Areas Covered

Before Reading This Manual

Remarks

■ Symbols

Symbols used in this manual have the following meanings:

IMPORTANT	These sections explain prohibited actions and points to note when using this software. Make sure to read these sections.
POINT	These sections explain information needed to operate the hardware and software properly. Make sure to read these sections.
→	This mark indicates reference pages or manuals.

■ Key Descriptions / Operations

Keys are represented throughout this manual in the following manner:

E.g.: [Ctrl] key, [Enter] key, [→] key, etc.

The following indicate the pressing of several keys at once:

E.g.: [Ctrl] + [F3] key, [Shift] + [↑] key, etc.

■ Entering Commands (Keys)

Command entries are displayed in the following way:

```
diskcopy a: a:
        ↑  ↑
```

- In the areas of the "↑" mark, press the [Space] key once.
- The above example of command entry is indicated in the lowercase, while the uppercase is also allowed.
- CD-ROM drive names are shown as [CD-ROM drive]. Enter your drive name according to your environment.
  [CD-ROM drive]:\setup.exe

■ Screen Shots and Figures

Screen shots and figures are used as visual aids throughout this manual. Windows, screens, and file names may vary depending on the OS, software, or configuration of the server used. Figures in this manual may not show cables that are actually connected for convenience of explanation.

■ Consecutive Operations

Consecutive operations are described by connecting them with arrows (→).

Example: For the operation to click the [Start] button, point to [Programs], and click [Accessories]

↓

Click the [Start] button → [Programs] → [Accessories].

■ Product Names

The following expressions and abbreviations are used throughout this manual.

table: Abbreviations of Product Names

Product name	Expressions and abbreviations
Microsoft® Windows Server™ 2003, Standard Edition Microsoft® Windows Server™ 2003, Enterprise Edition	Windows 2003
Microsoft® Windows® 2000 Server Microsoft® Windows® 2000 Advanced Server	Windows 2000
Microsoft® Windows® Server Network Operating System Version 4.0 Microsoft® Windows NT® Server, Enterprise Edition 4.0	Windows NT
Microsoft® Windows® XP Professional	Windows XP Professional
Windows 2003, Windows 2000, Windows NT	Windows
Microsoft® Windows® 2000 Professional	Windows 2000 Professional
Microsoft® Windows NT® Workstation Operating System 4.0	Windows NT Workstation 4.0
Red Hat® Linux®	Linux
Red Hat Enterprise Linux AS (v.3 for x86)	RHEL-AS3 (x86)
Red Hat Enterprise Linux AS (v.3 for Itanium)	RHEL-AS3 (IPF)
Red Hat Enterprise Linux ES (v.3 for x86)	RHEL-ES3 (x86)
Red Hat Enterprise Linux AS (v.2.1 for x86)	RHEL-AS32.1 (x86)
Red Hat Enterprise Linux ES (v.2.1 for x86)	RHEL-ES2.1 (x86)

Reference Information

■ Hints.txt

In addition to the descriptions in this manual, ServerView provides the other information and notes to guide you in "Hints.txt". Please read it before using ServerView.
"Hints.txt" is stored in the PRIMERGY Document & Tool CD. Use a text editor to read it.

■ Limitations and Supported OS Associated with Machine Types

Some functions may be restricted depending on your machine type. Limitations for each machine type are described in "Hints.txt". Please make sure to read it before using ServerView.
Some OS described in this manual may not be supported depending on machine types. Please confirm the supported OS for your server in the manuals supplied with each server.

■ Latest Information about ServerView

For the latest information regarding ServerView, refer to the Fujitsu PRIMERGY website (http://primergy.fujitsu.com).

