Func	0/164/1/0
Vendor ID(hex)	1000
Device ID(hex)	0030
PCI Device Version(hex)	8

Information about devices connected to controller

Unit	Status	Device Type	Device Vendor	Device Name	Channel/TargetID/LUN	Disk Capacity
		Disk Name	Revision	Serial No.		
IOU#5-HDD#1	<input type="checkbox"/> OK	Direct Access	FUJITSU	MAT3073NC	0/1/0	68.4GB
		/dev/sda	3703	AAR4P5 E0073C		
IOU#5-SCSI#0-FUNC#0-CHAN#0-ID#6	<input type="checkbox"/> OK	Processor	QLogic	GEM359	0/6/0	-
		-	0204	-		

Status Clear Select All Release All Return

Figure 7.9 [Storage controller] window

Table 7.10 Displayed and setting items in the [Storage Controller] window

Item	Description
PCI Device Information	
Unit	SCSI storage controller identification name
Status	Hardware status of the storage controller (but not including the status of any subordinate device connected to it). <ul style="list-style-type: none">• OK: Operating normally• Error: Serious problem such as a hardware failure• Warning: Warning status (A problem may occur.)• Unknown: Unknown Check the [Error] or [Warning] status check box to clear the status. Additional note: Check the check box and then click the [Status Clear] button to clear the status.
Device Name	Device name that combines a vendor name and device name In Windows: "SCSI Controllers" and other such names are displayed for newly added devices after a hardware configuration change. After thirty minutes or so, however, these names are changed to device names recognized by the OS.
Device Class	Device class ID (in hexadecimal)
Seg/Bus/Dev/Func	The following numbers: <ul style="list-style-type: none">• Segment number• Bus number• Device number• Function number
Vendor ID	Vendor ID (in hexadecimal)
Device ID	Device ID (in hexadecimal)
PCI Device Version	PCI device version number (in hexadecimal)
Expansion File Unit	
* This item is displayed when one or more expansion file units are connected to a partition.	
Unit	Displays the identification name of the controller of an expansion file unit at the connection destination.
Information about devices connected to controller	
Unit	Displays the identification name of a device connected to the storage controller.
Status	Integrated status of the hardware status and predicted fault status of individual devices connected to the storage controller: <ul style="list-style-type: none">• OK: Operating normally• Error: Serious problem such as a hardware failure• Warning: Warning status (A problem may occur. This includes S.M.A.R.T.)• Unknown: Unknown Check the check box to clear the status. Additional note: Check the check box and then click the [Status Clear] button to clear the status.

Item	Description
Device Type	<p>Device type:</p> <ul style="list-style-type: none"> • Direct Access • Sequential Access • Printer • Processor • WORM • CD-ROM • Scanner • Optical Device • Medium Changer • Communications • Unknown • Enclosure <p>Linux:</p> <ul style="list-style-type: none"> • Direct Access (GDS) <p>Windows:</p> <ul style="list-style-type: none"> • Direct Access (PSDM) <p>* Linux The device type is displayed as "n.a." for any device other than the above.</p> <p>* Windows The device type is displayed as "Unknown" for any device other than the above (such as RBC/CardReader/Bridge/Other).</p>
Disk Name	<p>Disk device name.</p> <p>If the device is not a disk (including GDS or PSDM), a hyphen (-) is displayed.</p>
Device Vendor	Device vendor
Revision	Device revision number
Device Name	Device model name
Serial No	Device serial number. If the device is not a disk (including GDS), a hyphen (-) is displayed.
Channel/TargetID/LUN	SCSI channel, SCSI target ID, and SCSI logical unit number of the device
Disk Capacity	<p>If the device is a disk, its capacity is displayed in MB units if the capacity is up to 1023 MB, or in GB units (rounded down to one decimal place) if the capacity is at least 1024 MB. If the device is not a disk or it is a GDS or PSDM, a hyphen (-) is displayed. Since disk capacities are displayed on the assumption that 1 GB = 1024 MB = 1024 x 1024 KB, they are slightly smaller than on catalogs.</p>

Table 7.11 Buttons in the [Storage Controller] window

Button	Description
Status Clear	The [Status Clear] button is displayed only for a setting privilege user. Check the [Status] check box in [PCI Device Information] or [Information about devices connected to controller], click the [Status Clear] button, and the [Confirm Settings] dialog box opens. Click the [OK] button in the [Confirm Settings] dialog box to clear the hardware status of the storage controller or a device connected to the storage controller. If the notification suppression function is active to suppress mail/REMCS/SNMPtrap notification, this button deactivates the notification suppression function.
Select All	The [Select All] button is displayed only for a setting privilege user. Click the [All Select] button to check all check boxes.
Release All	The [Release All] button is displayed only for a setting privilege user. Click the [Release All] button to uncheck all check boxes.
Return	Click the [Return] button to return to the previous window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [PCI Devices] → [Unit]

[Partition] → [Partition#x] → [PSA] → [Expansion File Unit] → [Unit] → [SDU#x] → [CTRL#x]

(2) GUI operation

- Clearing the hardware status of the storage controller
 - 1 Check the [Status] check box in [PCI Device Information] (see the Remark 1 below), and click the [Status Clear] button.
The [Confirm Settings] dialog box opens.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.
The hardware status of the storage controller is cleared.
 - 3 Click the [Return] button.
Return to the previous window.
- Clearing the hardware status of a device connected to the storage controller
 - 1 Check the [Status] check box in [Information about devices connected to controller] (see the Remark 1 below), and click the [Status Clear] button.
The [Confirm Settings] dialog box opens.

- 2 Click the [OK] button in the [Confirm Settings] dialog box.
The hardware status of the device connected to the storage controller is cleared.
 - 3 Click the [Return] button.
Return to the previous window.
- Not clearing the storage controller status
 - 1 Click the [Return] button.
Return to the previous window.

Remarks:

- 1 Clicking the [Select All] button selects all check boxes, and clicking the [Release All] button clears all check boxes.
- 2 Up to 500 status items can be cleared at a time. If the [Status Clear] button is clicked when more than 500 status items are selected, a dialog box opens to ask for confirmation to clear the first 500 status items.

(3) Error messages

If the system ends abnormally, any of the following messages is displayed in a dialog box.

Message	Meaning	Response
Error: Status Clear Error : ErrorCode=****	Status clearing failed. [ErrorCode] 3309: PCI Status Clear 3310: SMART Status Clear 3311: SCSI Status Clear	If using Refresh and then repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.5.3 [Fibre Channel] window

The [Fibre Channel] window displays fibre channel information when the [Device Class] item in the [PCI Devices] window is [0C0400] (Fibre Channel).

A user with setting privilege can clear the status by using the [Status Clear] button.

When the number of devices connected to the fibre channel is increased or decreased, it takes up to three minutes until the change is reflected in the screen display.

Notes:

- Information on a DISK in the ETERNUS multi-path driver environment is displayed under a PCI device with a multi-path specified. In Linux, [Serial No.], [Disk Capacity], and [Disk Name] are displayed using accurate values only under a PCI device (normally the device with the smallest bus number) with a multi-path specified. In Windows, [Serial No.], [Disk Capacity], and [Disk Name] are displayed as "n.a."
- When the number of DISKs under GDS control is increased or decreased while running the OS, the [Device Type] and [Disk Capacity] items in the [Fibre Channel] window are not updated. To update these items, it is necessary to reboot the PSA or manually execute the following PSA command.

```
/opt/FJSVpsa/sh/force_search.sh -a
```

- When the Power Path of an EMC is used, [Disk Name], [Serial No.], and [Disk Capacity] may be displayed as "n.a."
- When a device is not connected to the fibre channel, only the title row is displayed.

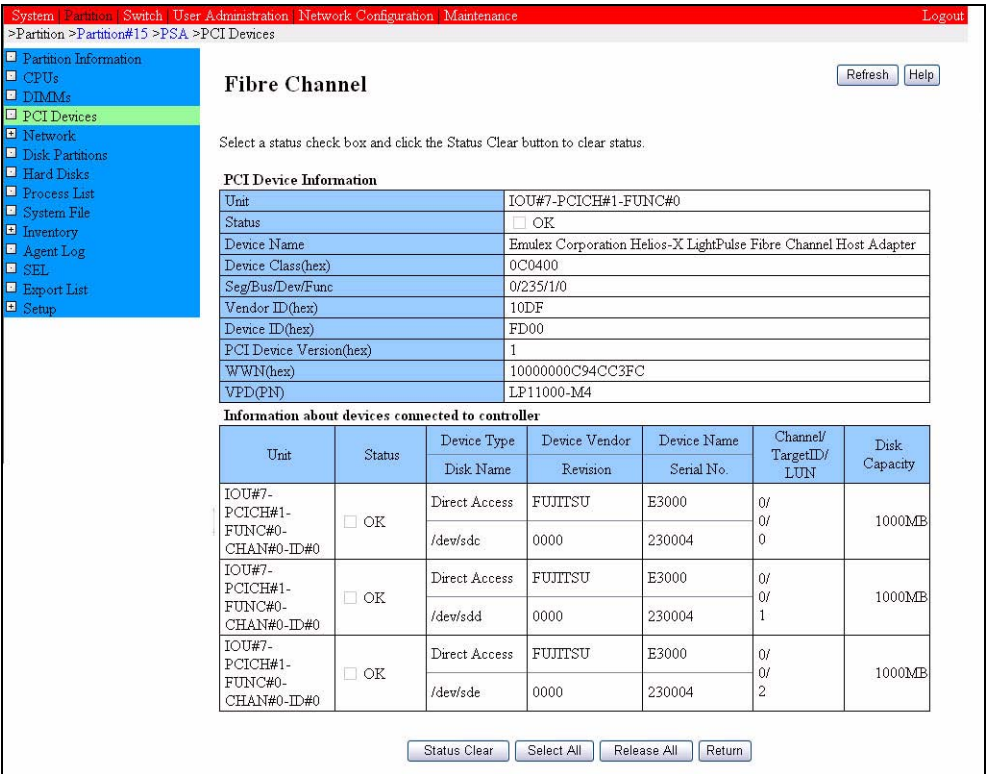


Figure 7.10 Fibre Channel window

Table 7.12 Display and setting items of [Fibre Channel] window

Item	Explanation
PCI Device Information	
Unit	Displays the identification name of a fibre channel.
Status	<p>Displays the hardware status of the fibre channel (excluding the status of a device connected under the hardware).</p> <ul style="list-style-type: none">• OK: Normal• Error: An important problem such as a hardware error is detected.• Warning: Warning status (A problem may occur in the future.)• Unknown: Uncertain <p>If [Error] or [Warning] is displayed, clear it by selecting the check box.</p> <p>Remarks: To clear the status, select the check box and click the [Status Clear] button.</p>
Device Name	<p>Displays a device name including a vendor name.</p> <p>Windows: A device, newly added after changing the hardware configuration, is displayed as "Fibre Channel," but is updated about 30 minutes later using a device name recognized by the OS.</p>
Device Class	Displays a device class ID (hexadecimal).
Seg/Bus/Dev/Func	<p>Displays the following numbers:</p> <ul style="list-style-type: none">• Segment No.• Path No.• Device No.• Function No.
Vendor ID	Displays a vendor ID (hexadecimal).
Device ID	Displays a device ID (hexadecimal).
PCI Device Version	Displays the version of a PCI device (hexadecimal).
WWN	<p>Acronym of World Wide Name</p> <p>64-bit address specifically assigned to a fibre channel switch and HBA (hexadecimal)</p>
VPD(PN)	<p>Acronym of Vital Product Data</p> <p>Displays the option information of PCI functions.</p>
Information about devices connected to controller	
Unit	Displays the identification name of a device connected to the fibre channel.

Item	Explanation
Status	<p>Displays a combination of the hardware status of a device connected to the fibre channel and the predictive monitoring status of the device.</p> <ul style="list-style-type: none"> • OK: Normal • Warning: Warning status (A problem such as S.M.A.R.T. may occur in the future.) • Unknown: Uncertain • To clear the status, select the check box. <p>Remarks: To clear the status, select the check box and click the [Status Clear] button.</p>
Device Type	<p>Displays a device type.</p> <ul style="list-style-type: none"> • Direct Access • Sequential Access • Printer • Processor • WORM • CD-ROM • Scanner • Optical Device • Medium Changer • Communications • Unknown • Enclosure • Direct Access (GDS) <p>* In Linux, a device other than indicated above is displayed as "n.a."</p> <p>* In Windows, a device other than indicated above (such as RBC/CardReader/Bridge/Other) is displayed as "Unknown".</p>
Disk Name	<p>Displays the name of a disk.</p> <p>For a non-disk device (such as a GDS), a hyphen [-] is displayed.</p>
Device Vendor	Displays the vendor of a device.
Revision	Displays the version of a device.
Device Name	Displays the model name of a device.

Item	Explanation
Serial No	Displays the serial number of a device. For a non-disk device (such as GDS), a hyphen [-] is displayed.
Channel/TargetID/LUN	Displays the SCSI channel, SCSI target ID, and SCSI logical unit number of a device.
Disk Capacity	When the device is a disk, the disk capacity is displayed. Up to 1,023 MB is displayed in MBs, and 1,024 MB and more are displayed in GBs (down to the first decimal place; the second and later decimal places are ignored.) For a non-disk device and GDS, a hyphen [-] is displayed. Because the disk capacity is displayed, assuming that 1 GB = 1,024 MB = 1,024 x 1,024 KB, its value is slightly smaller than the catalog value.

Table 7.13 Buttons in [Fibre Channel] window

Item	Explanation
Status Clear	The [Status Clear] button is displayed only for setting privilege users. To display the [Confirm Settings] dialog box, select the check box of the [Status] item of [PCI Device Information] or [Information about devices connected to controller], and click the [Status Clear] button. To clear the hardware status of a fibre channel or that of a device connected to the fibre channel, click the [OK] button in the [Confirm Settings] dialog box. When mail/REMCS/SNMPtrap notification is suppressed by a notification suppression function, notification suppression is also canceled.
Select All	The [Select All] button is displayed only for setting privilege users. Click the [Select All] button to select all check boxes.
Release All	The [Release All] button is displayed only for setting privilege users. Click the [Release All] button to release all check boxes.
Return	Click the [Return] button to return to the [PCI Devices] window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [PCI Devices] → [Unit]

(2) Window operation

- Clearing the hardware status of fibre channel
 - 1 Select the check box of the [Status] item of [PCI Device Information] (see Remark 1 below) and click the [Status Clear] button.
The [Confirm Settings] dialog box is then displayed.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.
The hardware status of the fibre channel is then cleared.
 - 3 Click the [Return] button.
The [PCI Devices] window is then displayed.
- Clearing the hardware status of a device connected to fibre channel
 - 1 Select the check box of the [Status] item of [Information about devices connected to controller] (see Remark 1 below) and click the [Status Clear] button.
The [Confirm Settings] dialog box is then displayed.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.
The hardware status of the device connected to the fibre channel is then cleared.
 - 3 Click the [Return] button.
The [PCI Devices] window is then displayed.
- Not clearing the status of fibre channel
 - 1 Click the [Return] button.
The [PCI Devices] window is then displayed.

Remarks:

- Click the [Select All] button to select all check boxes. Click the [Release All] button to release all check boxes.
- Up to 500 statuses can be cleared at a time. If the [Status Clear] button is clicked with more than 500 statuses selected, only the first 500 statuses are cleared, along with a dialog box displayed to that effect.

(3) Error messages

If an ABEND occurs, the following message is displayed in a dialog box:

Message	Meaning	Response
Error: Status Clear Error : ErrorCode=****	Status Clear failed. [ErrorCode] 3309: PCI Status Clear error 3310: SMART Status Clear error 3311: SCSI Status Clear error	If the problem cannot be resolved by refreshing the window and operating it again, contact the system administrator or a Fujitsu-certified service engineer.

7.5.4 [Other PCI Device] window

For a [Device Class] item in the [PCI Devices] window other than "020000" (Ethernet controller), "010000" (SCSI storage controller), and "0C0400" (Fibre Channel), the [Other PCI Device] window displays PCI device information.

A setting privilege user can clear the status by clicking the [Status Clear] button.

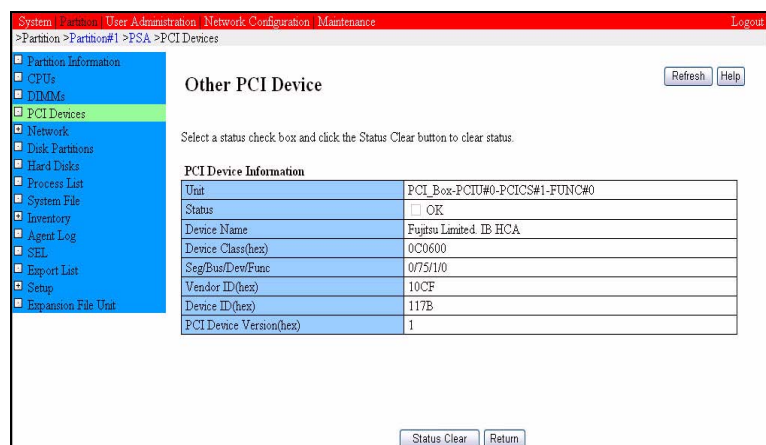


Figure 7.11 [Other PCI Device] window

Table 7.14 Displayed and setting items in the [Other PCI Device] window

Item	Description
PCI Device Information	
Unit	PCI device identification name
Status	PCI device status <ul style="list-style-type: none">• OK: Operating normally• Error: Serious problem such as a hardware failure• Warning: Warning status (A problem may occur.)• Unknown: Unknown Check the [Error] or [Warning] status check box to clear the status. Additional note: Check the check box and click the [Status Clear] button to clear the status.
Device Name	Device name that combines a vendor name and device name
Device Class	Device class ID (in hexadecimal)
Seg/Bus/Dev/Func	The following numbers: <ul style="list-style-type: none">• Segment number• Bus number• Device number• Function number
Vendor ID	Vendor ID (in hexadecimal)
Device ID	Device ID (in hexadecimal)
PCI Device Version	PCI device version number (in hexadecimal)

Table 7.15 Buttons in the [Other PCI Device] window

Button	Description
Status Clear	The [Status Clear] button is displayed only for the setting privilege user. Check the [Status] check box in [PCI Device Information] and click the [Status Clear] button. The [Confirm Settings] dialog box opens. Click the [OK] button in the [Confirm Settings] dialog box to clear the PCI device status. If the notification suppression function is active to suppress mail/REMCS/SNMPtrap notification, this button deactivates the notification suppression function.
Return	Click the [Return] button to return to the [PCI Devices] window.

(1) Menu operation

[Partition] → [Partition #X] → [PSA] → [PCI Devices] → [Unit]

(2) GUI operation

- Clearing the PCI device status
 - 1 Check the [Status] check box and click the [Status Clear] button.
The [Confirm Settings] dialog box opens.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.
The PCI device status is cleared.
 - 3 Click the [Return] button.
The [PCI Devices] window is displayed again.
- Not clearing the PCI device status
 - 1 Click the [Return] button.
The [PCI Devices] window is displayed again.

(3) Error message

If the system ends abnormally, the following message is displayed in a dialog box.

Message	Meaning	Response
Error: Status Clear Error : ErrorCode=****	Status clearing failed. [ErrorCode] 3309: PCI Status Clear	If using Refresh and then repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.6 Network Menu

The [Network] menu displays the network status and routing status in the partition.

This menu has the following windows:

- [Network Interfaces] window
- [Network Routings] window

This section describes these windows and operations in them.

7.6.1 [Network Interfaces] window

The [Network Interfaces] window displays the network status in the partition.

Network-related information may not be supplied depending on the type or status of the OS or a driver. A hyphen "-" is displayed for any of this information that is not supplied.

Interface Name	Status	MAC Address	Unit	Type	Speed	IP Address	IP Subnet Mask	Packets-In	Packets-Out
eth0	Up	00:0B:5D:6E:42:01	IOU#5-BMMH#0-NIC#1	Ether	100Mbps	-	-	2645369	408
eth1	Up	00:0B:5D:6E:02:12	IOU#5-BMMH#0-NIC#0	Ether	100Mbps	10.24.76.102	-	3032207	496209
eth2	Up	00:0B:5D:6F:02:72	IOU#5-GbE#0-FUNC#0	Ether	1000Mbps	-	-	749555	35
eth3	Up	00:0B:5D:6F:02:73	IOU#5-GbE#0-FUNC#1	Ether	1000Mbps	-	-	729691	35
eth4	Up	00:0B:5D:6F:02:78	IOU#5-GbE#1-FUNC#0	Ether	1000Mbps	-	-	749553	35
eth5	Up	00:0B:5D:6F:02:79	IOU#5-GbE#1-FUNC#1	Ether	1000Mbps	-	-	729687	36
lo	Up	-	-	Loopback	-	127.0.0.1	-	162483	162485

Figure 7.12 [Network Interfaces] window

The [Unit] item displays PCI device identification names for interfaces. Click the [Unit] item to display a detail window.

When the number of PCI cards is increased or decreased, it takes up to three minutes until the change is reflected in the window display.

Table 7.16 Displayed items in the [Network Interfaces] window

Item	Description																					
Interface Name	Interface name																					
Status	<div>LAN card and link status</div> <table><tr><th>Card status</th><th>Link status</th><th>Display</th></tr><tr><td>Up</td><td>Up</td><td>Up</td></tr><tr><td>Up</td><td>Down</td><td>Link Down</td></tr><tr><td>Up</td><td>Unknown</td><td>-</td></tr><tr><td>Down</td><td>Up</td><td>Down</td></tr><tr><td>Down</td><td>Down</td><td>Down</td></tr><tr><td>Down</td><td>Unknown</td><td>Down</td></tr></table> <div><ul style="list-style-type: none">• Up: Active• Down: Not active• Link Down: Link failure state<p>* The latest information is retrieved when this window is displayed.</p></div>	Card status	Link status	Display	Up	Up	Up	Up	Down	Link Down	Up	Unknown	-	Down	Up	Down	Down	Down	Down	Down	Unknown	Down
Card status	Link status	Display																				
Up	Up	Up																				
Up	Down	Link Down																				
Up	Unknown	-																				
Down	Up	Down																				
Down	Down	Down																				
Down	Unknown	Down																				
MAC Address	Physical address.																					
Unit	Displays PCI device identification names for interfaces.																					
Type	<div>Network type (high-level protocol type handled by the ARP protocol):</div> <ul style="list-style-type: none">• Ether: Ethernet• Loopback: Loopback (loopback interface)• Unknown: Unknown																					
Speed	<div>Preset value of the transmission speed in megabits per second.</div> <p>* The latest information is retrieved when this window is displayed.</p>																					
IP Address	IP address																					
IP Subnet Mask	Subnet mask																					
Packets-In	<div>Number of IP packets received by an interface.</div> <p>* The latest information is retrieved when this window is displayed.</p>																					
Packets-Out	<div>Number of IP packets transmitted by an interface.</div> <p>* The latest information is retrieved when this window is displayed.</p>																					

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Network] → [Network Interfaces]

(2) GUI operation

None

7.6.2 [Network Routing] window

The [Network Routing] window displays the routing status in the partition.

Note: This window is only supported when the OS in the partition is Linux.

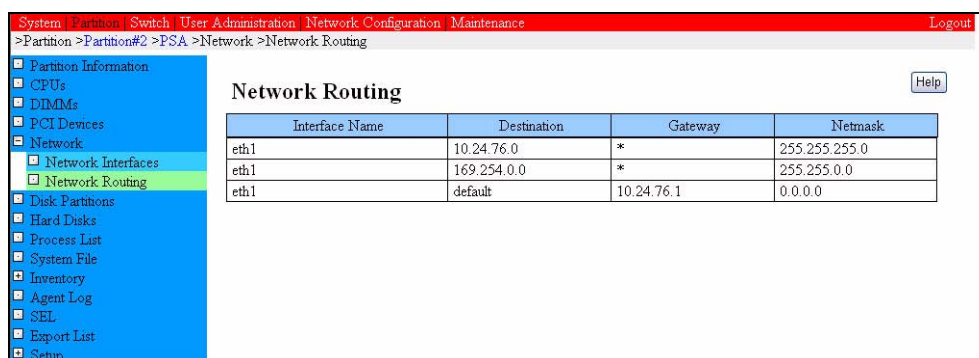


Figure 7.13 [Network Routing] window

Table 7.17 Displayed items in the [Network Routing] window

Item	Description
Interface Name	Interface name
Destination	Transmission destination
Gateway	Gateway. If there is no gateway, an asterisk [*] is displayed.
Netmask	Net mask

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Network] → [Network Routing]

(2) GUI operation

None

7.7 [Disk Partitions] Window

The [Disk Partitions] window displays disk partition information.

Note:

- This window is only supported when the OS in the partition is Linux.
- These fields display the information collected at the time of PSA boot.

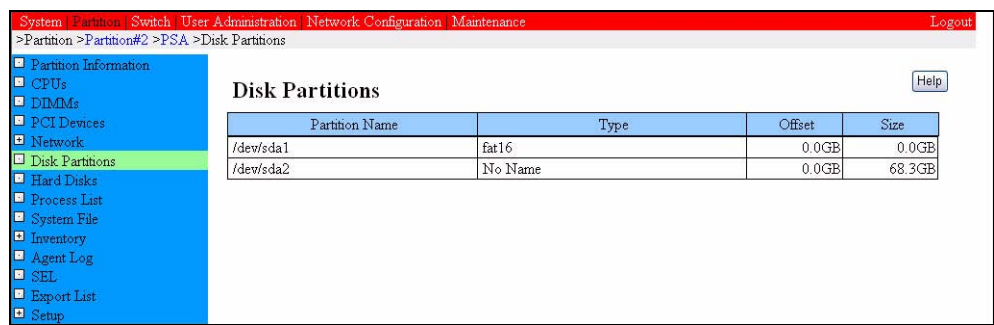


Figure 7.14 [Disk Partitions] window

Table 7.18 Displayed items in the [Disk Partitions] window

Item	Description
Partition Name	Disk partition name
Type	Disk partition type If no type is set, "No Name" is displayed. Example: The disk has been partitioned, but the partitions have not been formatted.
Offset	Disk partition offset value
Size	Disk partition size

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Disk Partitions]

(2) GUI operation

None

7.8 [Hard Disks] Window

The [Hard Disks] window lists the DISK information that is included in a partition.

When the number of DISKs is increased or decreased, it takes up to three minutes until the change is reflected in the window display.

Notes:

- In the ETERNUS multi-path environment in Linux, only the DISK (with the smallest bus number if there are two or more DISKs,) on one side with a multi-path specified is displayed. In Windows, a DISK with a multi-path specified is not displayed.
- If a disk under GDS/PSDM control is added or removed during OS operation, the values displayed for [Disk Capacity] are not updated. To update them, PSA must be restarted or the following PSA command must be executed (the following command is supported only in the Linux version of PSA):

```
/opt/FJSPsa/sh/force_search.sh -a
```

- When the Power Path of an EMC is used, a DISK may not be displayed.

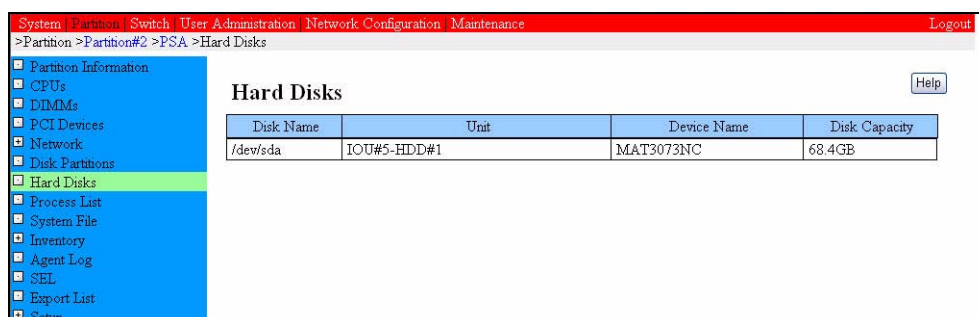


Figure 7.15 [Hard Disks] window

Table 7.19 Display items of [Hard Disks] window

Item	Description
Disk Name	Displays the name of a disk.
Unit	Displays the installation location of a disk.
Device Name	Displays the model name of a DISK.
Disk Capacity	Displays disk capacity. Up to 1,023 MB is displayed in MBs, and 1,024 MB and more are displayed in GBs (down to the first decimal place; the second and later decimal places are ignored.) For a GDS or PSDM, a hyphen [-] is displayed. Because the disk capacity is displayed, assuming that 1 GB = 1,024 MB = 1,024 x 1,024 KB, its value is slightly smaller than the catalog value.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Hard Disks]

(2) Window operation

None

7.9 [Process List] Window

The user can use the [Process List] window to monitor the current process information. For example, the user can watch the CPU usage time by process and thus easily check whether application processes are operating normally. If an unnecessary process is detected, a specific signal to the process can be sent.

Note: This window is only supported when the OS in the partition is Linux.

The [Process List] window has the following functions, required for process monitoring:

- 1 Displaying process list
- 2 Manual/Automatic updating of process list
- 3 Sorting process list
- 4 Transmitting a signal to the specified process

Remarks: The Administrator/Operator/User privilege can select these functions. However, the signal transmission function is not available to users with the User privilege. These functions are hidden on the menu and not available to users with the CE privilege.

Notes: If the PSA version is 1.1.x and Netscape 8 or later is the browser used, the following restrictions apply to this function:

- The function for Manual/Automatic updating of the process list cannot be used.
To manually update the process list, click [Process List] in the submenu frame.
- The function for sorting displayed items cannot be used.



Figure 7.16 [Process List] window

Table 7.20 Displayed and setting items in the [Process List] window

Item	Description
Refresh Time	Screen update time. The user can select one of the following options: <ul style="list-style-type: none"> • None: No updating • 5sec: 5 seconds • 10sec: 10 seconds • 30sec: 30 seconds • 60sec: 60 seconds The default setting is [None].
C	Check boxes for the signal transmission function (more than one can be checked). The init process and [] process cannot be selected. Users with the User privilege can not select any of the check boxes.
S	Process status: <ul style="list-style-type: none"> • D: Sleep status where no interrupt is permitted • R: Executable • S: Sleep status • T: Trace in progress or stopped • Z: Zombie process (no longer exists)
USER	Process user name
PID	Process ID
PPID	Parent process ID
PRIO	Priority
STIME	Process start time: <ul style="list-style-type: none"> • Less than 24 hours: Process start time (Example: 14:20) • 24 hours or more: Process start date (Example: Mar04)
TIME	Cumulative CPU usage time
CMD	Command name
Signal	Signals that can be transmitted. The user can select one of the following values: <ul style="list-style-type: none"> • SIGTERM • SIGHUP • SIGKILL • SIGINT • SIGQUIT The default setting is [SIGTERM]. The [Signal] pulldown list is available only to the Administrator/Operator privilege.

Table 7.21 Buttons in the [Process List] window

Button	Description
Set	Click the [set] button to set the automatic screen update time to the value selected from the [Refresh Time] pulldown list.
Refresh	Click the [Refresh] button to manually reload process list.
USER	Click [USER] to sort the process list in ascending order by user name.
PID	Click [PID] to sort the process list in ascending order by process ID.
TIME	Click [TIME] to sort the process list in descending order of cumulative CPU usage time.
Send	Check the check box of a process, select the signal, click the [Send] button, and the confirmation dialog box opens. Click the [OK] button in the confirmation dialog box, and the selected signal is transmitted to the specified process. The [Send] button is available only to the Administrator/Operator privilege.
Reset	Click the [Reset] button, and the checked check boxes are reset to the unchecked state. The [Reset] button is available only to users with the Administrator/Operator privilege.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Process List]

(2) GUI operation

- Updating process list
 - Select the update time from the [Refresh Time] pulldown list, and click the [Set] button.
The selected update time is set, and the process list is automatically updated and redisplayed.
 - Click the [Refresh] button.
The process list is manually updated and redisplayed.
- Sorting process list
 - 1 Click one of the [USER]/[PID]/[TIME] buttons in the process list information.
The process list has been sorted with one of [User], [PID], or [TIME] used as the keyword.

- Transmitting a signal to the specified process
 - 1 To transmit a signal to a process, check the check box of the process, select the signal from the [Signal] pulldown list, and click the [Send] button.
The confirmation dialog box opens.
 - 2 Click [OK] in the confirmation dialog box.
The specified signal is transmitted to the specified process, and the process list after transmission is displayed.

7.10 [System File] (Selection) Window

The [System File] (selection) window displays the names of specific system files. The system administrator can use this function to select necessary system files and display them to facilitate the administration work.

Note: This window is only supported when the OS in the partition is Linux.

The [System File] window has the following functions:

- 1 Selecting system files
- 2 Displaying system files (the following system files can be displayed):
 - /etc/hosts
 - /etc/nsswitch.conf
 - /etc/inittab
 - /etc/fstab
 - /etc/exports

These functions are available on the menu to the Administrator/Operator/User privilege.

The functions are hidden and not available on the menu to the CE privilege.

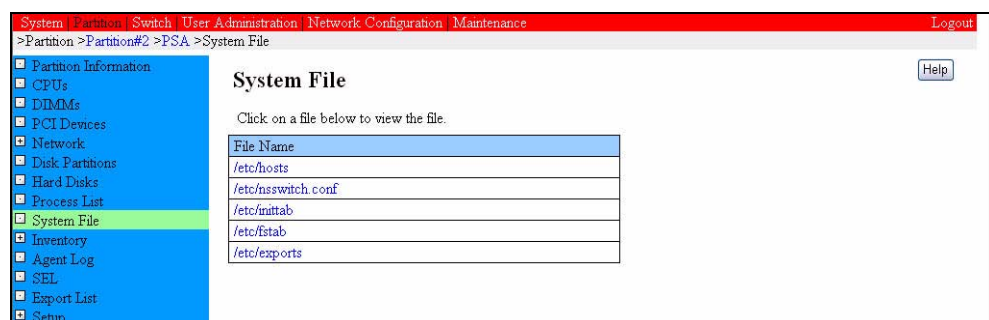


Figure 7.17 [System File] (selection) window

Table 7.22 Displayed item in the [System File] (selection) window

Item	Description
File Name	Names of system files, as follows: <ul style="list-style-type: none">• /etc/hosts• /etc/nsswitch.conf• /etc/inittab• /etc/fstab• /etc/exports

Table 7.23 Buttons in the [System File] (selection) window

Button	Description
System file name	Click the box containing a file name to display the contents of the file.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [System File]

(2) GUI operation

- 1 Click a system file.

The contents of the system file are displayed in the [System File] (display) window.

Additional note: If the selected system file cannot be displayed, an error message is displayed in the following format:

Table 7.24 Error messages

Error message	Cause
No such file	The specified file does not exist.
No absolute path	The file is specified with a relative path.
Read permission denied	When a user with User privilege uses this function, read permission to the system files listed in Table 7.22 is not given to "other users."
File size over	The specified file is larger than 2 MB.

An error message is displayed in the window as shown below.

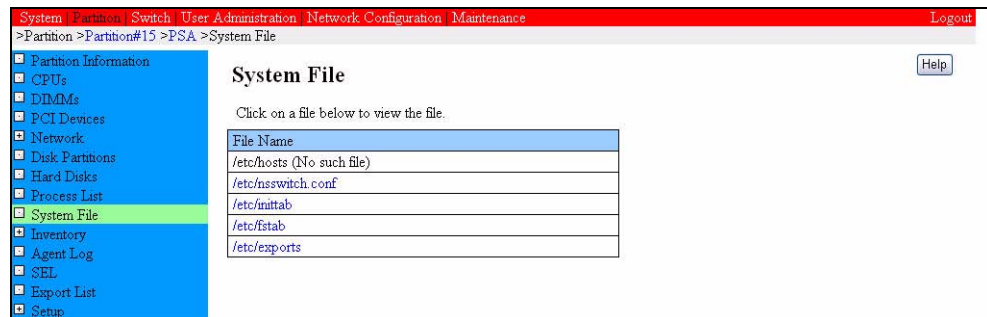


Figure 7.18 [System File] (selection) Error window

7.10.1 [System File] (display) window

The [System File] (display) window displays the contents of the system file selected in the [System File] (selection) window.

This function is available on the menu to the Administrator/Operator/User privilege.

The function is hidden and not available on the menu to the CE privilege.

Notes:

- If the PSA version is 1.1.x and Netscape 8 or later is the browser used, the following restrictions apply to this function:
 - The [Return] button in the [System File] (display) window cannot be used.
To return to the previous window, click the [Software Inventory] menu item in the submenu frame.
- The ISO-8859-1 character set is used in the displayed PSA window. Therefore, if the displayed data includes an unsupported character, the [System file] window (displayed) may not display data normally.
In this event, set the proper character code for the browser in the target window.

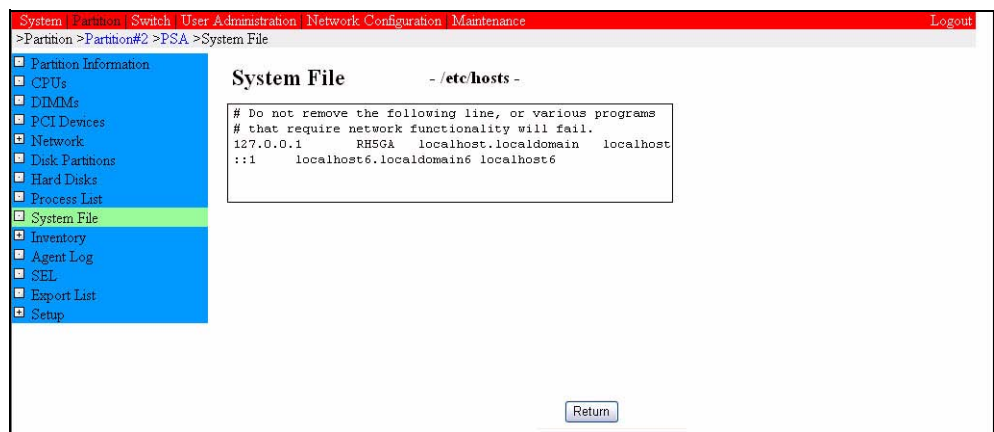


Figure 7.19 [System File] (display) window

This window is displayed when the system file [/etc/hosts] is selected in the [System File] (selection) window.

Table 7.25 Button in the [System File] (display) window

Item	Description
Return	Click the [Return] button to return to the [System File] (selection) window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [System File] → [file_name]

(2) GUI operation

- 1 Click the [Return] button.
The [System File] (selection) window is displayed again.

7.11 Inventory Menu

The [Inventory] menu displays inventories of the hardware and software in the partition.

This menu has the following windows:

- [Hardware Inventory] window
- [Software Inventory] window

This section describes these windows and operations in them.

7.11.1 [Hardware Inventory] window

The [Hardware Inventory] window displays an inventory of hardware (SB, IO Unit (IO Unit/IOX for PRIMEQUEST 520A/520/420), CPU, DIMM, PCI devices, and expansion file unit (SDU)) in the partition.

System Partition Switch User Administration Network Configuration Maintenance Logout					
>Partition >Partition#2 >PSA >Inventory >Hardware Inventory					
<div> <div> <div>Partition Information</div> <div>CPU's</div> <div>DIMMs</div> <div>PCI Devices</div> <div>Network</div> <div>Disk Partitions</div> <div>Hard Disks</div> <div>Process List</div> <div>System File</div> <div>Inventory</div> <div>Hardware Inventory</div> <div>Software Inventory</div> <div>Agent Log</div> <div>SEL</div> <div>Export List</div> <div>Setup</div> </div> <div>Hardware Inventory</div> <div>Help</div> </div>					
Unit	Name	Vendor(hex)	Part No.	Serial No.	Version
SB#7	-	-	CA06501-D102 A8	PP0528N703	-
IOU#5	-	-	CA06501-D112 A1	PP0509J548	-
SB#7-CPU#B0	Intel® Itanium® 2 Processor 1.60 GHz with 6MB L3 Cache	-	-	-	A1
SB#7-DIMM#0A0	DDR2-400	-	EBE10RD 4ABFA-4A-E	22068A7D	-
SB#7-DIMM#1A0	DDR2-400	-	EBE10RD 4ABFA-4A-E	22010546	-
SB#7-DIMM#2A0	DDR2-400	-	EBE10RD 4ABFA-4A-E	2203254D	-
SB#7-DIMM#3A0	DDR2-400	-	EBE10RD 4ABFA-4A-E	2206116E	-
IOU#5-BMMH#0-NIC#1	Intel Corporation 82557/8/9 [Ethernet Pro 100]	8086	-	-	10h
IOU#5-BMMH#0-NIC#0	Intel Corporation 82562ET/EZ/GT/GZ - PRO/100 VE (LOM) Ethernet Controller	8086	-	-	4h
IOU#5-GbE#0-FUNC#0	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	14E4	-	-	10h
IOU#5-GbE#0-FUNC#1	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	14E4	-	-	10h
IOU#5-SCSI#0-FUNC#0	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	1000	-	-	8h
IOU#5-SCSI#0-FUNC#1	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	1000	-	-	8h
IOU#5-GbE#1-FUNC#0	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	14E4	-	-	10h
IOU#5-SCSI#0-FUNC#0	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	1000	-	-	8h
IOU#5-SCSI#0-FUNC#1	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	1000	-	-	8h
IOU#5-GbE#1-FUNC#0	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	14E4	-	-	10h
IOU#5-GbE#1-FUNC#1	Broadcom Corporation NetXtreme BCM5704S Gigabit Ethernet	14E4	-	-	10h
IOU#5-SCSI#1-FUNC#0	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	1000	-	-	8h
IOU#5-SCSI#1-FUNC#1	LSI Logic / Symbios Logic 53c1030 PCI-X Fusion-MPT Dual Ultra320 SCSI	1000	-	-	8h

Figure 7.20 [Hardware Inventory] window

Table 7.26 Displayed items in the [Hardware Inventory] window

Item	Description
Unit	Identification name.
Name	Name
Vendor	Vendor ID or vendor name
PartNo.	Part number
SerialNo.	Serial number
Version	Version number

The following table describes what is displayed for devices in the columns of the above items. "-" indicates a column that is always displayed for the device.

	SB	IO Unit (*1)	CPU	DIMM	PCI device	SDU
Unit	Identification name	Identification name	Identification name	Identification name	Identification name	Identification name
Name	—	—	CPU model	Type	Device name	—
Vendor	—	—	—	—	Vendor ID	—
PartNo.	Part number	Part number	—	Part number	—	—
SerialNo.	Serial number	Serial number	—	Serial number	—	—
Version	—	—	Stepping	—	Version number	Unit version

*1: IOU/IOX for PRIMEQUEST 520A/520/420.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Inventory] → [Hardware Inventory]

(2) GUI operation

None

7.11.2 [Software Inventory] window

The user can use the [Software Inventory] window, at the time of a failure, to obtain installation package information, which can be used as troubleshooting data.

Note: This window is only supported when the OS in the partition is Linux.

The [Software Inventory] window provides the following functions.

- 1 Displaying RPM packages list and the OS version
- 2 Displaying details on an RPM package
- 3 Downloading RPM package list information

A file that stores RPM package list information is named [rpmplist.csv] by default.

The downloaded information is saved in the format shown below. For details on these items, see Table 7.29, "Displayed items in the [Software Inventory -Detail-] window."

[Name], [Version], [Release], [Architecture], [Vendor], [Build Date], [Install Date], [Group], [Source RPM], [Size], [License], [Packager], [URL], [Summary], [Description]

These functions are available to users with any user privilege.

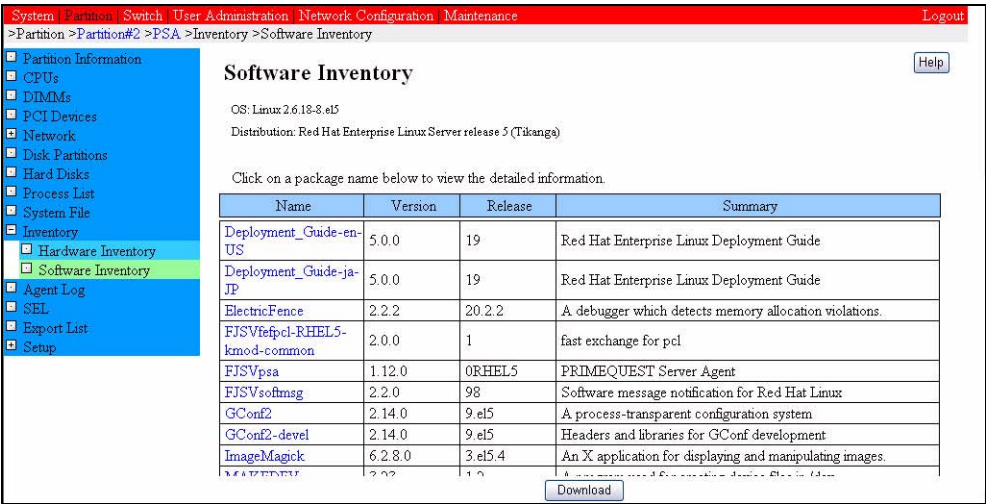


Figure 7.21 [Software Inventory] window

Remarks: If packages having the same RPM package name, but different CPU architectures are installed, the same RPM package name will be displayed multiple times in the name column.

Table 7.27 Displayed items in the [Software Inventory] window

- OS information

Item	Description
OS	OS name and kernel version
Distribution	Distribution name

- RPM package lists

Item	Description
Name	RPM package name
Version	RPM package version
Release	Release information
Summary	Summary information

Table 7.28 Buttons in the [Software Inventory] window

Button	Description
RPM package name	Click an RPM package name to display the [Software Inventory - Detail-] window.
Download	Click the [Download] button to download RPM package list information in CSV format.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Inventory] → [Software Inventory]

(2) GUI operation

- Displaying detailed package
 - 1 Click an RPM package name.
The [Software Inventory -Detail-] window is displayed.
 - 2 Click the [Return] button in the [Software Inventory -Detail-] window.
The [Software Inventory] window is displayed again.
- Downloading package list information
 - 1 Click the [Download] button.
The [Download File] dialog box opens.
 - 2 Click the [Save] button in the [Download File] dialog box.
The [Save As] dialog box opens.
 - 3 In the [Save As] dialog box, specify a file and click the [Save] button.
The package list is saved in the specified file in CSV format.

7.11.2.1 [Software Inventory -Detail-] window

The [Software Inventory -Detail-] window displays details on an RPM package.

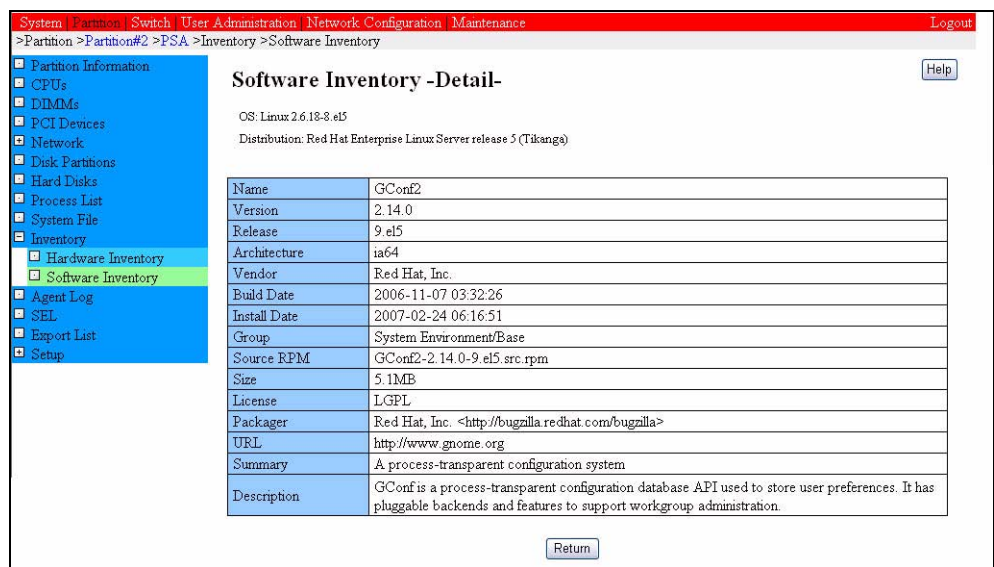


Figure 7.22 [Software Inventory -Detail-] window

Remarks: If the system includes RPM packages that correspond to multiple CPU architectures, the window displays detailed information on each of the CPU architectures.

Note: If the PSA version is 1.1.x and Netscape 8 or later is the browser used, the following restrictions apply to this function:

- The [Return] button in the [Software Inventory -Detail-] window cannot be used.
To return to the previous window, click the [Software Inventory] menu item in the submenu frame.

Table 7.29 Displayed items in the [Software Inventory -Detail-] window

- OS information

Item	Description
OS	OS name and kernel version number
Distribution	Distribution name

- RPM package detail

Item	Description
Name	RPM package name
Version	RPM package version number
Release	Release information
Architecture	Indicates the CPU architecture.
Vendor	Vendor information
Build Date	Build date and time, as follows: yyyy-MM-dd HH:mm:ss
Install Date	Installation date and time, as follows: yyyy-MM-dd HH:mm:ss
Group	Group
Source RPM	Source RPM information
Size	Size in bytes, kilobytes, megabytes, or gigabytes (calculated to the first decimal place with the digits in subsequent decimal places omitted).
License	License
Packager	Package creator
URL	URL information
Summary	Summary information
Description	Detailed information

Table 7.30 Button in [Software Inventory -Detail-] window

Button	Description
Return	Click the [Return] button to return to the [Software Inventory] window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Inventory] → [Software Inventory] → RPM package name

(2) GUI operation

- 1 Click the [Return] button.
The [Software Inventory] window is displayed again.