Trademarks

Contents

Chapter 1 Overview of ServerView

Chapter 2 Installing

Chapter 3 How to Use ServerView

Chapter 4 Using RemoteControlService

Chapter 1

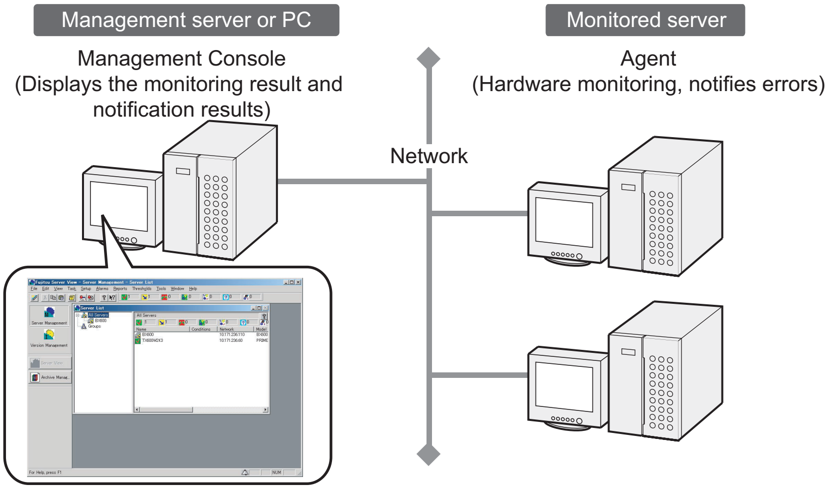
Overview of ServerView

This chapter explains ServerView's functions, management modes, and system requirements.

1.1 Understanding ServerView

ServerView is a software to monitor whether the server hardware is in the proper state via the network. ServerView allows the server to be monitored all the time. If ServerView detects an abnormality, it notifies the server administrator in real-time. This section introduces the functions of ServerView.

To use the ServerView, install it on a management server or PC and a monitored server.
The software on the monitored server to actually monitor and notify an abnormality is referred to as "Agent". The software on the management server or PC to browse the monitoring result or control the monitored server is referred to as "Management Console".


Management server or PC
Management Console
(Displays the monitoring result and notification results)
Network
Monitored server
Agent
(Hardware monitoring, notifies errors)

The ServerView has several components. The user can select whether to install both Management Consol and Agent or to install them separately depending on the network configuration or the server OS. Installing ServerView allows user to utilize the following functions that support reliable network operation.

- Hardware Monitoring (→pg.11)
- Abnormality Occurrence Notification/Server Status Check (→pg.12)
- Automatic Reconfiguration & Restart (→pg.14)
- Monitoring Server with Web browser (→pg.14)
- Remote Management (→pg.14)
- Advanced Server Management with Remote Service Board (→pg.14)

1.1.1 Monitoring hardware

ServerView monitors the hardware components on the server unit and the option devices equipped.

■ Monitorable hardware

The hardware components on the server unit and option devices the ServerView can monitor are listed below.
By installing ServerView agent, monitoring these components and devices starts automatically. The monitored items require no specific setting.

● Hardware components on the server unit

The monitorable hardware components vary depending on the server type. For more details, refer to "Hints.txt" in the PRIMERGY Document & Tool CD.

table: Hardware components

Monitorable components	Monitoring contents
Voltage sensor	Server voltage
Temperature sensor	CPU/chassis temperature
CPU	Display the mounted CPU information, error
Fan	Fans for CPU/chassis interior/power supply
Chassis	Chassis opening/shutting
Memory	Display mounted device information
Power Supply	Failure

● Optional devices

If a MIB file is provided optionally, refer to "2.4.4 Registering the Interrupt Information of the Optional Devices" (→pg.54) and register the interrupt information.

table: Optional devices

Monitorable optional devices	Overview of monitoring
Internal hard disk unit mounted on onboard SCSI	Display the device information
SCSI Ctrl U160 (PG-128) SCSI Ctrl U168 w/ SCSI cable (PG-129)	Display the card information
Eth. Ctrl 1000-BASE-T Cu (PG-185)	Display the Internet information Display the Ethernet MAC statistics
SCSI RAID card	Display the drive list Display the card information Display the device information
IDE-RAID card	Display the drive list Display the card information Display the device information

POINT

When SCSI RAID card is monitored:

- You need to install SCSI-RAIDmanager attached to the SCSI RAID card. Also, the array controller agent meeting each SCSI RAID card must be installed. The table below shows the typical IDE-RAID controller cards and corresponding array controller agents.

table: SCSI RAID cards and corresponding array controller agents

Cards used	SCSI-RAID manager	Array controller agent
PG-140, PG-141, and PG-142	StorageManager	DPT Disk Array Agent
PG-143, PG-144, FC103, and FC105	GAM (Global Array Manager)	Install Mylex dac960 Disk Array Agent