7.12 [Agent Log] Window

The [Agent Log] window displays an agent log list.

An agent log is a recorded history of PSA actions (Events detected within PSA with IDs from 00000 to 09999 are excluded.) Up to 5,000 agent logs are stored in binary format. When the maximum number of logs is reached, the logs are overwritten, starting from the oldest ones.

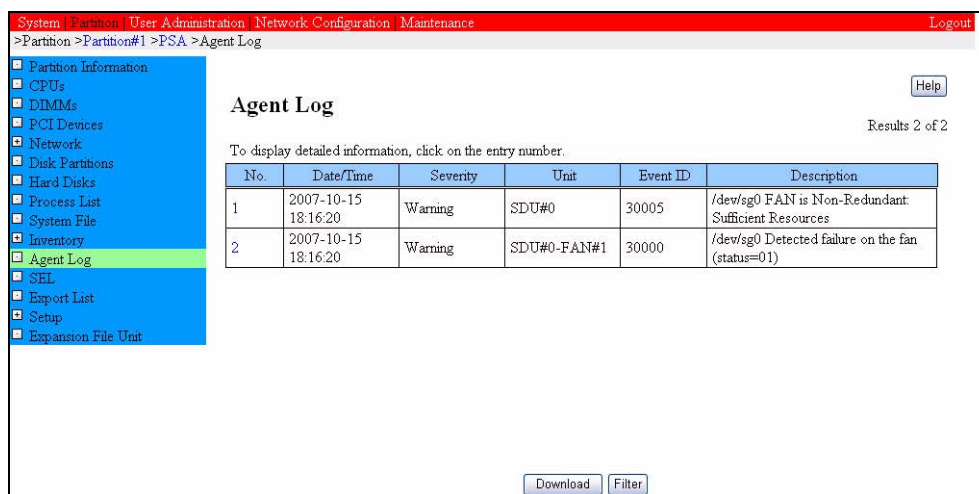


Figure 7.23 [Agent Log] window

On the initial screen, the latest 1,000 messages are displayed in descending order by time. Specify conditions in the [Agent Log Filtering Condition] window, and the messages that match the specified conditions are displayed.

The [Agent Log] window is horizontally split into two frames: the top frame displays a list of messages, and the bottom frame displays details related to the selected message. The bottom frame is blank when the list is initially displayed.

If there is no agent log or none matches the specified conditions, the [Agent Log] window displays the displayed item titles together with a message indicating that no log to be displayed exists.

Additional note: Up to 5000 agent log items can be stored, but one window can display up to 1000. To view the hidden agent log, specify filter conditions.

Note: The window supports ISO-8859-1 for displaying PSA action information. If the displayed window includes any character that is not supported, the [Agent Log] window contents may not be normally displayed. In such cases, specify an appropriate character code for the browser displaying the window.

Table 7.31 Displayed and setting items in the [Agent Log] window

Item	Description
Number of agent log items displayed	Number of displayed agent log items and number of stored agent log items for PSA actions Example: The latest 1,000 items out of 5,000 items are displayed: Results 1000 of 5000
No	Log number. If detailed information is available, this is underlined (linked).
Date/Time	Log time, as follows: yyyy-MM-dd HH:mm:ss
Severity	Severity level: <ul style="list-style-type: none">• Error: Serious problem such as a hardware failure• Warning: Warning status (An event that is not serious but will possibly develop into a problem.)• Information: Information (Normal event)
Unit	Identification name of the location. If the unit name is unknown, "Unknown" is displayed. Unknown is displayed when any of the following conditions apply. <ul style="list-style-type: none">• There is no information about the fault location in the driver's message.• An error has occurred with a device not being managed by PSA.• During hot plugging, an abnormality occurred while the OS was recognizing the device, leading to PSA failing to recognize the device, which in turn caused an error occurrence.• During hot plugging, an error occurred during the interval after the OS recognized the device but before PSA could recognize it.
EventID	Event ID
Description	Message
Detailed information area (displayed in the bottom frame)	Details related to the message. Details on the selected log are displayed. If messages contain Japanese character codes, they may be corrupted.

Table 7.32 Buttons in the [Agent Log] window

Button	Description
Each box containing a log number under [No]	If detailed information is available, the number in the [No] column is underlined (linked). Clicking the link displays detailed agent log information in the bottom frame.
Download	Click the [Download] button to download all agent logs stored in the partition in CSV file format, regardless of the display conditions.
Filter	Click the [Filter] button to display the [Agent Log Filtering Condition] window, which allows the user to specify message filtering conditions.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Agent Log]

(2) GUI operation

- Downloading all agent logs stored in the partition in CSV file format
 - 1 Click the [Download] button.
The [Download File] dialog box opens.
 - 2 Click the [Save] button in the [Download File] dialog box.
The [Save As] dialog box opens.
 - 3 In the [Save As] dialog box, specify a file name, specify CSV files (with the extension .csv) as the file type, and click the [Save] button.
A CSV file is downloaded to the specified location, and the [Download Completed] message box is displayed.
 - 4 Click the [Close] button in the [Download Completed] message box.
The [Agent Log] window is displayed again.
- Specifying filtering conditions
 - 1 Click the [Filter] button.
The [Agent Log Filtering Condition] window is displayed.
 - 2 Specify conditions in the [Agent Log Filtering Condition] window, and click the [Apply] button.
The conditions are set, and the [Agent Log] window is displayed again.

Remarks:

- If at least one Agent Log item has been created, filtering conditions can be specified.

- The specified filtering conditions remain in effect as long as the [Agent Log] window is the active window. However, the conditions are reset when another window becomes the active window or the window is redisplayed from the menu.

7.12.1 [Agent Log Filtering Condition] window

The user can use the [Agent Log Filtering Condition] to specify filtering conditions for displaying a log list in the [Agent Log] window. Each filtering condition item is processed as an AND operand for displaying the list.

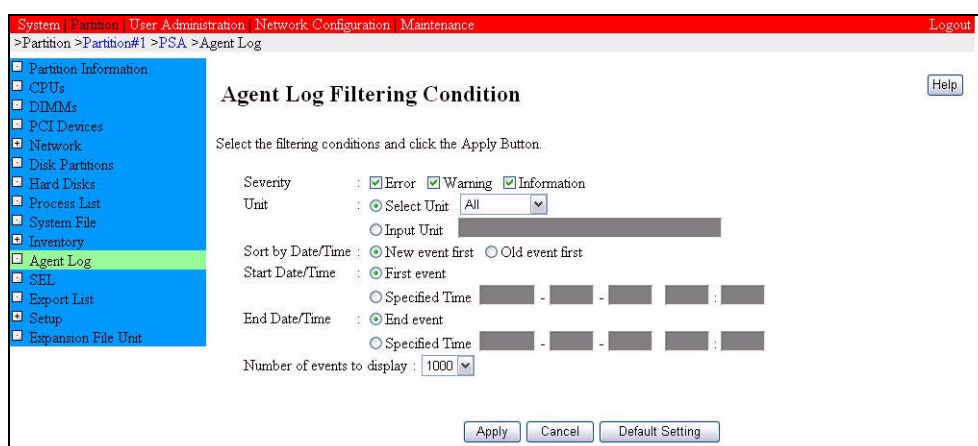


Figure 7.24 [Agent Log Filtering Condition] window

Table 7.33 Displayed and setting items in the [Agent Log Filtering Condition] window

Item	Description
Severity	The user can select an alert level by checking a check box (more than one can be checked): <ul style="list-style-type: none">• Error: Serious problem such as a hardware failure• Warning: Event that is not serious but will possibly develop into a problem• Information: Normal event such as partition power-on All levels are checked by default.

Item	Description
Unit	<p>The user can click the corresponding radio button to either select a event location from the pulldown list or directly enter a unit name:</p> <p>Select Unit: To select a unit type</p> <p>Input Unit Name: To directly enter a unit name</p> <p>When selecting a event location from the pulldown list (only one item can be selected):</p> <ul style="list-style-type: none"> • All • SB • CPU • DIMM • IOU <ul style="list-style-type: none"> * IOU/IOX for PRIMEQUEST 520A/520/420 • PCI_Card • Disk • Software • MMB/BMC <ul style="list-style-type: none"> * Selects events of MMB and BMC units as well as events that occurred in an MMB or BMC unit. • Network • SDU <ul style="list-style-type: none"> * This item is displayed when one or more expansion file units are connected to a partition. <p>When directly entering a unit name:</p> <p>Characters that can be entered:</p> <p>En-size alphanumeric characters, en-size space, en-size symbols (up to 64 characters). However, this does not include the following symbols:</p> <p><>%&"\</p> <p>If only en-size spaces are entered or nothing is entered, the entered string is not valid.</p> <p>Strings are compared in right truncation mode.</p> <p>Example: If SB#0 is specified, all units, including the CPU and DIMM, under control of SB#0 are displayed.</p> <p>The default setting is [All].</p>
Sort by Date/Time	<p>The user can specify the order for displaying events, from new events to old events or vice versa, by clicking a radio button:</p> <ul style="list-style-type: none"> • New event first • Old event first <p>The default setting is [New event first].</p>
Start Date/Time	<p>The user can select the start time:</p> <ul style="list-style-type: none"> • First event: Start from the first event • Specified Time: Start from the specified time <p>The year, month, day, hour, and minute of the start time must also be entered when Specified Time is selected.</p> <p>The default setting is [First event].</p>

Item	Description
End Date/Time	The user can select the end time: <ul style="list-style-type: none">• End event: End at the last event• Specified Time: End at the specified time The year, month, day, hour, and minute of the end time must also be entered when Specified Time is selected. The default setting is [End event].
Number of events to display	The user can select the maximum number of events displayed in the window from the pull-down list: 100/200/300/400/500/1000 The default setting is 1000.

Table 7.34 Buttons in the [Agent Log Filtering Condition] window

Button	Description
Apply	Click the [Apply] button to display a list of only the messages that match the specified conditions in the [Agent Log] window. If no matching message exists, a message with a title is displayed, stating that there is no log to be displayed.
Cancel	Click the [Cancel] button to return to the previous window with an agent log list.
Default Setting	Click the [Default Setting] button to return the selected values to the default values.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Agent Log] → [Filter]

(2) GUI operation

- To display the [Agent Log] window in specified filtering conditions:
 - 1 Specify conditions, and click the [Apply] button.
The [Agent Log] window is displayed again. The [Agent Log] window displays a list of only the messages that match the specified conditions. If no matching message exists, a message with a title is displayed, stating that there is no log to be displayed.
- To redisplay the [Agent Log] window
 - 1 Click the [Cancel] button. The specified selections are canceled and the [Agent Log] window reappears.
- To return the selected values to the default values:
 - 1 Click the [Default Setting] button. The conditions selected for all parameters are cleared and the parameters revert to their default values.

7.13 [SEL] Window

The [SEL] window allows you to download SEL files (binary format) from the partition.

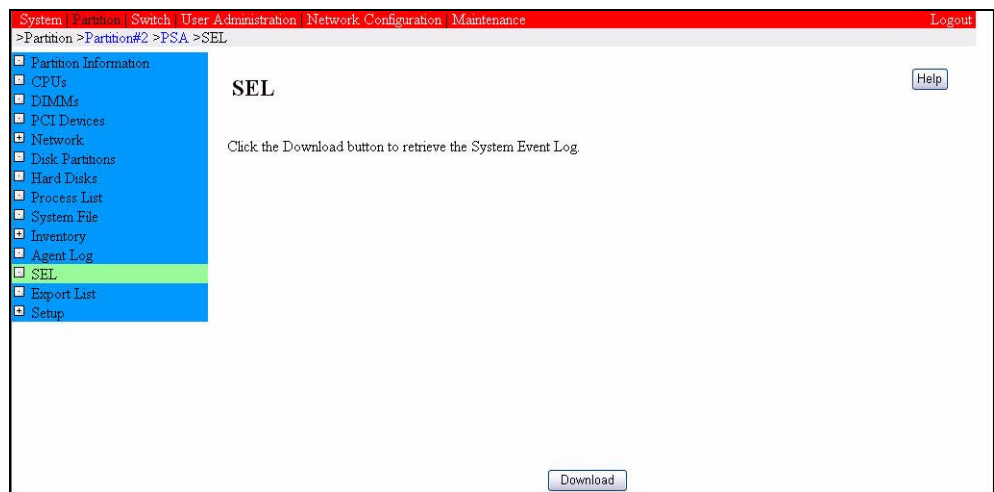


Figure 7.25 [SEL] window

Table 7.35 Buttons in the [SEL] window

Item	Description
Download	Click the [Download] button, and a download confirmation dialog box and a dialog box used to specify the destination file name open in turn. Click the [Save] button in each of these two dialog boxes to download SEL log files currently stored in the partition.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [SEL]

(2) GUI operation

- 1 Click the [Download] button.
The [Download File] dialog box opens.
- 2 Click the [Save] button in the [Download File] dialog box.
The [Save As] dialog box opens.

- 3 In the [Save As] dialog box, specify a file name (without selecting a file type nor specifying an extension) and click the [Save] button.
The file is downloaded and the [Download Completed] message box is displayed.
- 4 Click the [Close] button in the [Download Completed] message box.
The [SEL] window is displayed again.

7.14 [Export List] Window

The [Export List] window provides the export function, which allows the user to save snapshots of information stored by PSA to files in CSV format .

Exporting is performed from the [Export] window.

Up to 100 files of export data can be saved. When the number of saved files exceeds 100, the oldest file is deleted and a new file is saved. As long as the number of saved files is less than the maximum number, export data is not deleted unless the user deletes it intentionally. Export data can be downloaded as many times as desired.

Downloaded export data is stored in CSV format, allowing it to be read using an application such as EXCEL.

Be sure to back up the PSA setting information after changing the PSA settings.

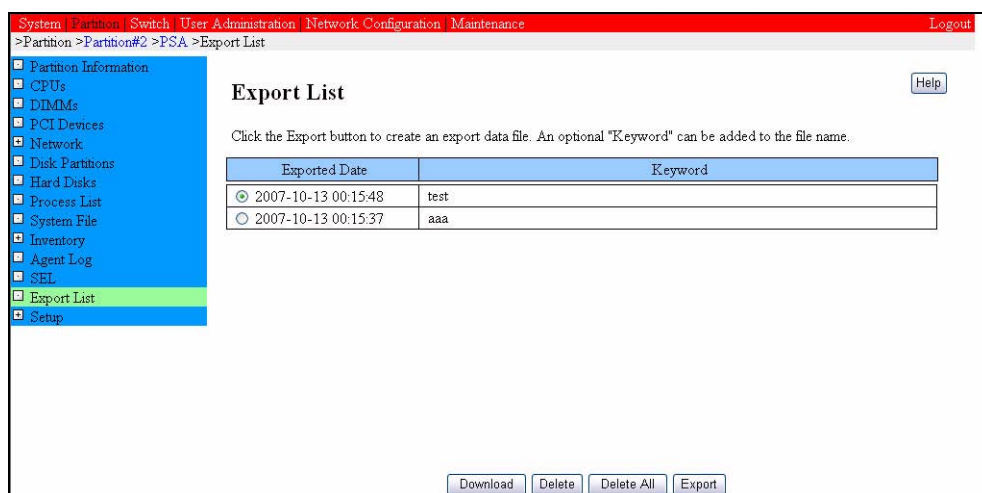


Figure 7.26 [Export List] window

On the initial screen of the [Export List] window, a list of files that have been exported is displayed, starting from the newest one.

Table 7.36 Displayed and setting items in the [Export List] window

Item	Description
Exported Date (Radio Button)	Select the file to be downloaded or deleted, using the appropriate radio button.
Exported Date	The export date and time is displayed. Example: 2004-05-06 08:45:00 * The local time in the partition is used.
Keyword	The keyword entered at the export time is displayed.

Table 7.37 Buttons in the [Export List] window

Button	Description
Download	Click the [Download] button to download the selected export file to your terminal, using the download function.
Delete	Click the [Delete] button to delete the selected export file from the management domain in the partition.
Delete All	Click the [Delete All] button, and a confirmation dialog box opens. Click the [OK] button in the confirmation dialog box to delete all export files from the management domain in the partition.
Export	Click the [Export] button, and the export setting window opens.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Export List]

(2) GUI operation

- Saving a snapshot of information stored by PSA to a file in CSV format
 - 1 Click the [Export] button.
The [Export] window opens.
 - 2 In the [Export] window, enter a keyword and click the [Export] button.
When export is successful, a CSV file is created in the specified directory, and the [Export List] window is displayed again. The [Export List] window displays the latest information.
If export fails, the [Export Failed Message] dialog box opens.
 - 3 Click the [OK] button in the [Export Failed Message] dialog box.
The [Export List] window is displayed again.
- Downloading an export file to your terminal
 - 1 Select the radio button of the file to be exported (only one can be selected), and click the [Download] button.
The [Download File] dialog box opens.

- 2 Click the [Save] button in the [Download File] dialog box.
The [Save As] dialog box opens.
 - 3 In the [Save As] dialog box, specify a file name (with csv as the file type) and click the [Save] button.
A CSV file is downloaded to the specified location, and the [Download Completed] message box is displayed.
 - 4 Click the button in the [Download Completed] message box to close the message box.
The [Export List] window is displayed again. The [Export List] window displays the latest information.
- Deleting export files from the management domain in the partition
 - 1 Either click the [Delete All] button or select the radio button of the file to be deleted (only one can be selected), and click the [Delete] button.
The [Confirm Deletion] dialog box opens.
 - 2 Click the [OK] button in the [Confirm Deletion] dialog box.
When the file or all files are successfully deleted, the [Export List] window is displayed again. The [Export List] window displays the latest information.
If deletion fails, the [Deletion Failed] dialog box opens.
 - 3 Click the [OK] button in the [Deletion Failed] dialog box.
The [Export List] window is displayed again.

Note: When an attempt is made to download an export file to the terminal, the following message will be displayed if the file has already been deleted.
E_33005 Communication Error. (01:3378)
In this event, choose [Export List] from the menu again to redisplay the list.

(3) Error messages

If the system ends abnormally, any of the following messages is displayed in a dialog box.

Message	Meaning	Response
Error: Delete File Error : ErrorCode=****	Deleting an exported file failed. 3306: SISP recovery error (one deleted) 3307: SISP recovery error (all deleted)	If repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.14.1 [Export] window

The user can use the [Export] window to export files. The user can assign a keyword to the export data. A keyword is optional although it is useful in distinguishing data.

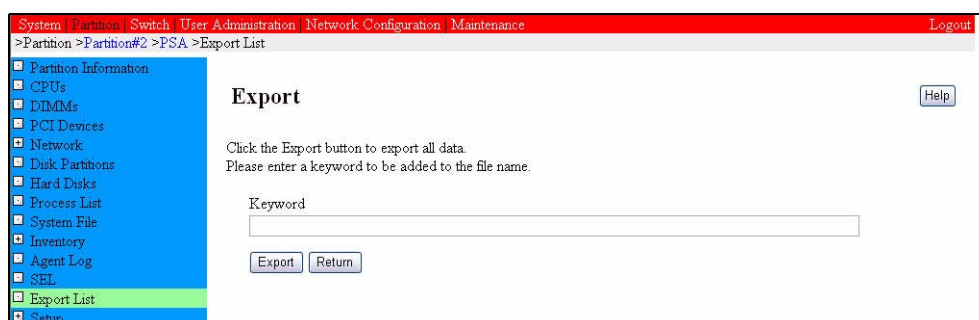


Figure 7.27 [Export] window

Table 7.38 Displayed and setting items in the [Export] window

Item	Description
Keyword	The user can enter a keyword (optional) in the text input field to add the keyword to export data. Up to 50 characters can be entered, including en-size alphanumeric characters, the en-size space character, and en-size symbols. However, this does not include the following symbols: <>%&”,\ This field is left blank to omit a keyword.

Table 7.39 Buttons in the [Export] window

Button	Description
Export	Click the [Export] button to verify the entered keyword, collect information that has been stored by PSA, and create a CSV file in the specified directory. When the file is successfully created, the [Export List] window displays the latest information, with the created file at the top of the list. If export fails, the [Export Failed] dialog box opens. Click the [OK] button, and the [Export List] window displays the latest list.
Return	Click the [Return] button to cancel export processing. The [Export List] window displays the latest list.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Export List] → [Export]

(2) GUI operation

- 1 Enter a keyword, and click the [Export] button.
When a CSV file is successfully created, the [Export List] window is displayed again. The [Export List] window displays the latest list, with the created file at the top of the list.
If export fails, the [Export Failed Message] dialog box opens.
- 2 If the export operation fails, click the [OK] button in the [Export Failed Message] dialog box.
The [Export List] window is displayed again, and the window displays the latest list.

(3) Error messages

If the system ends abnormally, any of the following messages is displayed in a dialog box.

Message	Meaning	Response
Error: Export Error : ErrorCode=****	Export failed. [ErrorCode] 3308: SISP recovery error	If repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.15 Setup Menu

The [Setup] menu has the following windows:

- [Watchdog] window
- [S.M.A.R.T.] window

This section describes these windows and operations in them.

7.15.1 [Watchdog] window

Monitoring with Software Watchdog and monitoring with Boot Watchdog can be set up in the [Watchdog] window.

Only a setting privilege user can change the settings.

The Software Watchdog directs the PSA to restart periodically the Watchdog timer. However, if the PSA cannot restart the Watchdog timer within the specified time due to such system errors as a high OS load and an unreturned response, the MMB executes the specified action.

The Boot Watchdog is a function that executes the specified action unless OS boot is completed within a specified length of time. For the Boot Watchdog, specify options other than the timeout value in the [ASR Control] window of the MMB. The [ASR Control] window also provides a function that disables the Boot Watchdog settings in an emergency. For details about the [ASR Control] window, see [Section 5.3.9.3, "\[ASR \(Automatic Server Restart\) Control\] window"](#) in [Part III, "MMB."](#)

CAUTION

Malfunction

Before any of the following operations is performed, [Disable] must be set for the Boot Watchdog.

- Booting from a CD-ROM disk
- Booting the system in single-user mode
- Backing up or restoring data by using SystemcastWizard

If any of the above operations is performed with [Enable] set for the Boot Watchdog, OS restart is attempted repeatedly for the specified number of times. The system then takes the specified action (Stop rebooting and Power Off, Stop rebooting, or Diagnostic interrupt assert). The number of retries of the OS restart and the actions to be taken can be set in the [ASR Control] window for the MMB-UI.

In the [ASR Control] window, check [Cancel Boot Watchdog], and click the [Apply] button. [Disable] can thus be forcibly set for the Boot Watchdog.

For details about the [ASR (Automatic Server Restart) Control] window of MMB, see [Section 5.3.9.3, "\[ASR \(Automatic Server Restart\) Control\] window,"](#) in [Part III, "MMB."](#)

- If 0 is specified for the value of Number-of-Restart-Tries in the [ASR (Automatic Server Restart) Control] window of the MMB, the specified action is not executed even after a lapse of the time at which a timeout should occur. Do not specify 0 for the value when you enable watchdog monitoring.