When IDE-RAID card is monitored:

- You need to install IDE-RAIDmanager attached to the IDE-RAID card. Also, the array controller agent meeting each IDE-RAID card must be installed. Typical IDE-RAID cards and corresponding array controller agents are shown on the table below.

table: IDE-RAID controller cards and corresponding array controller agents

Cards used	IDE-RAIDmanager	Array controller agent
IDE-RAID system	PROMISE Fasttrak	Install PROMISE Fasttrak IDE Disk Array
PG-1E4B	PAM (PROMISE ARRAY MANAGEMENT) Console	PAM (PROMISE ARRAY MANAGEMENT) Message Server/Message Agent

1.1.2 Abnormality Occurrence Notification/Server Status Check

ServerView provides the means to notify occurrence of the abnormality to Management Console and verify the server status.
The administrator can find out the current server status and the reason for troubles and respond to the trouble promptly.
The contents of the alarm to notify can be set flexibly and in detail to the operation state of the system.

■ Abnormality occurrence notification

When ServerView finds the abnormality in the server hardware, the monitoring program (agent) saves the event to the event log and notifies SNMP trap.
The administrator uses the AlarmService of ServerView to reference, edit, and set the alarm and notification method.
For details about setting AlarmService, refer to "3.2.1 Alarm Settings" (→pg.81) and for details about reviewing and editing alarm, refer to "3.3.2 Accepting/Reviewing/Editing Alarms" (→pg.104).
The administrator can customize the monitoring criteria called "threshold" and set ServerView to notify when the threshold is exceeded (regardless of the threshold having been set, monitoring with initial value set for each server type is always performed).
For details about threshold settings, refer to "3.2.2 Threshold Settings" (→pg.86).

POINT

- The event log stored to ServerView Agent is the following:
  Log type: application
  Source name: ServerView Agents

■ Verifying server status

ServerView has the following functions to find the server status reliably.

- "Version management function" for managing the versions of server hardware and software
- "Archive function" for recording server status
- "Reporting function" for outputting server status

● Version management function

The list of the server hardware components and software can be checked on the Management Console window. By checking their versions, the status of each sever component can be found.
For details about version management function, refer to "3.5 Version Management" (→pg.135).

● Archive function

By using ServerView ArchiveService, the server status can be recorded regularly as an "archive data". By comparing the recorded archived data with the archived data after a trouble, the cause of the trouble can be checked out.
Creating or comparing operation of the archived data is done using "Archive Manager". For more details, refer to "3.4 Archive Manager" (→pg.130).

● Reporting function

For report creation, the values measured regularly for a given period is recorded and displayed in the form of table or graph. This function enables monitoring of server on a long-term basis.
For details about creating report and how to output report, refer to "3.2.3 Report Settings" (→pg.89) and "3.3.5 Reviewing Reports" (→pg.129) respectively.

■ Copying settings to other server

The values of each setting item for alarm, threshold, and report output above can be copied to other server. Therefore, working hours for setting can be reduced when many servers must be set to the same setting.
For details on how to copy the settings to other servers, refer to "3.2.5 Copying Settings to the Other Servers" (→pg.96).

IMPORTANT

- When the OS is Linux, reporting function and function for copying settings to other server are not supported.
  However, the archive can be obtained from WebExtention on Linux.
- To utilize reporting function and copying setting function, monitoring must be performed from Windows Management Console.

1.1.3 Automatic Reconfiguration & Restart

ServerView provides a function called "ASR (Automatic Server Reconfiguration & Restart" to automatically restart or shut down the server when an abnormality occurs. Using this function allows you to safely shut down the server in which the abnormality has occurred or continue to operate server by disabling only the abnormal location after restarting.
For details about ASR settings, refer to "3.2.4 Serious Error Handling (ASR)" (→pg.92).

1.1.4 Server Monitoring with Web browser

ServerView's function "ServerView WebExtension" allows user to collect monitoring information and receive the information via HTTP.
The administrator can monitor server with Web browser even if Management Console is not installed on the PC outside the office.
ServerView WebExtension mainly displays the status of the monitored server and its configurable function for server is only ASR (Automatic Server Reconfiguration & Restart).
For details about how to operate ServerView WebExtension from Web browser, refer to "3.6 How to Use ServerView WebExtension" (→pg.141).

1.1.5 Remote Management

After installing "RemoteControlService" attached to ServerView and setting server's BIOS extension function "RomPilot/RCM", the server administrator can restart, shut down the server, or set up the BIOS from his/her PC. The administrator can manage the server without moving to the server location.
For details about installing RemoteControlService and how to set RomPilot/RCM, refer to "Chapter 4 Using RemoteControlService" (→pg.151).

IMPORTANT

- RemoteControlService allows user to perform important setting related to server operations, such as BIOS set up. The person who has sufficient knowledge, such as a server administrator, should perform this operation.
- RemoteControlService is only supported in Windows Management Console.

1.1.6 Advanced Server Management with Remote Service Board

RSB (Remote Service Board) is an optional extension card equipped with dedicated CPU, OS, communication interface and power. This board operates regardless of server status. It monitors or notifies information even when the server shuts downs and cannot notify an abnormal condition by itself. The server administrator can grasp the server status through RSB from Management Console on PC or Web browser and perform recovery work such as forced power on or reset.
To use RSB, preparation work such as installing driver has to be done in advance. For more details, refer to "Chapter 5 Using the Remote Service Board (PG-RSB102/PG-RSB103)" (→pg.197).

1.2 Hardware Management Mode

The server administrator can check the status of the server hardware with Management Console.
The hardware management mode varies depending on the component used.

■ Components of management console and agent

ServerView has the following components:

table: Components of management console and agent

Component name	Supported OS	Description
ServerView Console	• Windows 2003 • Windows 2000 • Windows XP Professional (Management Console only)	The Management Console that is installed on PC. The status of all monitored servers can be collectively displayed and multiple servers can be centrally managed. This includes Management Console and WebExtension.
ServerView Agents		The Agent that is installed on the monitored server.
ServerView Linux Agent	Linux	The Agent that is installed on the monitored server. To monitor Linux server, PC on which ServerView Console is installed is required.
AlarmService, WebExtension		Software that is installed on the monitored server and performs the process set in advance when an abnormality is found.

POINT

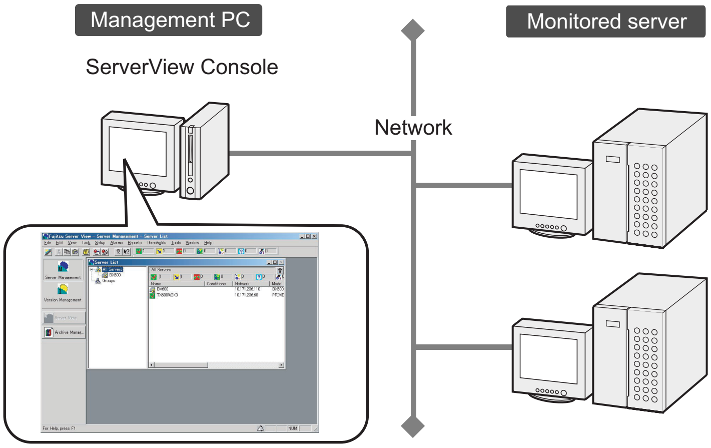
- Management Console can be installed only when the OS is Windows. When the OS is Linux, Management Console is not supported.
- For details about supported OS, refer to "System Requirements".

■ Management Console Features

Select and install the most suited component from the list above according to your network configuration and server OS.
Management Console contains AlarmService and ArchiveService.

● ServerView Console

This Management Console allows user to collectively display the status of all monitored servers from PC.
ServerView Console is most suited to the case where the monitored server is not placed close to the administrator or a large network is managed. The PC on which ServerView Console is installed is referred to as an "administration terminal".



1.3 System requirements

The system requirements for server and PC to use ServerView are as follows:

■ ServerView Agent (Installation to Server)

The system requirements when installing ServerView on the server are as follows:

table: System requirements when installing ServerView Agent

Server system		Operational conditions
Hardware	Memory used	256MB or more
	Hard disk	100MB or more of free space
	Monitor	SVGA (800×600) or more of resolution (recommended: 1024×768)
	LAN Card	Required (On Board LAN is also possible)
	Mouse	Required
Software	OS	• Windows 2003 • Windows 2000 Service Pack 4 or later
	Protocol	TCP/IP is required to run
	Service	SNMP (service and trap) must be operated.
	Account	Privileges equal to administrator must be assigned

IMPORTANT

- ServerView Agent is dedicated to PRIMERGY. Do not install it on the servers other than PRIMERGY.