For details of the [ASR (Automatic Server Restart) Control] window of the MMB, see [Section 5.3.9.3, "\[ASR \(Automatic Server Restart\) Control\] window"](#) in [Part III, "MMB."](#)

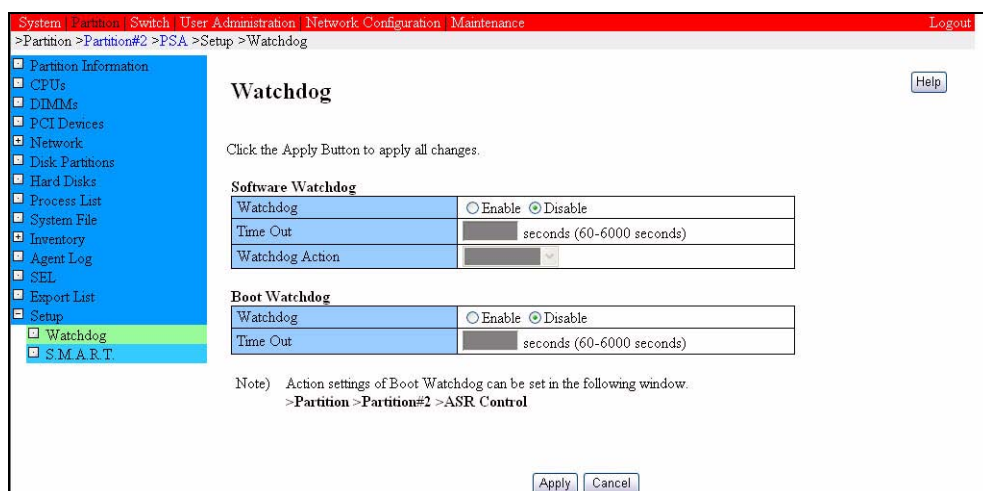


Figure 7.28 [Watchdog] window

Table 7.40 Displayed and settings items in the [Watchdog] window

Item	Description
Software Watchdog	
Watchdog	The user can enable or disable SoftWare Watchdog monitoring: <ul style="list-style-type: none">• Disable: Disable monitoring• Enable: Enable monitoring The default setting is [Disable].
TimeOut	The user can specify a timeout value in seconds, which is used while the SoftWare Watchdog monitoring is enabled: Range: 60 to 6000 seconds This item can be specified only if [Enable] is selected. The default setting is 3600 seconds.
Watchdog Action	The user can select from a pulldown list the action to be executed after a timeout: <ul style="list-style-type: none">• No Action: Execute no action. Except SEL output.• Reset: Reset the partition• Power Off: Power off the partition forcibly without the normal OS termination process (shutdown)• Power Cycle: Forcibly power off the partition and power it on again• INIT: Issue an INIT interrupt to the partition You can only specify this item when you select [Enable]. The default is [No Action].
Boot Watchdog	
Watchdog	The user can enable or disable Boot Watchdog monitoring: <ul style="list-style-type: none">• Disable: Disable monitoring• Enable: Enable monitoring The default setting is [Disable]. Note: Before any of the following operations is performed, [Disable] must be set for the Boot Watchdog. <ul style="list-style-type: none">• Booting from a CD-ROM disk• Booting the system in single-user mode• Backing up or restoring data by using SystemcastWizard
TimeOut	The user can specify a timeout value in seconds, which is used while Boot Watchdog monitoring is enabled: Range: 60 to 6000 seconds Note: Determine the value based on the duration from when the partition power is turned on and [System Progress] in the [Power Control] window of the MMB changes to [Boot] to when it changes to [OS Running]. Fujitsu recommends setting a value that is at least twice this elapsed time in order to prevent mistaken detection. Also, consider the time taken to save a dump in the event of an OS panic. You can only specify this item if you select [Enable]. The default value is 0 seconds. Note that you always need to change the default value.

Table 7.41 Buttons in the [Watchdog] window

Button	Description
Apply	Click the [Apply] button to set the values entered for Watchdog monitoring. Clicking this button validates the settings for both Software Watchdog and Boot Watchdog.
Cancel	Click the [Cancel] button to clear the entered values and revert to the original settings.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Setup] → [Watchdog]

(2) GUI operation

- Setting up Watchdog monitoring (when correct values are entered)
 - 1 Select and enter values for the Watchdog monitoring settings, and click the [Apply] button.
If the entered values are correct, the [Confirm Settings] dialog box opens.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.
The Watchdog monitoring settings are set.
When setup is successfully completed, the [Watchdog] window is displayed again.
If setup terminates abnormally, the [Abnormal Settings Report] dialog box opens.
 - 3 Click the [OK] button in the [Abnormal Settings Report] dialog box.
The [Watchdog] window is displayed again.
- Setting up Watchdog monitoring (when incorrect values are entered)
 - 1 Select and enter values for the Watchdog monitoring settings, and click the [Apply] button.
If the entered values are incorrect, the [Input Value Error] dialog box opens.
 - 2 Click the [OK] button in the [Input Value Error] dialog box.
The [Watchdog] window is displayed again.

(3) Error messages

If the system ends abnormally, any of the following messages is displayed in a dialog box.

Message	Meaning	Response
Error: Software WatchDog Set Error : ErrorCode=****	Making a setting for the Software Watchdog failed. [ErrorCode] 3300: Resource shortage 3301: SNMPSET error	If repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.
Error: Boot WatchDog Set Error : ErrorCode=****	Making a setting for the Software Watchdog was successful but making a setting for the Boot Watchdog failed. [ErrorCode] 3300: Resource shortage 3301: SNMPSET error	If repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.15.2 [S.M.A.R.T.] window

The hard disk has a S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) function for predictive monitoring.

The [S.M.A.R.T.] windows allows you to specify whether to perform S.M.A.R.T. monitoring for HDDs in order to detect warning signs of impending failures. This setting can only be changed by users who have been granted the setting privilege.

The setting is implemented for all disks at the same time.

The target disks are as follows:

- Internal disks (except disks that do not support S.M.A.R.T. monitoring)
- External disks (except RAID units and disks that do not support S.M.A.R.T. monitoring)

Information to be monitored and processing to be performed by S.M.A.R.T

- Information to be monitored

S.M.A.R.T. performs predictive monitoring for the information types below and reports when the threshold defined for each of them in S.M.A.R.T. is exceeded. The threshold for each item depends on the type of disk of each vendor.

- Temperature
- Read error rate
- Write error rate
- Seek error rate
- Spin-up time
- Number of remaining alternate sectors

Setting monitoring polls S.M.A.R.T. on each disk periodically (about every six hours) to check whether a predictive signs of failure have been detected.

- Processing performed at detection of a predictive sign of error
 - Blinks the Fault LED on the relevant disk by repeating a cycle of "four quick blinks + pause"
 - Outputs information posted from S.M.A.R.T. to SYSLOG and reports it (REMCS/e-mail)

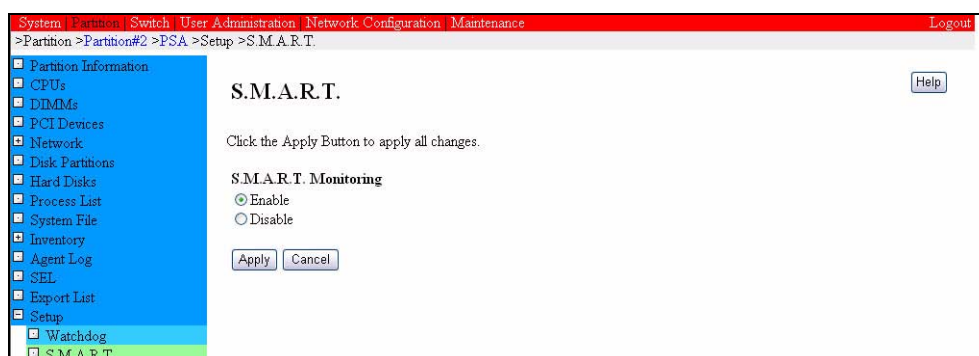


Figure 7.29 [S.M.A.R.T.] window

Table 7.42 Displayed and settings items in the [S.M.A.R.T.] window

Item	Description
S.M.A.R.T. Monitoring	<p>Specify whether to perform S.M.A.R.T. monitoring.</p> <ul style="list-style-type: none">• Enable: Enable monitoring• Disable: Disable monitoring <p>The default setting at the time of shipment is [Enable].</p> <p>Only a setting privilege user can specify this setting. A read privilege user can view the selected setting but cannot specify the setting.</p>

Table 7.43 Buttons in the [S.M.A.R.T.] window

Button	Description
Apply	<p>Click the [Apply] button to set the selected S.M.A.R.T. monitoring setting.</p> <p>If either of the radio buttons is selected, the [Confirm Settings] dialog box opens. When the [OK] button in the [Confirm Settings] dialog box is clicked, the selected S.M.A.R.T. monitoring setting is actually set, and the [S.M.A.R.T.] window is displayed with the setting reflected.</p>
Cancel	<p>Click the [Cancel] button to revert to the original setting.</p>

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Setup] → [S.M.A.R.T.]

(2) GUI operation

- 1 Select a S.M.A.R.T. monitoring setting by selecting a radio button, and click the [Apply] button.
If input is correct, the [Confirm Settings] dialog box opens.
- 2 Click the [OK] button in the [Confirm Settings] dialog box.
The S.M.A.R.T. monitoring setting is set.
When setup is successfully completed, the [S.M.A.R.T.] window is displayed again.
If setup terminates abnormally, the [Abnormal Settings Report] dialog box opens.
- 3 Click the [OK] button in the [Abnormal Settings Report] dialog box.

(3) Error messages

If the system ends abnormally, any of the following messages is displayed in a dialog box.

Message	Meaning	Response
Error: S.M.A.R.T. Set Error :ErrorCode=****	Making a setting for S.M.A.R.T failed. [ErrorCode] 3300: Resource shortage 3301: SNMPSET error	If repeating the operation in the window results in the same problem, contact the system administrator or a Fujitsu certified service engineer.

7.16 [Expansion File Unit] Window

The [Expansion File Unit] window displays information on the expansion file units that are included in each partition.

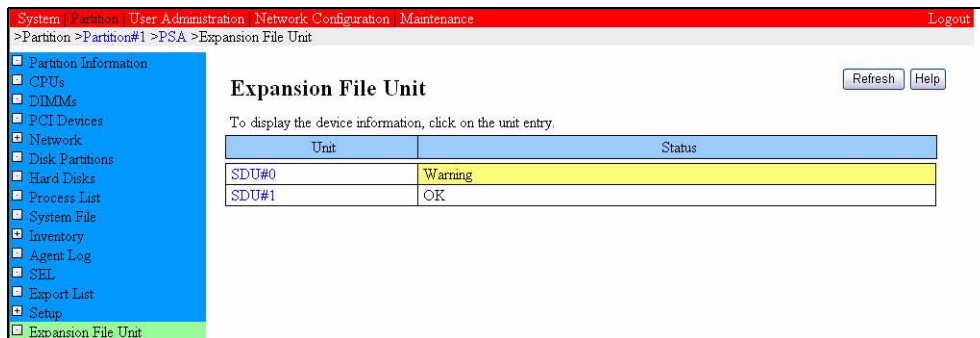


Figure 7.30 [Expansion File Unit] window

The [Expansion File Unit] window lists the expansion file units that are included in the partition. Click the [Unit] item to display a detail window.

Note: The window is displayed when at least one expansion file unit is included in the partition.

Table 7.44 Display items of [Expansion File Unit] window

Item	Explanation
Unit	Displays the identification name of an expansion file unit.
Status	<p>Displays the hardware status (unified status of the fan, power supply, and controller of an expansion file unit) of an expansion file unit as follows:</p> <ul style="list-style-type: none">• OK: Normal• Error: An important problem such as a hardware error is detected.• Warning: Warning status (A problem may occur in the future.)• Unknown: Uncertain <p>It takes up to five minutes until a status change is reflected in the window display.</p>

Table 7.45 Buttons of [Expansion File Unit] window

Button	Explanation
Display frame of each [Unit]	Click the display frame of each [Unit] to display a detail window.

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Expansion File Unit]

(2) Window operation

- 1 Click the item [Unit].
The [SDU#x] window is then displayed.
- 2 Click the [Return] button in the displayed [SDU#x] window.
The [Expansion File Unit] window is then displayed.

7.16.1 [SDU#x] window

The [SDU#x] window displays information on an expansion file unit.

Setting privilege users can clear the status with the [Status Clear] button.

Note: The window is displayed when at least one expansion file unit is included in a partition.

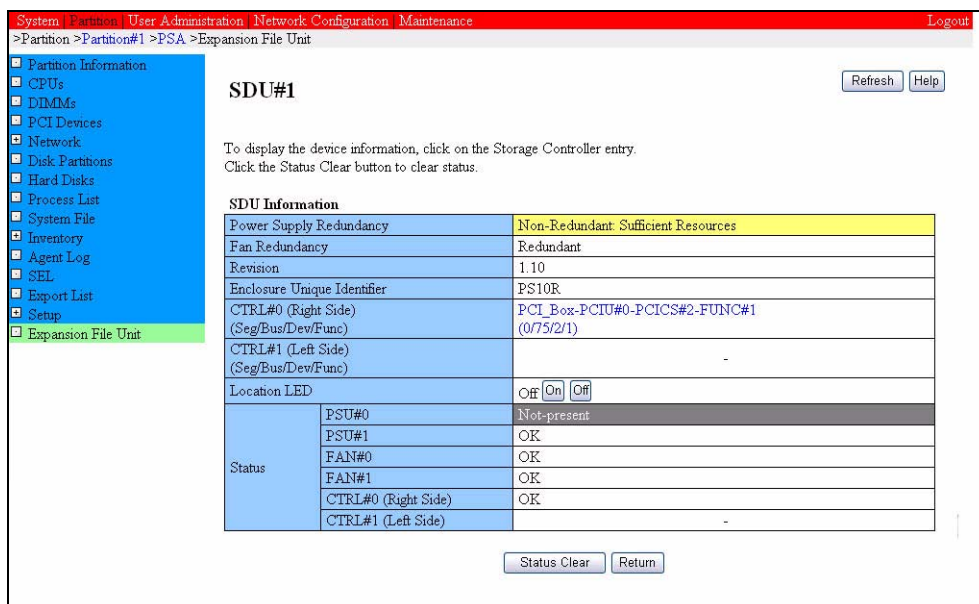


Figure 7.31 [SDU#x] window

Table 7.46 Display and setting items of [SDU#x] window

Item	Explanation
SDU Information	
Power Supply Redundancy	<p>Displays the redundant status of a power supply unit as follows:</p> <ul style="list-style-type: none">• Redundant: The PSU is redundant.• [Non-redundant:Sufficient Resource]: Although PSU redundancy is lost, there is a PSU necessary for system operation.• [Non-redundant:Insufficient Resource]: The redundancy is lost and a PSU necessary for system operation is not enough.• Unknown: Uncertain <p>It takes up to five minutes until a status change is reflected in the window display.</p> <p>Remarks: Click the [Status Clear] button to clear the status.</p>
Fan Redundancy	<p>Displays the redundant status of a fan as follows:</p> <ul style="list-style-type: none">• Redundant: The fan is redundant.• [Non-redundant:Sufficient Resource]: Although fan redundancy is lost, there is a fan necessary for system operation.• [Non-redundant:Insufficient Resource]: The redundancy is lost and there is no fan necessary for system operation.• Unknown: Uncertain <p>It takes up to five minutes until a status change is reflected in the window display.</p> <p>Remarks: Click the [Status Clear] button to clear the status.</p>
Revision	Displays a device version.
Enclosure Unique Identifier	Displays a device type
CTRL#0(Right Side) (Seg/Bus/Dev/Func)	<p>Displays the identification name of the storage controller on the connection route (right side) and the following numbers:</p> <ul style="list-style-type: none">• Segment No.• Path No.• Device No.• Function No. <p>If there is no connection to the storage controller, a hyphen [-] is displayed.</p>
CTRL#1(Left Side) (Seg/Bus/Dev/Func)	<p>Displays the identification name of the storage controller on the connection route (left side) and the following numbers:</p> <ul style="list-style-type: none">• Segment No.• Path No.• Device No.• Function No. <p>If there is no connection to the storage controller, a hyphen [-] is displayed.</p>

Item	Explanation
Location LED	<p>Displays the status of a location LED. The display status includes the following:</p> <ul style="list-style-type: none"> • On: ON • Off: OFF • Unknown: Uncertain <p>Click the [On] and [Off] buttons to turn the LED on and off.</p>
Status - PSU#0 Status - PSU#1	<p>Displays the status of each PSU as follows:</p> <ul style="list-style-type: none"> • OK: Normal • Warning: Warning status (A problem may occur in the future.) • Not-present: Not installed • Unknown: Uncertain <p>It takes up to five minutes until a status change is reflected in the window display.</p>
Status - FAN#0 Status - FAN#1	<p>Displays the status of each fan as follows:</p> <ul style="list-style-type: none"> • OK: Normal • Warning: Warning status (A problem may occur in the future.) • Not-present: Not installed • Unknown: Uncertain <p>It takes up to five minutes until a status change is reflected in the window display.</p>
Status - CTRL#0 (Right Side) Status - CTRL#1 (Left Side)	<p>Displays the status of each controller as follows:</p> <ul style="list-style-type: none"> • OK: Normal • Warning: Warning status (A problem may occur in the future.) <p>If there is no connection to the storage controller, a hyphen [-] is displayed.</p> <p>It takes up to five minutes until a status change is reflected in the window display.</p>

Table 7.47 Buttons of [SDU#x] window

Button	Explanation
Status Clear	<p>The [Status Clear] button is displayed only for setting privilege users.</p> <p>Click the [Status Clear] button to display the [Confirm Settings] dialog box.</p> <p>Click the [OK] button in the [Confirm Settings] dialog box to clear the hardware status (fan, power supply, and controller status) of an expansion file unit.</p> <p>When mail/REMCS/SNMPtrap notification is suppressed within a specified time by a notification suppression function, notification suppression is also canceled.</p>
Return	<p>Click the [Return] button to return to the [Expansion File Unit] window.</p>

(1) Menu operation

[Partition] → [Partition #x] → [PSA] → [Expansion File Unit] → [Unit]

(2) Window operation

- Clearing the hardware status of an expansion file unit
 - 1 Click the [Status Clear] button.

The [Confirm Settings] dialog box is then displayed.
 - 2 Click the [OK] button in the [Confirm Settings] dialog box.

The hardware status of the expansion file unit is then cleared.
 - 3 Click the [Return] button.

The [Expansion File Unit] window is then displayed.
- Not clearing the hardware status of an expansion file unit
 - 1 Click the [Return] button.

The [Expansion File Unit] window is then displayed.

(3) Error messages

If an ABEND occurs, the following messages are displayed in a dialog box:

Message	Meaning	Response
Error: Status Clear Error : ErrorCode=****	Status Clear failed. [ErrorCode] 3470: SDU Status Clear error	If the problem cannot be resolved by operating the window again in the menu operation in (1), contact the system administrator or a Fujitsu- certified service engineer.
Error: LED Set Error : ErrorCode=****	LED setting failed. [ErrorCode] 3471: LED control error	Check the status of the expansion file unit. Then reboot the PSA and operate the window again in the menu operation in (1). If the problem cannot be resolved, contact the system administrator or a Fujitsu-certified service engineer.

CHAPTER 8 CLI Operations

PSA is a system management application that runs on the OS for each partition on PRIMEQUEST series machines.

8.1 Basic CLI Operations

This section describes the CLI provided for OS commands.

Login to the OS is required for use of the CLI.

For details on the commands available to users depending on their user privileges, see [Table 8.1, "Commands."](#)

8.1.1 List of CLI commands

A list of PSA CLI commands is provided below. The letters in the Privilege column have the following meanings:

- Y: Requires the root privilege (Linux) or Administrator privilege (Windows).
- N: The command can be executed by general users.

Table 8.1 Commands

No	Command name	Privilege	Remarks	Linux	Windows
1	SAF-TE operation command	Y	Operates an SAF-TE unit and HDDs under its control.	Y	N
2	PSA start/stop command	Y	Starts and stops PSA.	Y	N (*1)
3	PSA troubleshooting data collection command	Y	Collects troubleshooting data for PSA.	Y	Y
4	Filter definition update commands	Y	Copies filter definitions to a PSA work directory or updates them.	Y	Y
5	Get local partition number command	N	Outputs the local partition number to the standard output.	Y	Y
6	Get serial number command	N	Outputs the serial number to the standard output.	Y	Y
7	SNMP security setting command	Y	Sets the host that is to accept SNMP packets.	N	Y
8	SAL/EFI firmware update command	Y	Reserves or cancels the SAL/EFI firmware update command.	Y	Y
9	Firmware update setup command	Y	Preparing for online firmware updating. This command must execute before SAL/EFI Firmware Update Command.	N	Y
10	Get firmware information command	Y	Collects firmware information.	Y	Y
11	DP operation command	Y	Adds or replaces an SB to a partition in which the OS is running. For details, see the <i>PRIMEQUEST 580A/540A DP (Dynamic Partitioning) Manual</i> (C122-E085EN).	Y	N

*1 Start: Click [Control Panel], [Management Tools], and [Services] in that order to start PSA Environment Control Service. Start PRIMEQUEST Server Agent and PRIMEQUEST PEMCommand Service.

Stop: Click [Control Panel], [Management Tools], and [Services] in that order to select PSA Environment Control Service, PRIMEQUEST Server Agent, and PRIMEQUEST PEMCommand Service.

8.2 SAF-TE Operation Command (diskctrl)

The diskctrl command displays SAF-TE units and HDDs under its control in a list, powers on and off HDDs, and turns on and off location LEDs, which indicate the HDD locations, according to the specified options.

Remarks:

- This command can be used only with Linux.
- The execution of this command requires the root privilege.
- Turning off an HDD for preventive replacement requires the following operation:
 - If the HDD has been mirrored by GDS, disconnect the HDD first.
 - If the HDD has not been mirrored by GDS, unmount the HDD.

Note:

- When hot-swapping or hot-adding an internal hard disk for a PRIMEQUEST IO Unit, simply inserting the hard disk will not allow power to be supplied to the hard disk. You always need to execute the pertinent SAF-TE operation command for power-on.
- RAID devices are excluded here. For information on how to replace RAID hard disks, refer to the pertinent manual for the RAID device.
- When you are executing this command for hard disk replacement, the following message may be output during power-on operation. For operation, you do not need to be concerned about this message.

```
kernel: mptscsih: ioc0: >> Attempting bus reset!  
(sc=e000004082adc480)  
kernel: mptbase: ioc0: IOCStatus(0x0048): SCSI Task  
Terminated
```

- If you insert a hard disk, turn on the power to the disk, realize that you have inserted the disk with the disk orientation incorrect, turn off the power, and re-insert the disk correctly, you must be careful so that you execute power-off at least 60 seconds or so after power-on. If the interval between the power-on and power-off is too short, the OS's HotPlug process, which is activated at power-on, may cause the following error message to be output:

```
kernel: Device sdb not ready.  
kernel: end_request: I/O error, dev sdb, sector 204706  
kernel: Buffer I/O error on device sdb1, logical block  
6396
```

- If you start PSA during SAF-TE operation command execution, PSA will not work normally. Start PSA after the command ends its processing.
For information on the operating procedure of this command, see Section 1.3, "Hot Swapping of Hard Disk" in the *PRIMEQUEST 500A/500/400 Series Reference Manual: Tools/Operation Information* (C122-E074EN).
- Using the SAF-TE operator command to execute multiple operations at the same time may cause the system to terminate abnormally. Retry executing this command after verifying that it is not being used to execute multiple operations at the same time.
- Manually execute the command below for PSA in the following cases:
 - Hot maintenance of a hard disk is performed when using SUSE.
 - Hot maintenance of a hard disk of GDS is performed when using RHEL.

```
/opt/FJSVpsa/sh/force_search.sh -a
```

(1) Synopsis

```
/opt/FJSVpsa/bin/diskctrl {-l|-e|-i|-o|-c} {Devicename|/dev/sgx/slotno}
```

(2) Options

{-l|-e|-i|-o|-c}

- l: Status display
Displays each SAF-TE unit and its subordinate HDDs recognized by the OS in a list.
- e: Power-off instruction
Turns off power to the HDD specified in [Devicename] or the slot of the SAF-TE unit specified in [/dev/sgx/slotno], and turns on the fault LED.
- i: Location display
Initiates blinking of the fault LED for the HDD specified in [Devicename] or the slot of the SAF-TE unit specified in [/dev/sgx/slotno].

- o:

Location turnoff

Turns off the fault LED for the HDD specified in [Devicename] or the slot of the SAF-TE unit specified in [/dev/sgx/slotno].
- c:

Power-on command

Turns on power to the slot of the SAF-TE unit specified in [/dev/sgx/slotno].
- [/dev/sgx/slotno]

Specifies the logical device name of the HDD subject to operation or the slot number of an SAF-TE unit:

Devicename:

Specify the logical device name of the OS.
(Example: /dev/sda if it is the first SCSI disk unit)

Note:

The logical device name is deleted when the power-off instruction (-e) is executed. Therefore, before specifying a logical device name, use the state indication option (-l) to check for that logical device in the operating system.

/dev/sgx/slotno:

Specify the slot number of sgx (SAF-TE device).
(Example: /dev/sg0/1 if it is the slot 1 of the sg0).
- (3) Example
- The following example displays all SAF-TE units in the OS and the status of their individual slots in a list:
- # /opt/FJSVpsa/bin/diskctrl -l
- | Display example | Description of status |
|---|--|
| /dev/sg0 | |
| 0 /dev/sda Power-On Fault LED-Off | <- Normal operation |
| 1 /dev/sdb Power-On Fault LED-Predicted Fault | <- Predicted fault |
| /dev/sg1 | |
| 0 --mount Not Activated Fault LED-Off | <- No HDD is inserted or powered on. |
| 1 --mount Power-Off Fault LED-On | <- Power-off |
| /dev/sg2 | |
| 0 /dev/sdd Power-on Fault LED-Identify | <- Location display on |
| 1 none | <- Empty slot |
| /dev/sg3 | |
| 0 none | * The number displayed under /dev/sgx indicates the slot number. |
| 1 none | |
- C122-E003-10EN

8-5

The following example powers off an HDD before the unit is replaced or removed:

```
# /opt/FJSVpsa/bin/diskctrl -e /dev/sda
```

The following example verifies the HDD mounting location before an additional HDD is installed:

```
# /opt/FJSVpsa/bin/diskctrl -i /dev/sg0/3
```

The following example turns off a fault LED that the user kept blinking to indicate the location for HDD replacement or addition:

```
# /opt/FJSVpsa/bin/diskctrl -o /dev/sg0/3
```

The following example powers on an HDD that the user installed for HDD replacement or addition:

```
# /opt/FJSVpsa/bin/diskctrl -c /dev/sg0/3
```

(4) Output messages

The following messages will be output at the time of abnormal termination.

Table 8.2 SAF-TE operation command (diskctrl) messages

Message	Meaning	Response
FJSVpsa: E 02150 diskctrl GDS access failed	GDS access failed.	Verify that the installed GDS is correctly configured.
FJSVpsa: E 02151 diskctrl Device access failed	Access to the specified device failed.	Retry. If an error recurs, check if the device is already offline because of failure. If sg does not exist under /dev, load the sg driver using modprobe and then retry.
FJSVpsa: E 02152 diskctrl no memory available	Insufficient memory	Check for free memory space availability. Terminate unnecessary processes and then retry.
FJSVpsa: E 02157 diskctrl Power-off failed	HDD power-off failed.	Retry. If an error recurs, delete or replace the HDD when the power to the partition is off.
FJSVpsa: E 02158 diskctrl Cannot blinking location-LED	LED blinking failed.	Retry. If an error recurs, the SAF-TE device may be faulty. Check for an sg error. Perform replacement or other action.

Message	Meaning	Response
FJSVpsa: E 02159 diskctrl Cannot clear location-LED	LED extinguishing failed.	Retry. If an error recurs, the SAF-TE device may be faulty. Check for an sg error. Perform replacement or other action.
FJSVpsa: E 02160 diskctrl Power-on failed	HDD power-on failed.	Check the slot number of the specified SAF-TE device and retry. If an error recurs, the SAF-TE device may be faulty. Check for an sg error. Perform replacement or other action.
FJSVpsa: E 02165 diskctrl Operation not permitted	No execution privilege.	Log in as the superuser and retry.
FJSVpsa: E 02166 diskctrl Stopped	The command being executed was canceled by Ctrl+C.	None
FJSVpsa: E 02167 diskctrl Invalid option	An invalid option was specified.	Specify correct options.
FJSVpsa: E 02169 diskctrl too few or more option	Incorrect number of command options.	Specify correct options.
FJSVpsa: E 02170 diskctrl Cannot stop HDD	HDD rotation stop failed.	Retry. If an error recurs, check whether the device is already offline because of failure.
FJSVpsa: E 02171 diskctrl Cannot get device information	Device information acquisition failed.	If the PRIMEQUEST 520A/520/420 has a partition using an IOX in the SAN boot environment, there is no objective HDD; therefore, this command cannot be used. In cases other than the above, check the HDD information that is recognized by the OS. If there is no sg under /dev, load the sg driver by using modprobe, and then retry the command.
FJSVpsa: E 02173 diskctrl sg device not found	sg (SAF-TE device) cannot be found.	If the PRIMEQUEST 520A/520/420 has a partition using an IOX in the SAN boot environment, there is no objective HDD; therefore, this command cannot be used. If the sg driver has not been loaded, load it with the modprobe command before retrying the operation. If the sg driver has been loaded, simply retry the operation.

Message	Meaning	Response
FJSVpsa: E 02174 diskctrl Device not found	The specified device is not found.	If the PRIMEQUEST 520A/520/420 has a partition using an IOX in the SAN boot environment, there is no objective HDD; therefore, this command cannot be used. In cases other than the above, check for devices and specify the correct device names. If there is no sg under /dev, load the sg driver by using modprobe, and then retry the command.
FJSVpsa: E 02175 diskctrl SAF-TE access failed (Read Enclosure Configuration)	A command on the SAF-TE device encountered an error.	Retry. If an error recurs, the SAF-TE device may be faulty. Check for an sg error. Perform replacement or other action.
FJSVpsa: E 02176 diskctrl SAF-TE access failed (Read Enclosure Status)	A command on the SAF-TE device encountered an error.	Retry. If an error recurs, the SAF-TE device may be faulty. Check for an sg error. Perform replacement or other action.
FJSVpsa: E 02177 diskctrl SAF-TE access failed (Read Device Slot Status)	A command on the SAF-TE device encountered an error.	Retry. If an error recurs, the SAF-TE device may be faulty. Check for an sg error. Perform replacement or other action.
FJSVpsa: E 02186 %s is busy. Please retry after a few minutes.	A power-off instruction was issued to a busy device.	Issue the power-off instruction later.
FJSVpsa: E 02187 internal error	An internal error occurred.	Contact a certified service engineer.
FJSVpsa: W 2188 diskctrl Can not power off GDS control disk.	An HDD configured in the GDS was specified. Power cannot be turned off.	Release the relevant HDD from GDS control and then turn off the power.

8.3 PSA Start/Stop Command (y30FJSVpsa)

The [y30FJSVpsa] command starts or stops the PSA.

Remarks:

- This command can be used only with Linux.
- The execution of this command requires the root privilege.
- Since PSA is a daemon program, it usually is automatically started at the time of boot.
- When PSA is stopped and restarted, all statuses contained in PSA are cleared.

Note: If you start PSA during SAF-TE operation command execution, PSA will not work normally. Start PSA after the command ends its processing.

(1) Synopsis

- RedHat

```
/sbin/service y30FJSVpsa {start | stop}
```

- SUSE

```
/etc/init.d/y30FJSVpsa {start | stop}
```

(2) Options

start | stop

start: Starts PSA.

stop: Stops PSA.

(3) Examples

The following example starts PSA:

- RedHat

```
# /sbin/service y30FJSVpsa start
```

- SUSE

```
# /etc/init.d/y30FJSVpsa start
```

The following example stops PSA:

- RedHat

```
# /sbin/service y30FJSVpsa stop
```

- SUSE

```
# /etc/init.d/y30FJSVpsa stop
```

(4) Exit status

0: Normal exit

>0: Abnormal exit

(5) Notes

If PSA is booted by the v30FJSVpsa command, the message shown below may be displayed. However, this message does not indicate any operational problem.

/bin/mknod: `/dev/watchdog': File exists

8.4 PSA Troubleshooting Data Collection Command (getopsa)

The `getopsa` command collects troubleshooting data for PSA. Specifically, it outputs the installation status of individual application packages, a list of files and modules, configuration files, internal logs, traces files, etc., to one compressed file.

Remarks: Execution of this command requires the root or Administrator privilege.

Linux

(1) Synopsis

```
/opt/FJSPsa/sh/getopsa output_filename
```

Specify the output destination file for the troubleshooting data after it is compressed, by using a full pathname in `[output_filename]`.

(2) Options

None

(3) Example

The following example outputs the troubleshooting data to a file in `[/tmp/dump/psa_dump]`:

```
# /opt/FJSPsa/sh/getopsa /tmp/dump/psa_dump
```

(4) Exit status

0: Normal exit

>0: Abnormal exit

Windows

(1) Synopsis

```
getopsa output_filename
```

Specify the output destination file for the troubleshooting data after it is compressed, by using a full pathname in [output_filename].

(2) Options

None

(3) Example

The following example outputs the troubleshooting data to a file in [\\tmp\\dump\\psa_dump]:

```
> getopsa C:\\temp\\dump\\psa_dump
```

(4) Exit status

None

8.5 Filter Definition Update Commands (fltcpy, fltupdate)

There are two filter definition update commands: fltcpy and fltupdates.

The fltcpy command copies the definitions from any directory containing filter definitions expanded from an archive file, etc., to the PSA work directory for updating filter definitions.

The fltupdate command copies the definitions from the PSA work directory for updating filter definitions to the operation directory to update the current filter definitions.

Remarks

- Execution of this command requires the root or Administrator privilege.
- Filter definitions cannot be updated while PSA is running.

(1) Synopsis

- Linux

```
/opt/FJSVpsa/sh/fltcpy [-f] [-d directory_name]  
/opt/FJSVpsa/sh/fltupdate [-f]
```

- Windows

```
fltcpy [-f] [-d directory_name]  
fltupdate [-f]
```

(2) Options

- fltcpy

[-f]

Forcibly updates the filter definitions in the work directory. This option is required for reverting to older filter definitions.

Without this option specified, the system does not update the filter definitions in the work directory if they are newer than those that would replace them in an update.

`[-d directory_name]`

Allows the user to specify a directory containing expanded filter definitions for an update.

If this option is omitted, the current directory will be used.

- fltupdate

`[-f]`

Forcibly updates the filter definitions in the operation directory. This option is required for reverting to older filter definitions.

Without this option specified, the system does not update the filter definitions in the operation directory if they are newer than those that would replace in an update.

(3) Examples

- Linux

- Ordinary update procedure

The following example stops PSA, executes the command for copying update files in the `[/tmp/filter]` directory containing an expanded file definition for an update, and restarts PSA after the `fltcpy` command is completed:

```
# /sbin/service y30FJSVpsa stop
# /opt/FJSVpsa/sh/fltcpy -d /tmp/filter
# /sbin/service y30FJSVpsa start *
```

* If the OS is restarted after execution of the `fltcpy` command, this procedure is not required because PSA is automatically started.

- Forced update procedure

The following example reverts to the older filter definition (a filter definition in the `[/tmp/filter]` directory):

```
# /sbin/service y30FJSVpsa stop
# /opt/FJSVpsa/sh/fltcpy -f -d /tmp/filter
# /opt/FJSVpsa/sh/fltupdate -f
# /sbin/service y30FJSVpsa start
```


- Windows

- Ordinary update procedure

The following example stops PSA, executes the command for copying update files in the [\\tmp\\filter] directory containing an expanded file definition for an update, and restarts PSA after the fltcpy command is completed:

```
> net stop "PRIMEQUEST Server Agent "  
> fltcpy -d C:\\temp\\filter  
> net start "PRIMEQUEST Server Agent "
```

* If the OS is restarted after execution of the fltcpy command, this procedure is not required because PSA is automatically started.

- Forced update procedure

The following example reverts to the older filter definition (a filter definition in the [\\tmp\\filter] directory):

```
> net stop "PRIMEQUEST Server Agent "  
> fltcpy -f -d /tmp/filter  
> fltupdate -f  
> net start "PRIMEQUEST Server Agent "
```

(4) Output messages

Filter definition update commands display the following messages:

Table 8.3 Filter definition update command (fltcpy, fltupdate) messages

Message	Meaning	Response
FJSVpsa: E 02700 fltupdate initialization failed	Initialization failed.	Verify that the login user is the superuser and that the PSA is correctly installed.
FJSVpsa: E 02701 fltupdate version file read error	Version read failed.	Verify that the login user is the superuser and that the PSA is correctly installed.
FJSVpsa: E 02702 fltupdate version file format error	A format error was detected in the version information.	Verify that the PSA is correctly installed.
FJSVpsa: E 02703 fltupdate internal error	An internal conflict occurred.	Contact a certified service engineer.
FJSVpsa: I 02704 fltupdate updating filter file	The filter version is to be updated.	None
FJSVpsa: I 02705 fltupdate unnecessary to update filter file	The filter version does not need to be updated.	None
FJSVpsa: E 02707 fltupdate failed to update filter file	Filter updating was not completed normally.	Verify that the login user is the superuser and that the PSA is correctly installed.
FJSVpsa: I 02708 fltupdate normally end	The filter was not updated normally.	None
FJSVpsa: E 02709 fltupdate failed to update filter file	Filter updating was not completed normally.	Verify that the login user is the superuser and that the PSA is correctly installed.
FJSVpsa: E 02710 fltout version file format error	An invalid value was specified for the version information.	An error possibly exists in the provided filter definition. Contact a certified service engineer.
FJSVpsa: E 02711 fltupdate fltout filter file open error	The filter file cannot be opened.	Verify that the login user is the superuser and that the PSA is correctly installed.
FJSVpsa: E 02712 fltout filter file read error	Filter information read failed.	Verify that the login user is the superuser and that the PSA is correctly installed.
FJSVpsa: E 02713 fltout filter file format error	An error was detected in the filter file.	An error possibly exists in the provided filter definition. Contact a certified service engineer.
FJSVpsa: E 02714 fltout initialization failed	Initialization failed.	Verify that the login user is the superuser and that the PSA is correctly installed.

Message	Meaning	Response
FJSVpsa: E 02716 fltupdate illegal version	The specified version value is outside the range.	An error possibly exists in the provided filter definition. Contact a certified service engineer.
FJSVpsa: E 02717 fltupdate illegal version	The specified version value is invalid.	An error possibly exists in the provided filter definition. Contact a certified service engineer.
FJSVpsa: E 02718 fltupdate cannot update filter file	The filter cannot be updated because PSA is active.	Stop PSA and then retry.

8.6 Get Local Partition Number Command (getpartid)

The getpartid command outputs a local partition number to the standard output.

Linux

(1) Synopsis

```
/opt/FJSPsa/sh/getpartid
```

(2) Options

None

(3) Example

```
$ /opt/FJSPsa/sh/getpartid  
1
```

(4) Exit status

0: Normal exit

>0: Abnormal exit

Windows

(1) Synopsis

```
getpartid
```

(2) Options

None

(3) Example

```
> getpartid  
1
```

(4) Exit status

0: Normal exit

>0: Abnormal exit

8.7 Get Serial Number Command (getserialno)

The getserialno command outputs a serial number to the standard output. The second line is the serial number for use in Europe.

Linux

(1) Synopsis

```
/opt/FJSVpsa/sh/getserialno
```

(2) Options

None

(3) Example

```
$ /opt/FJSVpsa/sh/getserialno
xxxxxxxxxxxxxx
yyyyyyyyyyyyyy
```

(4) Exit status

0: Normal exit

>0: Abnormal exit

Windows

(1) Synopsis

```
getserialno
```

(2) Options

None

(3) Example

```
> getserialno  
xxxxxxxxxxx  
yyyyyyyyyyy
```

(4) Exit status

0: Normal exit

>0: Abnormal exit

8.8 SNMP Security Setting Command (setsnmpsec)

The setsnmpsec command sets SNMP service security (sets the host that accepts SNMP packets). If the SNMP service security setting is "Accept SNMP packets from any host." you do not need to execute this command.

If the MMB IP address is changed after PSA installation in an environment where the SNMP service security setting is "Accept SNMP packets from any host," execute this command when the SNMP service security setting is changed from "Accept SNMP packets from any host" to "Accept SNMP packets from these hosts."

Remarks:

- This command can be used only with Windows.
- The execution of this command requires the Admin privilege.

(1) Synopsis

```
setsnmpsec
```

(2) Options

None

(3) Example

```
> setsnmpsec
```

(4) Output messages

- Normal termination

FJSVpsa : I 04200 Security setting for SNMP Service was completed.

- Abnormal termination

FJSVpsa : E 04201 Anerror occurred at the time of security setting for SNMP Service.

(5) Notes

After you execute this command, you need to restart the SNMP Service.

8.9 SAL/EFI Firmware Update Command (fjfwupdate)

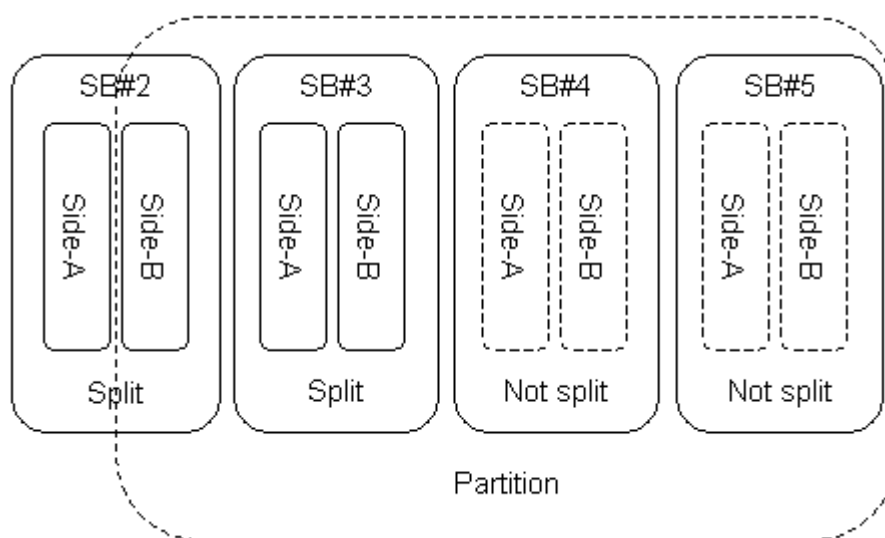
The fjfwupdate command reserves and cancels firmware updating, and displays an updating list. This command displays a log that is output during firmware updating.

When the OS is rebooted after reserving firmware updating, firmware updating automatically starts.

The environment needs to be set up before this command can be used.

Notes:

- Be careful when using the fjfwupdate command in an environment where the system disk is mirrored by PRIMEQUEST System Disk Mirror (PSDM) on Windows 2003 Server. In such cases, follow the procedure described in "Using the fjfwupdate command in an environment where the system volume is mirrored by PSDM (on Windows 2003 Server) " to temporarily disable mirroring by PSDM before executing the fjfwupdate command. Otherwise, the system disk will not be mirrored normally by PSDM.
- The execution of this command requires root privilege (or Administrator privilege for Windows).
- The targets of online firmware updating are
 - SAL firmware: All SB in the partition.
 - PQ 400 series: A-side only.
 - Other series: Both sides.
 - EFI firmware: Only Home IOU in the partitionExample) PRIMEQUEST 580



If the partition is configured as shown in the above figure, SAL firmware updating targets are SB#2 (Side-B), SB#3 (Side-A, Side-B), SB#4 (Side-A, Side-B), and SB#5 (Side-A, Side-B).

- The exit status is not the result of firmware updating. Refer to the result of firmware updating with the -l option.
- Only the last reservation for the same kind of firmware (SAL or EFI) prior to rebooting the OS becomes effective.
- The reservation is accepted only after the validity of the firmware binary file and the update tool is verified.
- Firmware updating is executed after the shutdown process is completed.
- At least 20MByte (to use for firmware binary file, update tool, log file and so on) of free space is required for the EFI partition.
- Do not operate the power control during updating firmware.
- Do not operate all on the directory for firmware update.
- When replacing the System Volume Disk [or Disk for firmware update] or uninstalling FJSVpsa, delete the EFI boot option for this command by following the procedure below. If you deleted the boot option once, the Setup sequence needs to be followed again.

- **For deletion from the EFI Boot Manager**

Select the following items

Boot Option Maintenance Menu → Delete Boot Option(s) →

PRIMEQUEST Online Firmware Update (don't select)

- **For deletion from the OS**

[Linux]

Confirm the boot option Number of "PRIMEQUEST Online Firmware Update (don't select)" with the "efibootmgr" command. Then delete this boot option.

```
#efibootmgr
BootCurrent: 0000
Timeout: 10 seconds
BootOrder: 0000,ffff,fff0,fff2,0008,0009
Boot0000* RHEL4 U2
Boot0008* PRIMEQUEST Online Firmware Update (don't select) <- target
bootoption
Boot0009* sadump (DON'T SELECT!)

#efibootmgr -b 0008 -B , <- specify the target bootoption's four digit
hexadecimal character string
BootCurrent: 0000
Timeout: 10 seconds
BootOrder: 0000,ffff,fff0,fff2,0009
Boot0000* RHEL4 U2
Boot0009* sadump (DON'T SELECT!)

#
```

[Windows]

Confirm the boot option Number of "PRIMEQUEST Online Firmware Update (don't select)" with the "bootcfg" command. Then delete this boot option.

```
C:\>bootcfg

Boot Options
-----
Timeout:          30
Default:          \Device\HarddiskVolume3\WINDOWS
CurrentBootEntryID: 1

Boot Entries
-----

Boot entry ID:      1
OS Friendly Name:   Windows Server 2003, Datacenter
OSLoadOptions:      /noexecute=optout /redirect
BootFilePath:       \Device\HarddiskVolume1\EFI\Microsoft\WINNT50.1\
ia64ldr.efi
OsFilePath:         \Device\HarddiskVolume3\WINDOWS

Boot entry ID:      2
OS Friendly Name:   RHEL4 GA

Boot entry ID:      3
OS Friendly Name:   RedHat U2 GA

Boot entry ID:      4
OS Friendly Name:   DVD/Acpi(PNP0A03,0)/Pci(1D|1)/Usb(0, 0)/Usb(1, 0)

Boot entry ID:      5
OS Friendly Name:   Network/Acpi(PNP0A03,0)/Pci(1E|0)/Pci(8|0)/
Mac(000B5D6E015E)

Boot entry ID:      6
OS Friendly Name:   EFI Shell [Built-in]

Boot entry ID:      7
OS Friendly Name:   PRIMEQUEST Online Firmware Update (don't select)

C:\>bootcfg /Delete /ID 7 <- specify the target bootoption's decimal
character string
SUCCESS: Specified boot entry has been deleted.
```

- [Windows]

- Firmware updating cannot be reserved when there is no remainder in the drive letter.
- The firmware updating process is executed following the occurrence of reset by Panic, etc.

Using the fjfwupdate command in an environment where the system volume is mirrored by PSDM (on Windows 2003 Server)

Be careful when using the fjfwupdate command in the environment described below. In such cases, follow the procedure below to temporarily disable mirroring by PSDM before executing the fjfwupdate command. Otherwise, the system disk will not be mirrored normally by PSDM.

- Applicable environment

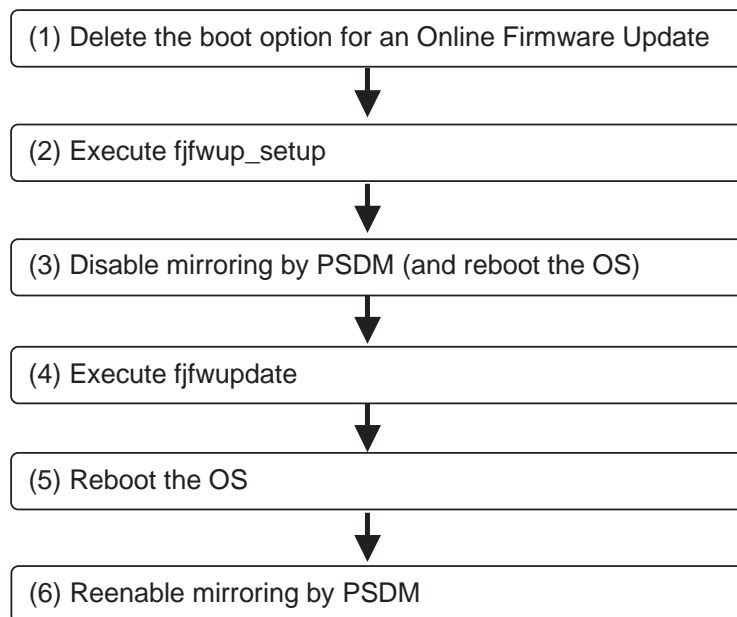
Cabinet: Every PRIMEQUEST model

OS: Windows 2003 Server

Other: Environment where the system disk is mirrored by PSDM

- Procedure

To update SAL/EFI firmware in an environment that satisfies the above conditions, follow the procedure below.



- 1 Delete the boot option "PRIMEQUEST Online Firmware Update (don't select)" as instructed in "For deletion from the OS" under "Note" in [Section 8.9](#).
- 2 Execute the PSA command "fjfwup_setup" to prepare for the firmware update.

```
> fjfwup_setup
```

- 3 Execute the PSDM commands "sdxinfo" and "sdxsysdisk" to temporarily system disk mirroring. To temporarily disable disk mirroring, start Disk Administrator, and confirm the disk number of the disk containing the EFI system partition. Execute the sdxinfo -D command. Find the line on which the value in the DEVNAME column is equal to the confirmed disk number. Then, record the group name displayed in the GROUP column on that line. The group name indicates the group whose mirroring is to be removed. Also, record the DEVNAME value on all lines on which the GROUP value is the same as the recorded group name. The DEVNAME values indicate the disks belonging to the group whose mirroring is to be disabled.

Example: The system disk number confirmed with Disk Administrator is 0.

```
>sdxinfo -D
```

OBJ	NAME	TYPE	GROUP	DEVNAM	DEVBLKS	STATUS
----	-----	-----	-----	-----	-----	-----
disk	Disk0	mirror	Group1	0	35291136	VALID
disk	Disk1	mirror	Group1	3	35291136	VALID
disk	Disk2	mirror	Group1	4	35291136	VALID
disk	Disk3	mirror	Group2	5	35291136	VALID
disk	Disk4	mirror	Group2	7	35291136	VALID

In the above example, the group whose mirroring is disabled is Group1, and the disks belonging to the group are disks 0, 3, and 4.

The sdxsysdisk -R command with the recorded group name specified is executed to disable mirroring of the group.