■ ServerView Console (installation to server or PC)

The system requirements when installing ServerView Console on server or PC are as follows:

table: System requirements when installing ServerView Console

PC system		Operational conditions
Hardware	PC	IBM PC compatible
	Processor	Pentium® or higher
	Memory used	256MB or more
	Hard disk	400MB or more of free space
	Monitor	SVGA (800×600) or more of resolution (recommended: 1024×768)
	LAN Card	Required (On Board LAN is also possible)
	Mouse	Required

table: System requirements when installing ServerView Console

PC system		Operational conditions
Software	OS	• Windows 2003 • Microsoft Windows 2000 Professional Operating System Service Pack 4 or later • Microsoft Windows XP Professional Operating System
	Web server	• Microsoft Internet Information Server V6.0 (Windows 2003) • Microsoft Internet Information Server V5.0 (Windows 2000) • Microsoft Internet Information Server V5.1 (Windows XP Professional) or • ServerView Web-Server (Apache for Win32 based) (Installed automatically when it is selected during the ServerView installation) or • Apache2
	Protocol	TCP/IP is required to run
	Service	SNMP (service and trap) must be operated.
	Web browser	Microsoft Internet Explorer 5.5 or later (recommended: 6.0 or later) must be installed. In addition, Java™ 2 Runtime Environment Standard EditionV1.4.2_06 or later must be installed. (It can be installed from PRIMERGY Document & Tool CD.)
	Account	Privileges equal to administrator must be assigned

IMPORTANT

- Microsoft Virtual Machine is not supported in ServerView V3.40 or later.

■ ServerView Linux Agent (installation to server)

The system requirements when installing ServerView Linux Agent on the server are as follows:

table: System requirements when installing ServerView Linux Agent

PC system		Operational conditions
Hardware	Memory used	32MB or more
	Hard disk	30MB or more of free space (/lib 3MB/var 3MB/etc 3MB/sbin 1MB/usr 20MB)
	Monitor	SVGA (800×600) or more of resolution (recommended: 1024×768)
	LAN Card	Required (On Board LAN is also possible)
	Mouse	Required

table: System requirements when installing ServerView Linux Agent

PC system		Operational conditions
Software	OS	• Red Hat Enterprise Linux AS (v.3 for x86) (Abbreviation: RHEL-AS3 (x86)) • Red Hat Enterprise Linux AS (v.3 for Itanium) (Abbreviation: RHEL-AS3 (IPF)) • Red Hat Enterprise Linux ES (v.3 for x86) (Abbreviation: RHEL-ES3 (x86)) • Red Hat Enterprise Linux AS (v.2.1 for x86) (Abbreviation: RHEL-AS2.1 (x86)) • Red Hat Enterprise Linux ES (v.2.1 for x86) (Abbreviation: RHEL-ES2.1 (x86))
	Protocol	TCP/IP is required to run
	Service	SNMP (service and trap) must be operated.
	Package (RPM)	• net-snmp (or ucd-snmp for RHEL-AS2.1 (x86) / ES2.1 (x86)) • compat-libstdc++-7.3 (not required for RHEL-AS2.1 (x86) / ES2.1 (x86)) • gcc • glibc • glibc-devel • binutils • libstdc++ • make • gawk • rpm • kernel-source
	Account	Superuser

IMPORTANT

- ServerView Linux agent is dedicated for PRIMERGY. Do not install it on the servers other than PRIMERGY.