Example: Disabling mirroring of Group1

```
>sdxsysdisk -R -g Group1
```

The OS is automatically rebooted after the command is executed. If the OS is not rebooted automatically, reboot the OS manually.

- 4 After the OS is rebooted, execute the PSA command "fjfwupdate" to prepare for the firmware update.

```
>fjfwupdate [-sal|-efi] updatetool firmwarefile
firmware updating (firmwarefile) is reserved.
Reboot is needed for updating firmware.
```

5 Reboot the OS, and update the firmware.

Start the firmware update after the OS shutdown. The original OS is booted after the firmware update is completed.

After the OS is booted, execute the `fjfwupdate` command to check the firmware update results.

```
> fjfwupdate -l
```

6 Reenable the disk mirroring disabled in step 3 in the system disk mirror system by executing the `sdxsysdisk` command to restore the state confirmed in step 3.

Use Disk Administrator to find the disk number of the current system disk. The disk number of the current system disk is displayed by Disk Administrator. The current system disk is the disk that has the C drive.

Among the disk numbers recorded in step 3, format each disk whose disk number is not the disk number of the current system disk .

Example: Disk numbers 0, 3, and 4 were recorded in step 3 and the current system disk is disk 0. (Format disks 3 and 4.)

```
> diskpart
diskpart> select disk 3
diskpart> clean
diskpart> convert gpt
diskpart> select disk 4
diskpart> clean
diskpart> convert gpt
diskpart> exit
```

Reenable mirroring by PSDM with the current system disk (disk 0) as the copy source.

Example: Disk numbers 0, 3, and 4 were recorded in step 3, and the current system disk is disk 0.

```
> sdxsysdisk -M -p 0:keep,3,4
```

(1) Synopsis

```
# /opt/FJSVpsa/sh/fjfwupdate [ -sal | -efi ] <tool>  
<firmbinfile>  
# /opt/FJSVpsa/sh/fjfwupdate -c <listnum>  
# /opt/FJSVpsa/sh/fjfwupdate -p  
# /opt/FJSVpsa/sh/fjfwupdate -l
```

(2) Options

[-sal | -efi] <tool> <firmbinfile>: Reserve firmware updating

This option reserves firmware updating. When you use this option, you should specify the update tool (<tool>) and firmware binary file (<firmbinfile>). You can use both the absolute path and the relative path, when you specify the filename. This option verifies the validity of the specified update tool and the firmware binary file.

-p: Display reserving list

This option displays the reservation list reserved with the [-sal | -efi] options.

-c <listnum>: Cancel the reservation

This option cancels the reservation set with the [-sal | -efi] options. When you use this option, you should specify the reservation number (<listnum>) displayed by the -p option.

-l: Display the latest execution log

This option displays the latest execution log.

This log is a firmware update log or a firmware application status log.

(3) Exit status

This is not the result of firmware updating but the result of command execution.

0: Normal exit

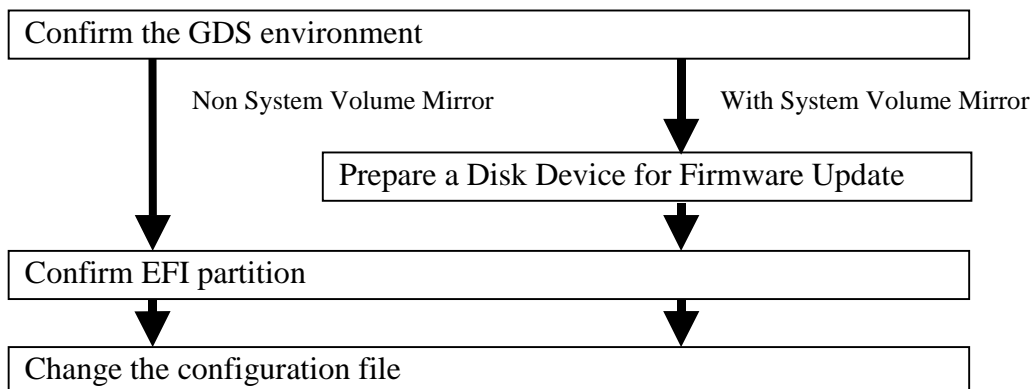
>0: Abnormal exit The fjfwupdate command displays an error message.

(4) Setup

This command is included in FJSVpsa package.

After installing FJSVpsa, set up the environment in accordance with the instructions below.

1 Linux



7 Confirm the GDS environment

If the system has the System Volume Mirror configuration set with PRIMECLUSTER GDS, the setup operation in step 2 needs to be executed. In other cases, confirm the EFI Partition and follow the instructions in step 3.

8 Prepare the disk partition for Firmware Update

If the system has the System Volume Mirror configuration set with PRIMECLUSTER GDS, mount the disk partition that is not included with GDS Mirroring.

The disk partition must meet the following conditions.

Disk label: gpt

type: vfat

size: 20 M byte or more

Create the new partition with the "parted" command and execute formatting with the "mkfs.vfat" command.

After creating the disk partition, add the following information on "/etc/fstab".

```
# This file is edited by fstab-sync - see 'man fstab-sync' for details
/dev/sfdsk/RootClass/dsk/rootVolume / ext3 defaults 1 1
/dev/sfdsk/RootClass/dsk/efiVolume /boot/efi vfat defaults 0 0
none /dev/pts devpts gid=5,mode=620 0 0
none /dev/shm tmpfs defaults 0 0
/dev/sfdsk/RootClass/dsk/homeVolume /home ext3 defaults 1 2
none /proc proc defaults 0 0
none /sys sysfs defaults 0 0
/dev/sfdsk/RootClass/dsk/usrVolume /usr ext3 defaults 1 2
/dev/sfdsk/RootClass/dsk/varVolume /var ext3 defaults 1 2
/dev/sfdsk/RootClass/dsk/swapVolume swap swap defaults 0 0
# add information
/dev/sdc1 /mnt/OLFU vfat defaults 0 0
```

Mount the disk partition with the following command.

```
# mount -a
```


9 Confirm the EFI partition

Confirm the device special file name of the EFI partition with the following command.

```
# df -t vfat
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/sda1        102182    10916    91266  11% /boot/efi
```

If the mounted device on /boot/efi is /dev/sda1, the other procedure is not required for Setup.

If the device special file name is not formatted as

```
/dev/sd<x><n>
<x>: one or more lowercase alphabetic characters
<n>: one or more decimal numeric characters
```

Prepare a disk partition following the instructions in step 2.

10 Change the configuration file

If you prepare a disk partition in accordance with the instructions in step 2 or if the device special name of the EFI partition is not the equivalent of /dev/sda1, change the configuration file as follows.

Configuration file: /etc/opt/FJSVpsa/local/lofu.conf

Change item: DEVICE.

DEVICE=/dev/sdd1 ->delete # comment and assign the EFI partition #PATH=/boot/efi/efi/fujitsu/fjfwupdate
--

The "PATH" Item written in the configuration file does not need to be assigned. If you want to use the subdirectory of the EFI partition, you have to set the absolute path name.

Note: The configuration file is read only once when you first execute this command. After that, this command, when executed, does not read the configuration file. If you want to change the setting, check [REMARKS].

2 Windows

The "fjfwup_setup" command needs to be executed before using this command.

For details see "Firmware Update Setup Command (Windows Only)."

(5) Examples

- Examples of LINUX

- Initial setting (when no changes are made to the Configuration file).

```
#df -t vfat
Filesystem            1K-blocks      Used Available Use% Mounted on
/dev/sda1              102182        10916      91266   11% /boot/efi
#
```

- Initial setting (when changes are made to the Configuration file)

```
#df -t vfat
Filesystem            1K-blocks      Used Available Use% Mounted on
/dev/sda7              102182        10916      91266   11% /boot/efi

#vi /etc/opt/FJSVpsa/local/olfu.conf

DEVICE=/dev/sda7
#PATH=/boot/efi/efi/fujitsu/fjfwupdate

#
```

- Initial setting (In case of System Volume Mirror by GDS).

```
(/dev/sdc is the new disk)
#parted /dev/sdc
(parted) mkpartfs primary fat32 0 200
(parted) p
Disk geometry for /dev/sdc: 0.000-70092.996 megabytes
Disk label type: gpt
Minor  Start      End          Filesystem  Name      Flags
1       0.017        256.473    fat16

#mkfs.vfat
mkfs.vfat 2.8 (28 Feb 2001)

#vi /etc/fstab

/dev/sdc1 /mnt/OLFU  vfat      defaults    0 0

#
#mount -a
#df -t vfat
Filesystem            1K-blocks      Used Available Use% Mounted on
/dev/sfdsk/RootClass/dsk/efiVolume
                        102182        13008      89174   13% /boot/efi
/dev/sdc1              262464          0      262464    0% /mnt/OLFU

#vi /etc/opt/FJSVpsa/local/olfu.conf

DEVICE=/dev/sdc1
#PATH=/boot/efi/efi/fujitsu/fjfwupdate

#
```

The following are examples of execution results after downloading the firmware binary file and update tool.

● Normal operation.

```
# ls
EFI0109+head.bin  SAL0113+head.bin  salupdate.efi

# /opt/FJSPVpsa/sh/fjfwupdate -sal salupdate.efi SAL0113+head.bin
firmware updating (SAL0113+head.bin) is reserved
reboot is needed for updating firmware

# /opt/FJSPVpsa/sh /fjfwupdate -p
No.      tool      bin
1        salupdate.efi  SAL0113+head.bin

# /opt/FJSPVpsa/sh/fjfwupdate -efi salupdate.efi EFI0109+head.bin
firmware updating (EFI0109+head.bin) is reserved
reboot is needed for updating firmware

# /opt/FJSPVpsa/sh/fjfwupdate -p
No.      tool      bin
1        salupdate.efi  SAL0113+head.bin
2        salupdate.efi  EFI0109+head.bin

# /opt/FJSPVpsa/sh/fjfwupdate -c 1
firmware updating (SAL0113+head.bin) is canceled

# /opt/FJSPVpsa/sh/fjfwupdate -p
No.      tool      bin
1        efiupdate.efi  EFI0109+head.bin

# /opt/FJSPVpsa/sh/fjfwupdate -sal salupdate.efi SAL0113+head.bin
firmware updating (SAL0113+head.bin) is reserved
reboot is needed for updating firmware

# /opt/FJSPVpsa/sh/fjfwupdate -p
No.      tool      bin
1        efiupdate.efi  EFI0109+head.bin
2        salupdate.efi  SAL0113+head.bin

# /optFJSPVpsa/sh/fjfwupdate -l
New firmware is applicable now
# reboot
.....
# /optFJSPVpsa/sh/fjfwupdate -l
03/31/2006
13:59:04
Online Firmware Update Script Start
03/31/2006
13:59:04
SAL firmware update start

<SAL Version>
Current SAL Version = 1.12
New SAL Version = 1.13
  *snip*
SAL firmware update end
03/31/2006
14:05:07
EFI firmware update start

<EFI Version>
Current EFI Version = 1.8
New EFI Version = 1.9
  *snip*
EFI firmware update end
03/31/2006
14:08:32
Online Firmware Update Script End
```

- **Illegal operation (Specifying the SAL firmware binary file in the -efi option).**

```
# /opt/FJSVpsa/sh/fjfwupdate -efi efiupdate.efi SAL0113+head.bin
E xxx firmware header error (firmtype):SAL0113+head.bin
```

- **Overlapping Reservation (EFI firmware updating).**

```
# /opt/FJSVpsa/sh/fjfwupdate -sal salupdate.efi SAL0113+head.bin
# /opt/FJSVpsa/sh/fjfwupdate -p
No.      tool      bin
1        alupdate.efi  SAL0113+head.bin

# /opt/FJSVpsa/sh/fjfwupdate -sal salupdate.efi SAL0114+head.bin
$ /opt/FJSVpsa/sh/fjfwupdate -p
No.      tool      bin
1        salupdate.efi SAL0114+head.bin
```

- **Examples of WINDOWS**

- **Execution of fjfwup_setup.**

```
C:\update> fjfwup_setup
Reservation for adding bootoption was completed

#reboot

.....

#on EFI Shell reset automatically
startup.nsh> echo -off
resetting...

#on OS
C:\update> fjfwup_setup
I) already added bootoption
```

The following are examples of execution results after downloading the firmware binary file and update tool.

● Normal operation

```

C:\update>dir
Volume in drive C has no label.
Volume Serial Number is 0CB9-1257

Directory of C:\update

04/04/2006  11:54 AM    <DIR>          .
04/04/2006  11:54 AM    <DIR>          ..
01/12/2006  05:24 PM             4,194,368  EFI0109+head.bin
03/11/2006  11:26 AM             4,194,368  SAL0114+head.bin
03/23/2006  10:27 PM             395,776  salupdate.efi
               3 File(s)             8,784,512 bytes
               2 Dir(s)  40,019,918,848 bytes free

C:\update>fjfwupdate -sal salupdate.efi SAL0114+head.bin
firmware updating (SAL0114+head.bin) is reserved
reboot is needed for updating firmware

C:\update> fjfwupdate -p
No.      tool      bin
1        salupdate.efi  SAL0114+head.bin

C:\update>fjfwupdate -efi salupdate.efi EFI0109+head.bin
firmware updating (EFI0109+head.bin) is reserved
reboot is needed for updating firmware

C:\update> fjfwupdate -p
No.      tool      bin
1        salupdate.efi  SAL0114+head.bin
2        salupdate.efi  EFI0109+head.bin

C:\update> fjfwupdate -c 1
firmware updating (SAL0114+head.bin) is canceled

C:\update> fjfwupdate -p
No.      tool      bin
1        efiupdate.efi  EFI0109+head.bin

C:\update>fjfwupdate -sal salupdate.efi SAL0114+head.bin
firmware updating (SAL0114+head.bin) is reserved
reboot is needed for updating firmware

C:\update> fjfwupdate -p
No.      tool      bin
1        efiupdate.efi  EFI0109+head.bin
2        salupdate.efi  SAL0114+head.bin

```

● Normal operation (continued)

```
C:\update> fjfwupdate -p
No.      tool      bin
1        efiupdate.efi  EFI0109+head.bin
2        salupdate.efi  SAL0114+head.bin

C:\update> fjfwupdate -l
New firmware is applicable now

#execute reboot

.....

C:\update> fjfwupdate -l
03/31/2006
13:59:04
Online Firmware Update Script Start
03/31/2006
13:59:04
SAL firmware update start

<SAL Version>
same as LINUX
```

● Illegal operation (Specifying the SAL firmware binary file in the -efi option)

```
C:\update> fjfwupdate -efi efiupdate.efi SAL0114+head.bin
firmware header error (firmtype): C:\update\SAL0114+head.bin
```

● Overlapping Reservation (EFI firmware updating)

```
C:\update> fjfwupdate -sal salupdate.efi SAL0113+head.bin
Firmware updating (SAL0114+head.bin) is reserved
Reboot is needed for updating firmware

C:\update> fjfwupdate -p
No.      tool      bin
1        salupdate.efi  SAL0113+head.bin

C:\update> fjfwupdate -sal salupdate.efi SAL0114+head.bin
firmware updating (SAL0113+head.bin) is canceled
firmware updating (SAL0114+head.bin) is reserved
reboot is needed for updating firmware

C:\update> fjfwupdate -p
No.      tool      bin
1        salupdate.efi  SAL0114+head.bin
```

(6) Output messages

[The fjfwupdate command displays the following messages:]

Message	Meaning	Response
E) firmware header error (%s1):%s2	%s1:signature or firmtype or checksum or chassis type %s2:firmbinfile A format error was detected in a firmware binary file.	%s1: signature or checksum or crc16 Check the validity of the firmware binary file. %s1: firmtype Check the type of firmware. %s1: chassystype Check the acceptable model of the firmware binary file. %s1: Not listed above Contact a certified service engineer.
E) tool header error (%s1):%s2	%s1:signature or format %s: tool A format error was detected in the update tool.	Check the adaptability to the online firmware updating of the tool.
E) operation is not permitted	No execution privilege.	Log in as the superuser and retry.
E) no space left on %s	%s : directory name No space left on %s.	Check for free disk space availability.
E) invalid option :%s	%s : Invalid option An invalid option was specified.	Specify correct option.
E) too few or more argument	Incorrect number of command options.	Specify correct option.
E) can't find reservation No. :%d	An invalid reservation No. was specified.	Check the reservation No. with -p option. And specify correct reservation No.

Message	Meaning	Response
E) internal error :%s	%s : Detail of error An internal error has occurred.	%s: machine.conf Check the status of FJSVpsa service. %s: /etc/opt/FJSVpsa/local/olfu.conf Check for the existence of the file. %s: olfu_set.conf An Illegal boot option exists. Delete the boot option for the online firmware update according to the procedure in remarks. %s: no psa env path Check the "FJSVpsa_INSTALLPATH" environment variable. %s: Not listed above Contact a certified service engineer.
E) no such file or directory:%s	%s:File or directory name Can't find the file or directory.	Specify the correct filename or directory name.
I) firmware updating (%s) is reserved	%s:Firmware binary file name Reservation was completed.	None
I) firmware updating (%s) is canceled	%s:Firmware binary file name Reservation was canceled.	None
E) %s is not a vfat device or not mounted	%s:DEVICE setting value A device specified in the configuration file is not of vfat format or cannot mount. Linux only	Check the format(vfat) of the specified device in the setting file, and mount the device.
E) %s1 is not a vfat filesystem or not on %s2	%s1:PATH setting value %s2:DEVICE setting value A device specified in the configuration file is not of vfat format or does not exist. Linux only	Check the format (vfat) of the specified path in the setting file, or Check for the existence of the path on the device.

Message	Meaning	Response
E) illegal setting (/etc/opt/FJSVpsa/local/olfu.conf)	Setting of configuration file is invalid. Linux only	Check the validity of the setting file.
E) %s is not a block device	%s:DEVICE setting value A device specified in the configuration file is not a block device. Linux only	Check the type (block device) of the specified device.
E) fjfwup_setup command is needed before execute this command	Windows only	Execute the "fjfwup_setup" command.
E) no empty drive. Please make empty drive to mount EFI partition	Windows only	Check for free drive letter availability.

[fjfwupdate -p option message]

Message	Meaning	Response
there is no reservation	-	None

[fjfwupdate -l option message]

Message	Meaning	Response
New firmware is applicable now	A new firmware version has become available in between normal firmware update periods and can be applied immediately. Execute the firmware update after a OS reboot.	None
Internal error (%s)	%s:detail of error Unable to execute firmware update.	Contact a certified service engineer

[Other Problems]

Problem	Recovery
The message "Paused - press any key to continue" was output before the firmware updating started. (Linux Only)	<ol style="list-style-type: none"> 1. Press any key and display the EFI boot option list. 2. Select the OS Boot Option 3. Execute the "efibootmgr" command and check the item of "BootNext" #efibootmgr BootNext: 0008 <- check the number BootCurrent: 0000 Timeout: 10 seconds BootOrder: 0000,fffe,fff0,fff2,0008,0009 Boot0000* RHEL4 U2 Boot0008* PRIMEQUEST Online Firmware Update (don't select) Boot0009* sadump (DON'T SELECT!) 4. Delete the BootNext flag with "efibootmgr -N" #efibootmgr -N 0008 <- specify the target number BootCurrent: 0000 Timeout: 10 seconds BootOrder: 0000,fffe,fff0,fff2,0008,0009 Boot0000* RHEL4 U2 Boot0008* PRIMEQUEST Online Firmware Update (don't select) Boot0009* sadump (DON'T SELECT!) 5. Delete the Boot Option for online firmware updating. See [Remarks]. 6. Retry setup sequence. See (4), "Setup."
OS was rebooted after the firmware updating was reserved, but the firmware update was not executed and the OS started. (Windows Only)	<ol style="list-style-type: none"> 1. Delete the Boot Option for online firmware updating. See [Remarks]. 2. Retry "fjfwup_setup" command ,and reboot OS.

8.10 Firmware Update Setup Command (fjfwup_setup)

Preparing for online firmware updating.

This command must be executed once after OS installation.

After this command is executed, reboot is required to add the boot option on the EFI.

Note:

- Operation with 14 vfat disk partitions or more is not guaranteed.
- This command can be used only with Windows.
- The execution of this command requires the Administrator privilege.
- At least 20MByte (to use for update script, log file and so on) of free space is required for the EFI partition.
- The firmware updating can't be reserved when there is no remainder in the drive letter.
- This command cannot be canceled.

(1) Synopsis

#fjfwup_setup

(2) Options

None

(3) Exit Status

This is not the result of adding the boot option on the EFI but the result of command execution.

0: Normal exit

>0: Abnormal exit. The fjfwup_setup command displays an error message.

(4) Examples

This command adds the boot option on the EFI for the Firmware update command. Follow the procedure below.

1 Execute fjfwup_setup command(on the Command Prompt in OS)

→ following message is displayed

I) reboot is required to add the boot option

2 Rebooting the OS

→ Adding the boot option on the EFI Shell and reset, and then rebooting the OS.

3 Execute ffwup_setup to confirm the result of adding the boot option.

following message is displayed.

I) already added boot option

(5) Output messages

Message	Meaning	Response
E) no empty drive please make empty drive to mount EFI partition	-	Check for free drive letter availability.
E) no space left on %s	%s: EFI Partition or %FJSVpsaInstallPass%	Check for free disk space availability.
E) internal error :%s	%s :detail of error	%s: no psa env path Check the "FJSVpsa_INSTALLPATH" environment variable. %s: no EFI option Check the normal EFI Shell boot option. %s: Not listed above Contact a certified service engineer.
I) reservation for adding bootoption was completed	-	None
I) reboot is needed for adding bootoption	-	None
I) already added bootoption %s	%s setup operation executed result. It is displayed only once after setup operation.	None

[Other Problems]

Problem	Recovery
Paused at the EFI Shell during reboot.	<ol style="list-style-type: none"> 1. Change the boot order of "EFI Shell [Built-in]" from top to bottom with the "Boot Option Maintenance Menu" on the EFI Menu. 2. Select OS Boot Option to boot the OS. See [NOTE] to isolate the cause.

8.11 Get Firmware Information Command (getfwinfo)

The getfwinfo command collects the model name and serial number of the cabinet, and the firmware version numbers, and then outputs the information collected to a text-format file. Firmware information is collected from all SBs, IO Units, IOXs, and MMBs mounted in the cabinet.

Remarks: Executing this command requires root or Administrator privilege.

(1) Synopsis

- Linux

```
/opt/FJSVpsa/sh/getfwinfo {output_filename}
```

[output_filename] specifies the name of the output file.

- Windows

```
> getfwinfo {output_filename}
```

[output_filename] specifies the name of the output file.

(2) Options

None

(3) Examples

- Linux

The command below outputs firmware information to the /tmp/fwinfo.txt file.

```
#/opt/FJSVpsa/sh/getfwinfo /tmp/fwinfo.txt
```

- Windows

The command below outputs firmware information to the C:\tmp\fwinfo.txt file.

```
> getfwinfo C:\tmp\fwinfo.txt
```

(4) Output file format

The firmware information on mounted SBs, IO Units, IOXs, and MMBs is output in the following format:

- Date - 2006/05/08 15:30:06	←	Date of command execution
- Machine Info - Part Number =MC5A0P111	←	Model name
Serial Number=xxxxxxxxxxx yyyyyyyyyyyy	←	Serial number ("yyyyyyyyyyyy" is output only when a serial number for the European market is set.)
- Firmware Version Info - [SB#0-A] PAL_A/B = 1.27/2.15	←	PAL/SAL firmware version number
[SB#0-A] SAL_A/B = 1.15/1.15		
[SB#0-B] PAL_A/B = - / -		
[SB#0-B] SAL_A/B = - / -		
[SB#1-A] PAL_A/B = 1.27/2.15		
[SB#1-A] SAL_A/B = 1.15/1.15		
[SB#1-B] PAL_A/B = - / -		
[SB#1-B] SAL_A/B = - / - (Syncopated)		
[IOU#0-BMM#0] BMC = 1.19	←	BMC firmware version number
[IOU#0-BMM#0] EFI = 1.10.1.5	←	EFI version number
[IOU#1-BMM#0] BMC = 1.19		
[IOU#1-BMM#0] EFI = 1.10.1.5 (Syncopated)		
[MMB#0] MMB = 1.20	←	MMB firmware version number
[MMB#1] MMB = 1.20		

(5) Exit status

0: Normal end

1: Abnormal end

One of the following messages is displayed if the command ends abnormally:

Table 8.4 Get firmware information command (getfwinfo) messages

Message	Meaning	Response
No filename	Output file is not specified.	Specify an output file.
Open failed : <i>filename</i>	Creation of specified output file failed.	The full path name of the output file is invalid or a file with the same name as the specified file name is found. Change the full path name of the output file and retry the command.
firmver internal error	An internal processing error occurred.	Retry the command. If this message is displayed again, contact a Fujitsu certified service engineer.
IPMI driver open error	Access to the IPMI driver failed.	
IPMI access failed	Information collection by IPMI failed.	