■ ServerView WebExtension/AlarmService (when OS is Linux)

When installing ServerView WebExtension/AlarmService on the server running Linux OS, the system requirements are the following:

table: System requirements when installing ServerView WebExtension/AlarmService

Server system		Operational conditions
Hardware	Memory used	128MB or more
	Hard disk	70MB or more of free space (/var 60MB/etc 3MB/usr 7MB)
	Monitor	Resolution of SVGA (800×600) or more (recommended: 1024×768)
	LAN Card	Required (On Board LAN is also possible)
	Mouse	Required

table: System requirements when installing ServerView WebExtension/AlarmService

Server system		Operational conditions
Software	OS	• Red Hat Enterprise Linux AS (v.3 for x86) (Abbreviation: RHEL-AS3 (x86)) • Red Hat Enterprise Linux AS (v.3 for Itanium) (Abbreviation: RHEL-AS3 (IPF)) • Red Hat Enterprise Linux ES (v.3 for x86) (Abbreviation: RHEL-ES3 (x86)) • Red Hat Enterprise Linux AS (v.2.1 for x86) (Abbreviation: RHEL-AS2.1 (x86)) • Red Hat Enterprise Linux ES (v.2.1 for x86) (Abbreviation: RHEL-ES2.1 (x86))
	Web server	Apache (use RPM to install)
	Protocol	TCP/IP is required to run
	Web browser	• Netscape Navigator/Communicator V6.2 or later • Mozilla V1.3 or later • Java™ 2 Runtime Environment Standard Edition V1.4.2_06 or later (It can be installed from PRIMERGY Document & Tool CD.)
	Package (RPM)	• net-snmp (or ucd-snmp for RHEL-AS2.1 (x86) / ES2.1 (x86)) • compat-libstdc++-7.3 (not required for RHEL-AS2.1 (x86) / ES2.1 (x86)) • httpd (or apache for RHEL-AS2.1 (x86) / ES2.1 (x86)) • gnome-libs (for RHEL-AS3 (x86) / AS3(IPF) / ES3 (x86)) • rpm • gawk • openssl • mod_ssl
	Account	Superuser

IMPORTANT

- ServerView WebExtension and AlarmService cannot be used separately. Both must be installed.

Chapter 2

Installing

This chapter explains how to install ServerView.

2.1 Installation Flow

The installation flow of ServerView is the following:

Checking before installation

Before installing ServerView, check the following:

For Windows

- Install TCP/IP and SNMP services.
- Apply Service Pack
- Change the bind order
- Install the Web server

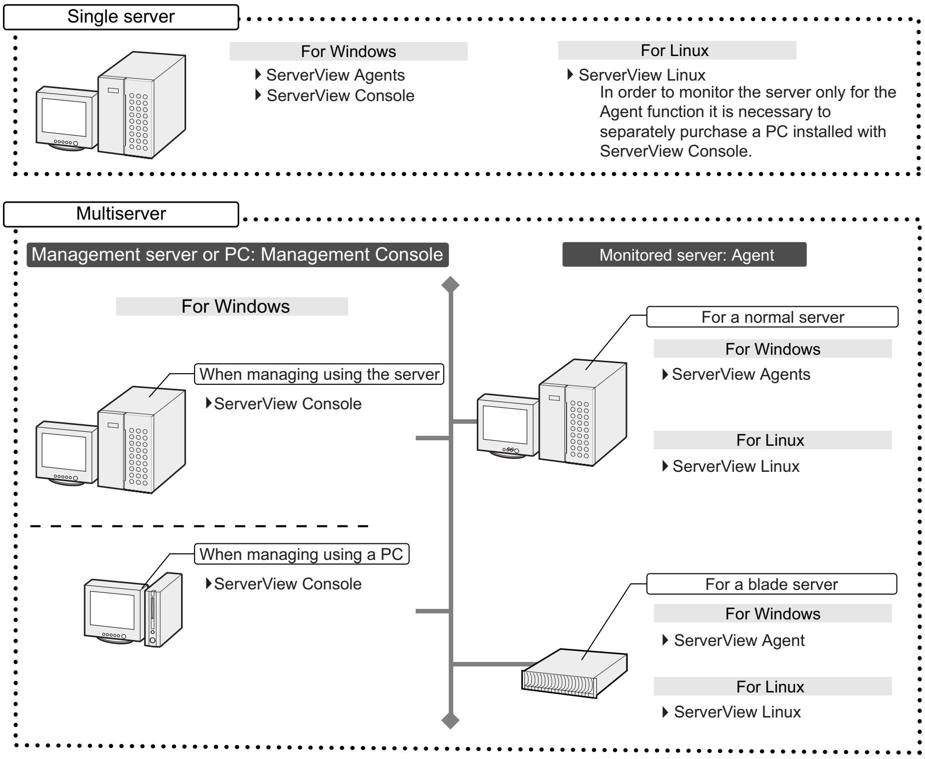
For Linux

- Install the Web server
- Check the kernel and RPM

Installing

Install the components necessary depending on the network configuration.