(6) Notes

- If PSA and SNMP are stopped when this command is executed, the command displays the message below without the model name and serial number output. However, the command continues processing to collect firmware version numbers.
Message displayed: SNMP access failed
- If this command is executed with the PRIMEQUEST 520A/520/420, the MMB is displayed as MMB#0 and the IOX as IOU#1.
- Executing this command for the PRIMEQUEST 580A/540A/580/540/480/440 on which either MMB is not mounted outputs "-" as the MMB firmware version number.
- Executing this command when no SB is split outputs "-" as the firmware version number of the PAL or SAL on portion B of each SB.

Part V EFI

CHAPTER 9 EFI Overview

Figure 9.1 outlines the PRIMEQUEST extensible firmware interface (EFI) of firmware that boots the operating system (OS).

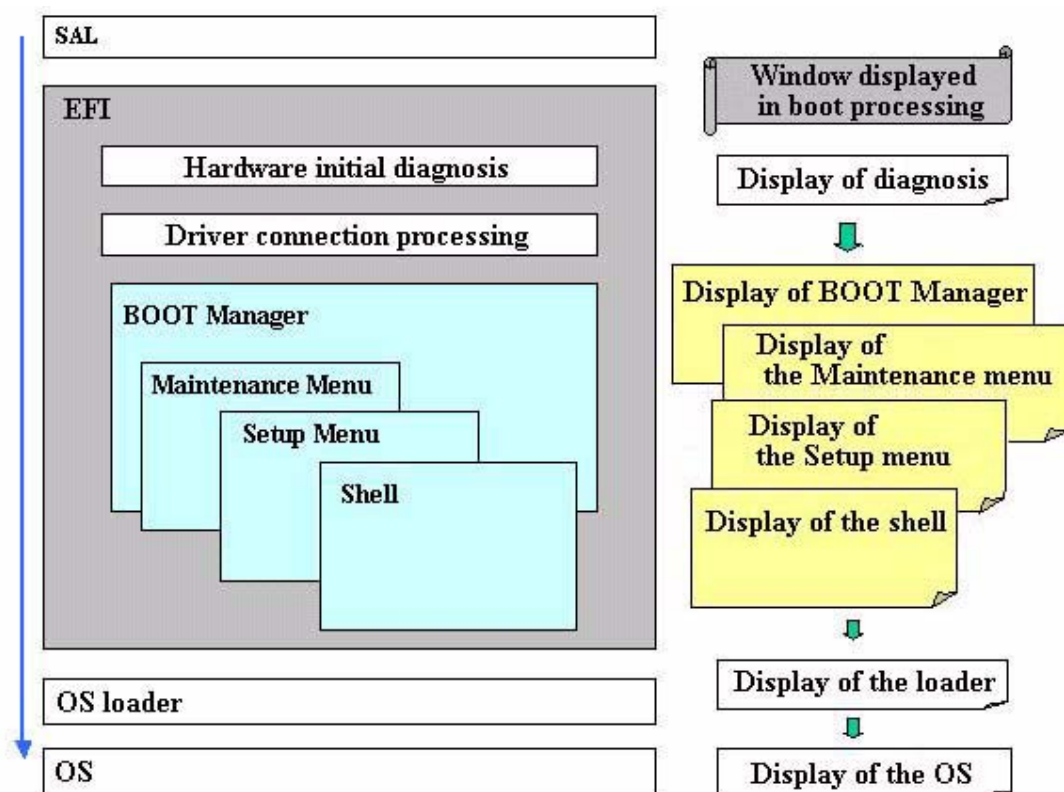


Figure 9.1 EFI outline

The main PRIMEQUEST EFI (hereafter called EFI) functions include the following:

- Supports boot processing of the OS loader
- Supports control of booted devices
- Supports console functions
- Supports EFI application execution prior to the OS boot

SAL expands EFI in memory for operation.

9.1 Boot Function

The EFI loads the different types of EFI drivers required for boot processing and, initialize those drivers.

EFI Boot Manager (hereafter called "Boot Manager") automatically executes boot processing according to preset boot information.

This boot information is set in advance by the installer and stored in the NVRAM variables of the EFI.

9.1.1 NVRAM variables for boot control

This section describes the NVRAM variables that control boot processing.

(1) Boot#### variable

Information about the OS loader booted by Boot Manager is stored in this variable.

The information is stored in the EFI_LOAD_OPTION format as shown below. The #### part of the variable represents a displayable string of hexadecimal numbers ranging from 0000 to FFFF.

EFI_LOAD_OPTION Descriptor

UINT32	Attributes ;
UINT16	FilePathListLength ;
CHAR16	Description[] ;
EFI_DEVICE_PATH	FilePathList[] ;
UINT8	OptionalData [] ;

(2) Driver#### variable

Information about the drivers loaded immediately before booting by Boot Manager is stored in this variable. The information is stored in the EFI_LOAD_OPTION format as shown above. The #### part of the variable represents a displayable string of hexadecimal numbers ranging from 0000 to FFFF.

(3) BootOrder variable

This variable specifies the actual boot sequence of the target programs specified by the Boot#### variable.

(4) DriverOrder variable

This variable specifies the actual loading sequence of the target drivers specified by the Driver#### variable.

(5) BootNext variable

This variable specifies the Boot#### variable used for booting by Boot Manager in the next boot processing. Boot Manager clears the BootNext variable before control is passed to the boot target specified by the variable. If Boot Manager fails to boot the specified target boot program, boot processing continues according to the BootOrder variable.

9.1.2 Boot processing order

If the BootNext variable is not found, Boot Manager selects Boot#### variables in the order specified by the BootOrder variable to execute boot processing.

If boot processing fails for any of the following reasons, Boot Manager continues processing with the next Boot#### variable specified in the BootOrder variable:

- 1 The device or file specified by the Boot#### variable does not exist.
- 2 A CD-ROM/DVD device is specified as the boot target, but it contains no media.
- 3 PXE boot is specified, but a cable is disconnected.
- 4 PXE boot is specified, but the PXE server is not configured.
- 5 A hard disk device is specified, but it contains no EFI partition.
- 6 A CD-ROM/DVD device is specified, but it contains no EFI partition.
- 7 A virtual floppy disk device is specified, but it contains no EFI partition.
- 8 The file specified as the boot target fails during read processing.
- 9 The file specified as the boot target is not in the EFI executable format.
- 10 The Linux kernel does not exist.
- 11 elilo is forcibly terminated during startup, such as because of [ESC] key input.

Remarks: If an error occurs after control is passed to the OS loader, the boot target is not switched and reset processing is executed using timer monitoring.

9.1.3 Controlling auto-boot processing

By default, Boot Manager executes OS boot processing immediately during power-on boot processing. If no OS is installed, the EFI shell is started.

However, you can interrupt the boot processing and display the Boot Manager menu as follows:

(1) **Displaying the Boot Manager menu by making a setting from the MMB Web-UI**

Auto-boot can be temporarily cancelled with an MMB Web-UI operation. For details, see [Section 10.1, "Starting Boot Manager."](#)

(2) **Displaying the Boot Manager menu by changing the Timeout value in an NVRAM variable.**

You can use the Timeout value in an NVRAM variable to specify the wait time for boot processing. Specify a period ranging from 1 and 65534 seconds for Timeout. Boot processing is suspended and the Boot Manager menu is displayed during the specified period. The default value is 0.

If a value other than 0 is specified for Timeout and a key is pressed for input during the wait time, auto-boot processing resumes.

For details, see [Section 10.3.5, "\[Set Auto Boot Timeout\] window."](#)

CHAPTER 10 Boot Manager

Boot Manager allows you to configure selected OS automatic booting, start the EFI shell, specify or modify the automatic boot sequence, and display or modify the SCSI driver configuration.

10.1 Starting Boot Manager

By default, the PRIMEQUEST machine immediately starts its OS without displaying the Boot Manager menu.

To display the Boot Manager menu for making various settings, follow the procedure below.

- 1 From the MMB Web-UI menu, click [Partition] → [Partition#x] → [Boot Control]. [Boot Control] window appears.
- 2 Select [Force boot into EFI Boot Manager] from [Boot Selector], and click the [Apply] button.
- 3 Turn on the power to the partition. Boot Manager starts after EFI starts. The Boot Manager menu window shown in [Figure 10.1](#) appears on the console.

10.2 Boot Manager Menu

The Boot Manager menu displays the boot options specified in `Boot####` variables in the order specified by the `BootOrder` variable. Auto-boot processing is executed in the order of priority specified with this variable.

Also, you can use key input with the Boot Manager menu to select and start any boot option regardless of the `BootOrder` values.

When installing an OS, the installer adds the OS boot options, which can also be selected from the Boot Manager menu.

```
EFI Boot Manager ver 1.10 [x.x]

Please select a boot option

EFI Shell [Built-in]
DVD/Acpi(PNP0A03,0)/Pci(1D|1)/Usb(0, 0)/Usb(1,0)
Network/Acpi(PNP0A03,0)/Pci(1E|0)/Pci(8|0)/Mac(000B56E004F)
Boot Option Maintenance Menu
Setup Menu

Use ↑ and ↓ to change option(s). Use Enter to select an option
```

Figure 10.1 Example of the displayed [Boot Manager Menu] window

The table below describes the items displayed in the window shown in [Figure 10.1](#).

Table 10.1 Display items in the [Boot Manager Menu] window

Item	Description
EFI Shell [Built-in]	Starts the EFI shell.
DVD/Acpi (PNP0A03,0)/	Performs booting from a DVD-ROM or CD-ROM.
Floppy/Acpi (PNP0A03,0)/	Performs booting from a floppy disk.

Item	Description
Network/Acpi (PNP0A03,0)/	Performs network booting.
Boot Option Maintenance Menu	Displays the [Boot Option Maintenance Menu], which can be used to add and delete Boot#### variables and change boot priorities with the BootOrder variable.
Setup Menu	Displays the [EFI Setup Menu], which can be used to display and change the SCSI driver configuration.

(1) Menu operation

[Partition] → [Partition#x] → [Boot Control] → [Force boot into EFI Boot Manager]

(2) Window operation

Boot Manager allows you to use the keys listed in the table below, for example, to select items.

Table 10.2 Keys used for Boot Manager operation

Key	Description
↑ ↓	Moves the cursor up or down. The [^] key can also be used as the up arrow key and the [v] or [V] key can also be used as the down arrow key.
← →	Moves the cursor to the left or right. The [←] key can also be used as the left arrow key and the [→] key can also be used as the right arrow key.
PageUp / PageDown	Displays the previous or next screen.
Home / End	Moves the cursor to the top or bottom item on the screen.
Enter	Makes the current item selection effective.

Remarks: Note that this table does not apply to the SCSI Configuration Utility, which is invoked from the [Setup] menu. For details, see the key operation descriptions displayed in the window or Help.

10.3 Boot Option Maintenance Menu

The Boot Option Maintenance menu allows you to directly perform a boot from a specified boot file, add or delete boot options (Boot#### variable of NVRAM variables), or change the boot sequence (BootOrder variable).

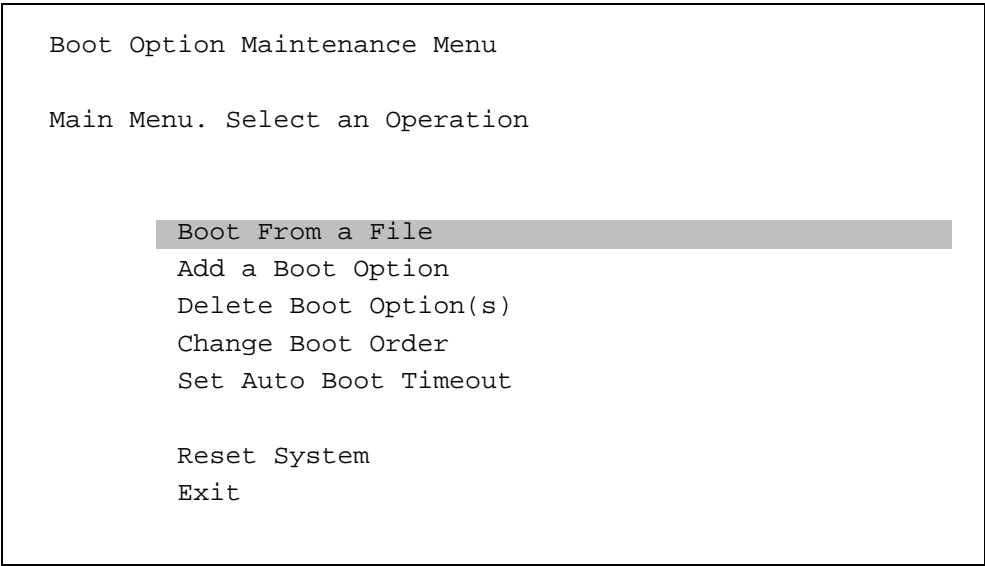


Figure 10.2 Example of the displayed [Boot Option Maintenance Menu (Main Menu)] window

Table 10.3 Outline of functions available in the [Boot Option Maintenance Menu (Main Menu)] window

Function	Description
Boot From a File	Performs a boot from a specified file.
Add a Boot Option	Adds a new boot option.
Delete Boot Option(s)	Deletes the specified boot option(s).
Change Boot Order	Changes boot priorities and reflect the changes to the BootOrder variable.
Set Auto Boot Timeout	Specifies the input wait time in seconds that may elapse after Boot Manager displays its menu during auto-boot processing.
Reset System	Resets the target partition.
Exit	Used to return to the [Boot Manager Menu] window.

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu].

(2) Window operation

- 1 Select the item to execute by moving the cursor up or down.
- 2 Press the [Enter] key.

10.3.1 [Boot From a File] window

This window allows you to perform a boot by directly specifying the boot file contained in a device.

```

Boot Option Maintenance Menu

Boot From a File.  Select a Volume

NO_VOLUME_LABEL [Acpi(PNP0A03,0)/Pci(1|1)/Pci(0|2)/Pci(1|0)/Scsi
Removable Media Boot [Acpi(PNP0A03,0)/Pci(1D|1)/Usb(0, 0)/Usb(1,
Load File [Acpi(PNP0A03,0)/Pci(1E|0)/Pci(8|0)/Mac(000B5D6E004F)]
Load File [EFI Shell [Built-in]]
Exit
  
```

Figure 10.3 Example of the displayed [Boot From a File] window

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Boot From a File].

(2) Window operation

- 1 Select a device from the displayed device list, and then select a boot file.
Selecting [Exit] closes the [Boot From a File] window.
- 2 Press the [Enter] key.

10.3.2 [Add a Boot Option] window

This window allows you to add new boot options. Boot options comprise information stored in `Boot####` variables, including the device path and OS loader information and the boot information to be passed to the OS loader.

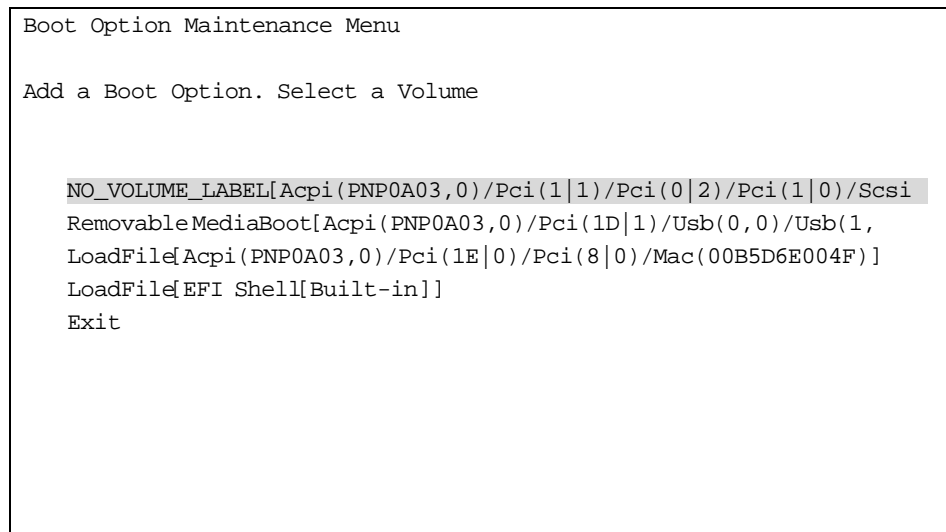


Figure 10.4 Example of the displayed [Add a Boot Option] window

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Add a Boot Option].

(2) Window operation

- 1 Select a device from the displayed device list, and then select a boot file.
- 2 Specify the following items:
 - [Enter New Description:]
Enter a boot option description that will be displayed in the Boot Manager menu.
 - [Enter BootOption Data Type:]
If an optional parameter needs to be passed to the OS loader, press the [a] (Ascii) or [u] (Unicode) key. If no optional parameter is required, press the [n] key.
- 3 If necessary, specify optional parameters after [Enter BootOption Data:].
- 4 For Save [Y-Yes N-No]:, press the [y] key.

(3) Example

An example is provided below.

Enter New Description: Linux Boot

Enter BootOption Data Type: Unicode

Enter BootOption Data: elilo mylinux 3

Save [Y-Yes N-No]: y

This example shows the booting of OS (Linux) in run level 3 with mylinux specified in the label in elilo.conf.

[Figure 10.5](#) shows a sample boot file and [Figure 10.6](#) shows a boot option setting example.

```
prompt
timeout=20
default=linux
relocatable

image=vmlinuz-2.6.9-1.648_EL
    label=linux
    initrd=initrd-2.6.9-1.648_EL.img
    read-only
    root=/dev/VolGroup00/LogVol100

image=vmlinuz-2.6.9-1.648_EL-test
    label=mylinux
    initrd=initrd-2.6.9-1.648_EL.img
    read-only
    root=/dev/VolGroup00/LogVol100
```

Figure 10.5 Sample boot file (elilo.conf)

```
Filename: \EFI\redhat\elilo.efi
DevicePath:[Acpi(PNP0A03,1)/Pci(1F|0)/Pci(2|0)/Scsi(Pun1,Lun0)/HD
(Part1,SigA478626A-9672-449A-A86B-2BC3F4CAD9E2)/\EFI\redhat\elilo.efi]
IA-64 EFI Application 06/16/04 12:05a 345,564 bytes

Enter New Description: Linux Boot
New BootOption Data. ASCII/Unicode strings only, with max of 240 characters

Enter BootOption Data Type [A-Ascii U-Unicode N-No BootOption] : Unicode

Enter BootOption Data [Data will be stored as Unicode string]:
elilo mylinux 3

Save [Y-Yes N-No]:
```

Figure 10.6 Boot option setting example

When, in this example, you select [Exit] from the [Boot Option Maintenance Menu] after setting boot options, an item named "Linux Boot" is added to the [Boot Manager Menu] window, as shown in [Figure 10.7](#).

If this [Linux Boot] is selected, Linux is started in run level 3.

```
EFI Boot Manager ver 1.10 [x.x]

Please select a boot option

EFI Shell [Built-in]
DVD/Acpi(PNP0A03,0)/Pci(1D|1)/Usb(0,0)/Usb(1,0)
Network/Acpi(PNP0A03,0)/Pci(1E|0)/Pci(8|0)/Mac(000B56E004F)
Linux Boot
Boot Option Maintenance Menu
Setup Menu

Use ↑ and ↓ to change option(s). Use Enter to select an option
```

Figure 10.7 Boot Manager menu as it is displayed after a boot option is added

10.3.3 [Delete Boot Option(s)] window

This window allows you to delete one or more specified boot options.

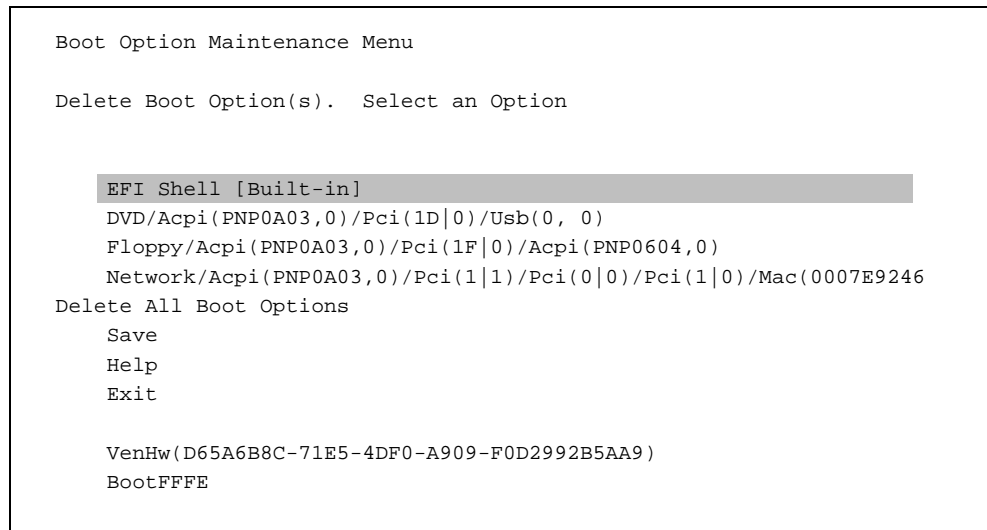


Figure 10.8 Example of the displayed [Delete Boot Option(s)] window

Table 10.4 Functions of submenus available in the Delete Boot Option(s) window

Submenu	Description
Delete All Boot Options	Displays the message shown below. Delete ALL of above Boot Options [Y-Yes N-No]: Pressing the [y] or [Y] key deletes all boot options. Pressing the [n] or [N] key cancels the deletion operation.
Save	Saves the configuration after the deletion.
Help	Displays help information on the [Delete Boot Option(s)] window.
Exit	Closes the [Delete Boot Option(s)] window. If you deleted one or more boot options, but did not execute [Save], the following confirmation message appears: Save? [Y to save, N to ignore] If you press the [y] or [Y] key, the settings are saved and then the window closes. If you press the [n] or [N] key, the new settings are discarded and the window closes.

Not only the basic keys listed in [Table 10.2, "Keys used for Boot Manager operation,"](#) but also the keys listed in [Table 10.5](#) below can be used in the [Change Boot Order] window.

Table 10.5 Keys used for operation on the [Delete Boot Option(s)] window

Key	Description
d	When the [d] or [D] key is pressed for input, the following message is displayed: Delete selected Boot Option [Y-Yes N-No]: Pressing the [y] or [Y] key deletes the selected boot options. Pressing the [n] or [N] key cancels deletion.
a	When the [a] or [A] key is pressed for input, the following message is displayed: Delete ALL of above Boot Options [Y-Yes N-No]: Pressing the [y] or [Y] key deletes all boot options. Pressing the [n] or [N] key cancels deletion.

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Delete Boot Option(s)].

(2) Window operation

- 1 Select the boot option(s) you want to delete.
The question "Delete selected Boot Option [Y-Yes N-No]:" appears.
- 2 When you press the [y] key, the selected boot option(s) are deleted.
- 3 Select [Save] and press the [Enter] key.
- 4 Select [Exit] and press the [Enter] key to close the [Delete Boot Option(s)] window.

Remarks: To delete all options at the same time, press the [a] key.
Press the [y] key as input for "Delete All of above Boot Options[Y-Yes N-No]." All the boot options are then deleted.

10.3.4 [Change Boot Order] window

The [Change Boot Order] window lists boot options, with the highest-priority options displayed first. The window is used to change the displayed order of the options.

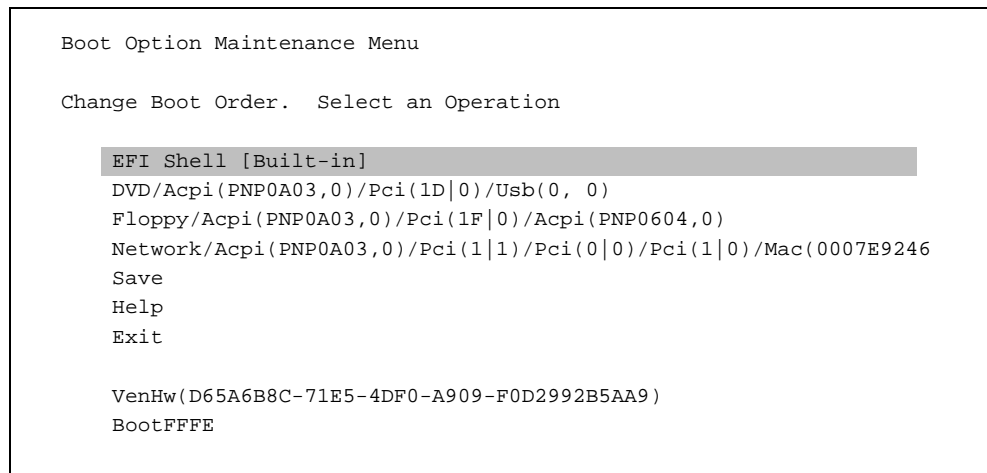


Figure 10.9 Example of the displayed [Change Boot Order] window

Table 10.6 Functions of submenus available in the [Change Boot Order] window

Submenu	Description
Save	Saves the settings.
Help	Displays help information on the [Change Boot Order] window.
Exit	Closes the [Change Boot Order] window. If you deleted one or more boot options, but did not execute [Save], the following confirmation message appears: Save? [Y to save, N to ignore] If you press the [y] or [Y] key, the settings are saved and then the window closes. If you press the [n] or [N] key, the new settings are discarded and the window closes.

Not only the basic keys listed in [Table 10.2, "Keys used for Boot Manager operation,"](#) but also the keys listed in [Table 10.7](#) below can be used in the [Change Boot Order] window.

Table 10.7 Keys used for operation on the [Change Boot Order] window

Key	Description
u	Raises the priority of the boot option one level.
d	Lowers the priority of the boot option one level.

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Change Boot Order].

A window like [Figure 10.9](#) appears. This window displays boot options based on the boot sequence.

(2) Window operation

- 1 Select one or more boot options whose priority in the boot sequence should be changed.
- 2 Press the [u] or [d] keys to change the boot sequence of the boot options.
- 3 Select [Save] and press the [Enter] key to save the settings.
- 4 Select [Exit] to close the [Change Boot Order] window.

10.3.5 [Set Auto Boot Timeout] window

If you want the system to display the Boot Manager menu and wait for input instead of immediately booting the OS, use this menu to specify the wait time.

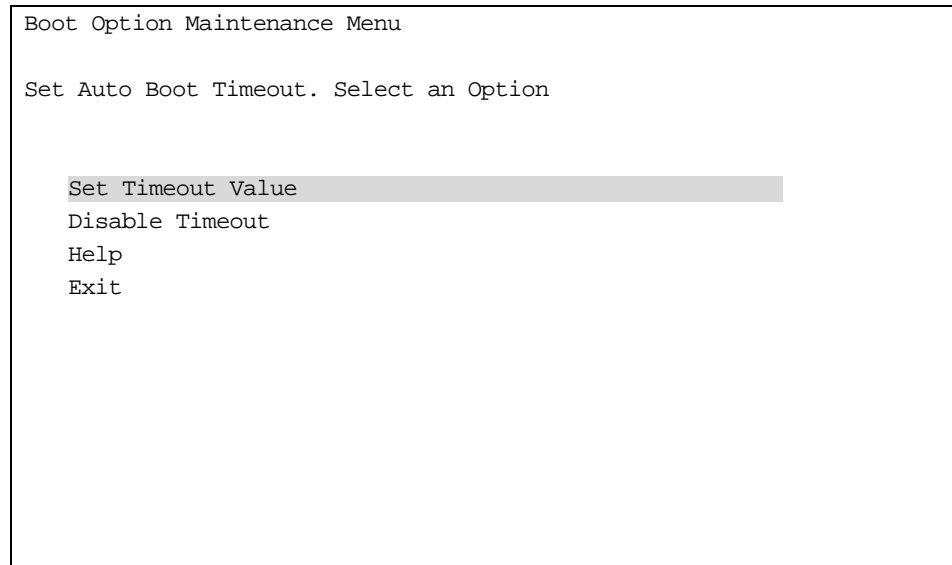


Figure 10.10 Example of the displayed [Set Auto Boot Timeout] window

Table 10.8 Functions of submenus available in the [Set Auto Boot Timeout] window

Submenu	Description
Set Timeout Value	Specifies the input wait time that may elapse after Boot Manager displays its menu.
Disable Timeout	Displays the [Boot Manager Menu] window instead of performing automatic boot processing.
Help	Displays help information on the [Set Auto Boot Timeout] window.
Exit	Closes the [Set Auto Boot Timeout] window.

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Set Auto Boot Timeout].

A window like [Figure 10.10](#) appears.

(2) Window operation

- 1 Use the following submenu to specify a timeout value.
Set Timeout Value: Specify a value of time in seconds that may elapse before booting starts ($0 \leq N \leq 65534$). The default is 0.
Disable Timeout: Select this item if you want the system to display the [Boot Manager] menu and wait for input instead of performing automatic boot processing.
- 2 Select [Exit] and press the [Enter] key to close the [Set Auto Boot Timeout] window.

10.3.6 Reset System

This window allows you to reset the partition.

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Reset System].

The [Boot Option Maintenance Menu] closes and the partition is reset.

10.3.7 Exit

This window allows you to return to the [Boot Manager] menu.

(1) Menu operation

Select [Boot Manager] → [Boot Option Maintenance Menu] → [Exit].

The [Boot Option Maintenance] menu closes and the [Boot Manager] menu returns.

10.4 EFI Setup Menu

The EFI Setup Menu allows you to start an EFI driver configuration tool and set up the USB keyboard.

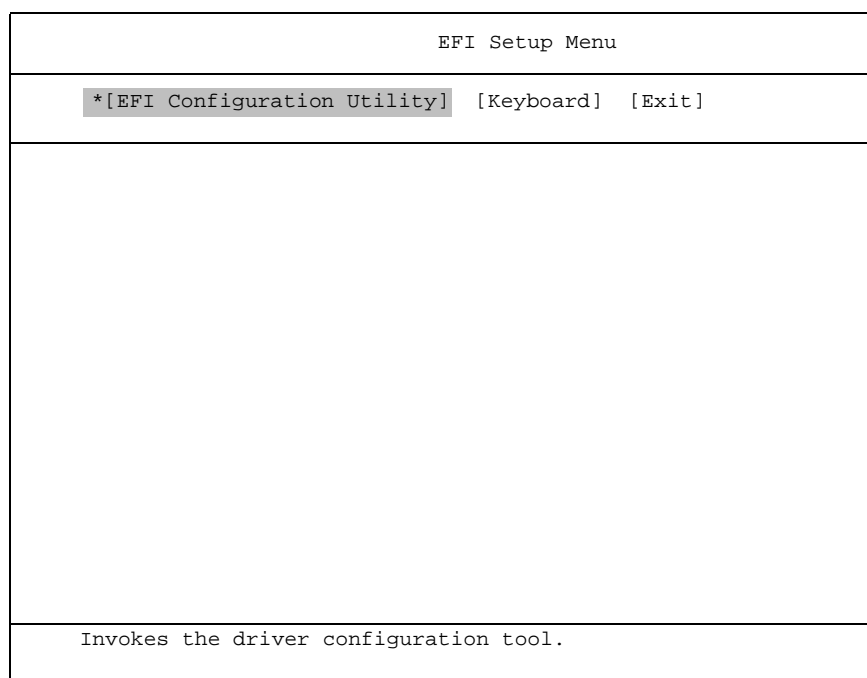


Figure 10.11 EFI Setup Menu as it is displayed immediately after startup

Table 10.9 Functions of the EFI Setup Menu

Item	Description
EFI Configuration Utility	Starts the EFI driver configuration tool. You can choose the SCSI configuration tool in on-board mode.
Keyboard	Specifies the USB keyboard to be used in the preboot environment.
Exit	Used to return to the Boot Manager menu window.

(1) Menu operation

Select [Boot Manager] → [Setup Menu].

A window like [Figure 10.11](#) appears.

(2) Window operation

- 1 Select the desired item by moving the cursor to the left or right.
- 2 Press the [Enter] key.

10.4.1 [EFI Configuration Utility] window

This window allows you to start the EFI driver configuration tool.

Remarks: The controllers listed in the [EFI Configuration Utility] window are limited to those whose configuration utilities are implemented by the corresponding EFI drivers. An EFI driver configuration utility can be invoked by selecting the corresponding controller in this window. Some EFI drivers do not have a configuration utility, and the operation of a configuration utility varies depending on the specifications of the EFI driver. For details, see the driver specifications. If a configuration utility is provided separately as an EFI application, use it to configure the controller.

EFI Setup Menu	
[EFI Configuration Utility] [Keyboard] [Exit]	
EFI Configuration Utility	
*[S#00:B#83: D#01:F#0]	Acpi(PNP0A03,0)/Pci(9 1)/Pci(0 0)/Pci(1 0)
[S#00:B#83: D#01:F#1]	Acpi(PNP0A03,0)/Pci(9 1)/Pci(0 0)/Pci(1 1)
[S#00:B#84:D#01:F#0]	LSI Logic Ultra320 SCSI Controller
[S#00:B#84:D#01:F#1]	LSI Logic Ultra320 SCSI Controller
[S#00:B#86:D#01:F#0]	Acpi(PNP0A03,0)/Pci(A 1)/Pci(0 0)/Pci(1 0)
[S#00:B#86:D#01:F#1]	Acpi(PNP0A03,0)/Pci(A 1)/Pci(0 0)/Pci(1 1)
[S#00:B#87:D#01:F#0]	LSI Logic Ultra320 SCSI Controller
[S#00:B#87:D#01:F#1]	LSI Logic Ultra320 SCSI Controller
Esc=Exit	
S=PCI Segment B=PCI Bus D=PCI Device F=PCI Function	

Figure 10.12 Example of the displayed [EFI Configuration Utility] window

Table 10.10 Symbols displayed for the [EFI Configuration Utility] window

Symbol	Description
S#n	PCI segment number.
B#n	PCI bus number
D#n	PCI device number
F#n	PCI function number

(1) Menu operation

[Boot Manager] → [Setup Menu] → [EFI Configuration Utility].

(2) Window operation

- 1 Select the item you want to reconfigure.
The configuration tool corresponding to the selected item starts.
- 2 Make the necessary configuration changes, and then press the [Esc] key to exit from the [EFI Configuration Utility] window.

10.4.2 [Keyboard] window

This window allows you to specify the USB keyboard type to be used in the preboot environment.

EFI Setup Menu											
[EFI Configuration Utility] [Keyboard] [Exit]											
<table border="1"> <tr> <td colspan="2">Keyboard</td> </tr> <tr> <td colspan="2"> <table> <tr> <td>* Auto setting</td> <td><*></td> </tr> <tr> <td>Specific setting JP</td> <td>< ></td> </tr> <tr> <td>US</td> <td>< ></td> </tr> </table> </td> </tr> </table>		Keyboard		<table> <tr> <td>* Auto setting</td> <td><*></td> </tr> <tr> <td>Specific setting JP</td> <td>< ></td> </tr> <tr> <td>US</td> <td>< ></td> </tr> </table>		* Auto setting	<*>	Specific setting JP	< >	US	< >
Keyboard											
<table> <tr> <td>* Auto setting</td> <td><*></td> </tr> <tr> <td>Specific setting JP</td> <td>< ></td> </tr> <tr> <td>US</td> <td>< ></td> </tr> </table>		* Auto setting	<*>	Specific setting JP	< >	US	< >				
* Auto setting	<*>										
Specific setting JP	< >										
US	< >										
S=Save Esc=Exit											

Figure 10.13 Example of the displayed [Keyboard] window

Table 10.11 Items displayed in the [Keyboard] window

Item	Description
Auto setting	Automatically determines the keyboard type by obtaining the country information for the connected keyboard. Use this item only when you are sure that the keyboard can transmit appropriate country information to the system.
Specific setting	Explicitly specifies a keyboard type. Use this item when the keyboard cannot transmit appropriate country information to the system.

(1) Menu operation

[Boot Manager] → [Setup Menu] → [Keyboard].

(2) Window operation

- 1 Select the item to change the keyboard configuration. For information on the meaning of each item, see [Table 10.11](#).
- 2 Press the [s] or [S] key to save the settings.
- 3 Press the [Esc] key to close the [Keyboard] window.

CHAPTER 11 EFI Shell and EFI Commands

The PRIMEQUEST EFI supports the EFI shell function, which enables commands to be executed from a console.

11.1 Auto-startup File

After being started, the EFI shell first checks for the startup.nsh file in the specified execution path.

If the file is found, the commands written in the file are executed before a wait for input from the console. The startup.nsh file is optional.

Remarks: The execution path is the directory path specified in the path variable of a shell environment variable.

The directory path can be displayed and changed by the set command.

11.2 EFI Shell Command Syntax

Shell environment variables can be specified and referenced with the set command.

As shown below, the environment variable name must be enclosed between the % characters for access when it is used as an argument to a shell command:

`%myvariable%`

The shell has a special variable called lasterror. This variable retains the return value of the shell command executed last.

The "*", "?", "[", and "]" characters are handled as wildcard characters in a file name used as an argument to a shell command.

Table 11.1 Wildcards

String	Explanation
"*"	Represents zero or more characters in a file name.
"?"	Represents exactly one character in a file name.
"[" string "]"	Represents any one character between [and]. Example: [a-zA-Z]

11.3 Output Redirection

Output of an EFI shell command can be redirected to a file. The syntax of the redirection is as follows:

```
Command > unicode_output_file_pathname
Command >a ascii_output_file_pathname
Command 1> unicode_output_file_pathname
Command 1>a ascii_output_file_pathname
Command 2> unicode_output_file_pathname
Command 2>a ascii_output_file_pathname
Command >> unicode_output_file_pathname
Command >>a ascii_output_file_pathname
Command 1>> unicode_output_file_pathname
Command 1>>a ascii_output_file_pathname
```

Table 11.2 lists the character strings used to indicate a redirect or append operation.

Table 11.2 Special strings

String	Explanation
">"	Redirects the standard output to a Unicode file.
">a"	Redirects the standard output to an ASCII file.
"1>"	Redirects the standard output to a Unicode file.
"1>a"	Redirects the standard output to an ASCII file.
"2>"	Redirects the standard error output to a Unicode file.
"2>a"	Redirects the standard error output to an ASCII file.
">>"	Appends the standard output to a Unicode file.
">>a"	Appends the standard output to an ASCII file.
"1>>"	Appends the standard output to a Unicode file.
"1>>a"	Appends the standard output to an ASCII file.

The shell can redirect the standard output or standard error output to a single file.

Remarks: The standard output and the standard error output cannot both be redirected to the same file. Redirection to multiple files at the same time is not possible.

11.4 Batch Script

The EFI shell can execute commands from batch script files as follows:

- The batch script files use the ".nsh" extension.
- The batch script files are created as Unicode files or ASCII files.
- The batch scripts support the positional argument, which can be used to reference each argument by a number, as in %n (n=0 to 9).
%0 indicates the script file currently being executed.
- The display during execution of a command from a batch script is echoed on the console.
- The echo –off command is used to disable display of a command read from a batch file.
- The shell does not save information on execution of a command from a batch script.
- The history save function used with cursor keys is not supported.
- If a command error occurs in a batch script, processing is continued by default.
- A batch script can test the results from the last command executed by using the if command with the lasterror shell variable specified.
- A line in a batch script can be commented out by inserting the "#" character.

Glossary

ACS (AC Section)

AC power input section

ASIC (Application Specific Integrated Circuit)

Integrated circuit (IC) designed and manufactured for specific applications

API (Application Program Interface)

A set of instructions and functions used for developing operating systems and middleware

BIOS (Basic Input Output System)

Part of the operating system (OS) function. The BIOS is the system that controls input/output to devices. For the PRIMEQUEST-series machine, BIOS is a general term for PAL, SAL, and EFI.

BMC (Baseboard Management Controller)

The BMC is a system management controller that continuously monitors the system for serious hardware errors and notifies the OS of such errors.

BMM (BMC Module)

Board on which legacy I/O ports such as BMC, VGA, USB, and COM ports are mounted

BP (Backplane)

The backplane is connected to SBs, IO Units, and other devices. Together with the XAI and XDI, it constitutes the memory and I/O interconnect (crossbar).

Business LAN

LAN used to configure a user business system

CLI (Command Line Interface)

This interface with UNIX or DOS allows the user to enter commands and optional arguments to communicate with the OS.

CoA

Abbreviation for Certificate of Authenticity. This is a visual identifier that helps identify genuine Microsoft software and components.

COM Port (Communication Port)

RS-232C serial port for PC/AT compatible machines. A COM port is also called an "RS-232C port." Most PC/AT compatible machines each have two COM ports, which are often used to connect a modem, terminal adapter, or scanner. Most of these ports use D-Sub 25-pin or D-Sub 9-pin connectors.

CPCB (Clock and PCI_Box Control Board)

Board equipped with a system clock oscillator and a PCI_Box control interface

Crossbar

This concept covers the address crossbar and data crossbar that transfer data and control the data transfer between SBs and IO Units. Memory and I/O interconnect has the same meaning as crossbar.

DDR2 (Double Data Rate 2)

Standards for the next generation of memory that operates at higher speeds and consumes less power than conventional DDR memory

DIMM (Dual Inline Memory Module)

This compact memory module has pins on both sides and is mainly used in notebook PCs.

DP

Abbreviation for Dynamic Partitioning. This is a function for dynamically adding, deleting, or replacing CPU or memory resources as well as PCI cards and onboard I/O units in a partition while the operating system is running in the partition.

DVD-ROM (Digital Versatile Disc-Read-Only Memory)

Digital format for high-volume storage of data on optical disks

ECC (Error Checking Correction)

Error correction code or a method of using the error correction code to check for and correct errors

EFI (Extensible Firmware Interface)

Specifications for an interface between an OS and firmware. Instead of the BIOS, EFI is used for hardware control.

FC (Fibre Channel)

One of the serial interface standards. The Fibre Channel standard uses fiber cables as the transmission medium.

Firmware

Built-in software for basic hardware control

FWH (Firmware Hub)

LSI device from Intel Corporation. FWH is flash memory that stores SAL (BIOS). The PRIMEQUEST-series machine uses two types of FWH: one type is mounted on an SB and the other is mounted in an IO Unit.

GAC (Global Address Controller)

One of the ASICs developed by Fujitsu for the PRIMEQUEST-series machine

GbE (Gigabit Ethernet)

Ethernet standards for high-speed communication of up to 1 Gbps

GDS

Abbreviation for PRIMECLUSTER GDS

GDX (Global Data Xbar)

One of the ASICs developed by Fujitsu for the PRIMEQUEST-series machine

GLS

Abbreviation for PRIMECLUSTER GLS

GSWB (Gigabit Switch Board)

Board with a switching hub function and a connector that receives Gigabit Ethernet interface output from an IO Unit via the BP and outputs it to a destination outside the cabinet

HBA

Abbreviation for a host bus adapter

HDD (Hard Disk Drive)

Device that reads a hard disk. HDD may also be an abbreviation for the hard disk itself.

Hot Plug

Method of replacing components while power is on

HTTP (Hypertext Transfer Protocol)

Protocol used by Web servers and clients for data transmission

I2C (Inter Integrated Circuit)

Protocol used for high-speed communication between integrated circuits (ICs)

IA (Intel Architecture)

Generic term for the basic design (architecture) of Intel's microprocessors

IFT (Instruction Fetch)

Mechanism for reading instructions stored in memory

IHV (Independent Hardware Vendor)

This hardware provider has no special relationship with a particular hardware or OS maker.

IO Unit

I/O control unit that contains PCI card slot, HDD, SCSI controller, GbE controller, and other I/O interfaces

IP (Internet Protocol Address)

Identification number assigned to each computer connected to an IP network, such as the Internet and intranets

IPMI (Intelligent Platform Management Interface)

Standardized interface specifications established so that SNMP and server management software can monitor server hardware independently of specific hardware systems and OSs

ISV (Independent Software Vendor)

This application software provider has no special relationship with a particular hardware or OS maker.

KVM (KVM interface unit)

Unit used to select the USB interface for keyboard and mouse, or the VGA interface, for external output from a partition

LAN (Local Area Network)

Using optical fiber, for example, this network allows data to be transferred among computers and printers connected in a facility.

LDAP (Lightweight Directory Access**Protocol)**

Protocol used to access directory databases in a TCP/IP network, such as the Internet and intranets

LDX (Local Data Xbar)

One of the ASICs developed by Fujitsu for the PRIMEQUEST-series machine

LED

Abbreviation for a light emitting diode

MAC address (Media Access Control Address)

Unique address assigned to each network interface device, switch, or router mounted on a network interface card (NIC) or motherboard

Management LAN

This LAN connects the MMB to partitions and to LANs outside the cabinet so that the PRIMEQUEST system can be managed.

MIB (Management Information Base)

Information released by a network device managed by SNMP in order to post the device status to an external destination

Middleware

Software that runs under an OS and provides application software with more advanced and detailed functions than the OS. It is positioned between the OS and application software in terms of its characteristics.

Mirror Mode

Mechanism for duplicating memory, system interconnects, and internal hardware components of chipsets so that operation can continue with another component in the event that one of duplicated components fails.

MMB (Management Board)

This server management board is a system control unit whose tasks include control and monitoring of cabinet hardware, partition management, and system initialization.

NIC (Network Interface Controller)

Hardware that supports network functions

NTP (Network Time Protocol)

Standard time information protocol used on the Internet. Highly precise time information with consideration of line speeds and load changes in paths can be obtained with this protocol.

PAL (Physical Abstract Layer)

Firmware that provides platform initialization and operating system boot functions

Partition

System equipped with the functions of a processing unit. Each partition contains software resources such as an OS and applications as well as hardware resources such as SBs and IO Units.

PCI_Box

Device used for PCI slot expansion

PCI Hot Plug

Technology that enables PCI cards to be mounted and removed while the system is operating

PCI (Peripheral Component Interconnect)

Bus architecture established by PCI SIG for connecting PC components

PCIU (PCI Unit)

PCI-X card slot expansion unit that is mounted in a PCI_Box

PEXU

PCI Express card slot expansion unit that is mounted in a PCI_Box

Platform

OS type or environment that is the basis for operation of application software

POST (Power-On Self Test)

Hardware test that is automatically run when the computer is powered on

Private LAN

LAN used for internal control, under which firmware programs installed on hardware components communicate with one another. MMB firmware, GSWB firmware, and BMC firmware installed on IO Units can use a private LAN for communication with one another. OSs and applications cannot use a private LAN.

PSA (PRIMEQUEST Server Agent)

Software that performs hardware error monitoring and configuration management over PRIMEQUEST partitions

PSU (Power Supply Unit)

Component that converts AC voltage to DC voltage as a DC power supply

PXE

PXE (Preboot eXecution Environment) Network boot standard based on BIOS technology that enables remote operation of management tasks such as system start and OS installation/update

RAID (Redundant Array of Independent Disks)

Technology that increases reliability and processing speeds by using multiple hard disks as a single disk

REMCS (Remote Customer Support System)

Fujitsu's remote customer support service

Reserved SB

Standby SB reserved for possible failures

RHEL (Red Hat Enterprise Linux)

Linux distribution released by Red Hat, Inc.

SAF-TE

Abbreviation for a SCSI accessed fault-tolerant enclosure

SAL (System Abstraction Layer)

Firmware that supports processor initialization and error recovery functions

SAN (Storage Area Network)

Dedicated network for connections between a server and storage devices

SB (System Board)

Board on which a CPU and memory are mounted

SCSI (Small Computer System Interface)

Standards for connections between PCs and peripherals. SCSI was established by the American Standards Association.

SDRAM (Synchronous DRAM)

Memory standard for access speeds that are higher than those of DRAM

SEL (System Event Log)

Information on the processing parameters, processing, and processing results logged during hardware and software operations

SERDES (Serializer Deserializer)

Parallel-to-serial converter (from low speeds to high speeds)

SIRMS (Software Product Information Collection for Remote Maintenance Support)

Software that collects configuration information on software installed in PRIMEQUEST partitions

S.M.A.R.T. (Self-Monitoring Analysis Reporting Technology)

Function that enables a hard disk to monitor its own conditions and notify the BIOS of any error detected

SMP (Symmetric Multiple Processor)

Parallel processing system in which all processors work together through common memory resources

SNMP (Simple Network Management Protocol)

TCP/IP-compliant protocol for managing devices in a network

SSL (Secure Sockets Layer)

Protocol under which information is encrypted for transmission. SSL was developed by Netscape Communications Corp.

Systemwalker

One of Fujitsu's middleware products. Systemwalker is integrated operation management software.

Telnet

Protocol or standard method for remote control of computers connected to a TCP/IP network, such as the Internet and intranets

UPS (Uninterruptible Power Supply)

Power supply unit that stores power and protects against possible damage and loss of computer data from a momentary voltage drop or unexpected power failure

USB (Universal Serial Bus)

One of the standards on connecting peripheral devices such as keyboards and mice

VLAN (Virtual LAN)

Function that logically groups the ports of one switching hub so each group works as an independent LAN

Web UI (Web User Interface)

Interface that uses a Web browser for displaying information to users and for user operations

XAI (Xbar Address Interconnect Board)

Board that transfers address information and controls the information transfer between SBs and IO Unit boards

XDI (Xbar Data Interconnect Board)

Board that transfers data and controls the data transfer between SBs and IO Unit boards

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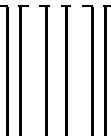
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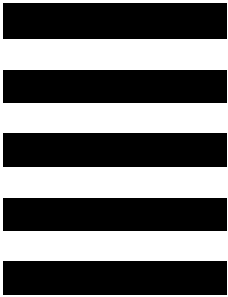


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