- For a single server,the required components for installation vary depending on the type of OS.
- For a multiserver environment, the required components for installation vary depending on the type of OS, normal server/blade server and method of monitoring.



Single server

For Windows

- ServerView Agents
- ServerView Console

For Linux

- ServerView Linux

In order to monitor the server only for the Agent function it is necessary to separately purchase a PC installed with ServerView Console.

Multiserver

Management server or PC: Management Console

For Windows

When managing using the server

- ServerView Console

When managing using a PC

- ServerView Console

Monitored server: Agent

For a normal server

For Windows

- ServerView Agents

For Linux

- ServerView Linux

For a blade server

For Windows

- ServerView Agent

For Linux

- ServerView Linux

Settings after installation

After the installation of ServerView, perform the various settings and install OS components.

For Windows

- Install Microsoft InternetExplorer
- Install Java 2 Runtime Environment Standard Edition
- Set an administrative user
- Register interrupt information of optional devices

For Linux

- Set various services (for a normal service)
- Set various services (for a blade server)

2.2 Checking before Installation

Before installing ServerView, check the following:

2.2.1 Installation of TCP/IP Protocol and SNMP Service

To make sure that ServerView functions correctly, the TCP/IP protocol and the SNMP service must be installed on the monitored server.
In the description below, the example of the SNMP service community name is written as "public". The community name can be changed when necessary. For details about changing community name, refer to the technical information. "Appendix F Technical Information" (→pg.288)

■ For Windows 2003:

1 Click [Start] → [Control Panel].

2 Double-click [Network Connections].

3 Click the [Advanced] menu → [Optional Networking Components].

4 Perform one of the following:

When the [Management and Monitoring Tools] in [Optional Networking Components Wizard] is already checked:

1. Click the [Management and Monitoring Tools] and click [Details], then make sure that the [Simple Network Management Protocol (SNMP)] is checked.
   If this check box is already checked, the SNMP service has been already installed. In this case, go to Step 5.

When the [Management and Monitoring Tools] in [Optional Networking Components Wizard] is not checked:

Follow the steps below to install the SNMP service.

1. Check the [Management and Monitoring Tools] in [Optional Networking Components Wizard].
2. Click [Details] and make sure that the [Simple Network Management Protocol (SNMP)] is checked, and then click [OK].
3. In the [Optional Networking Components Wizard], click [Next].
   Follow the messages on the window.

5 Click [Start] → [Control Panel] → [Administrative Tools].

6 Click [Manage Computers].

7 On the left tree, click [Services and Applications] → [Services].

8 Click [SNMP Service] on the right hand side of the window.

9 Click the [Action] menu → [Properties].

10 Click the [Traps] tab.

11 If the "public" is already in the [Community name] field, select "public". If not, enter "public" in the [Community name] field and click [Add to list].

12 Click [Add] in the [Trap destinations] section.

13 Enter the host name, IP or IPX address of the server on which ServerView Console is installed and click [Add].

When installing ServerView Console on single server environment, enter its own host name, IP or IPX address. When operating multiple ServerView Consoles, enter each host name, IP or IPX address.

14 Click the [Security] tab.

15 Click "public" and [Edit].

16 Select [READ WRITE] or [READ CREATE] from [Community rights] and click [OK] ([READ WRITE] is recommended).

When the "public" does not exist in the [Accepted Community Names] list:

Follow the steps below to add the community.

1. Click [Add].
2. Select [READ WRITE] or [READ CREATE] from [Community rights] ([READ WRITE] is recommended).
3. Enter the "public" in the [Community] field and click [Add].

17 Configure the hosts from which SNMP packets are accepted.

When accepting SNMP packets from any host:

1. Click [Accept SNMP packets from any host].

When accepting SNMP packets from the specified hosts:

1. Click [Accept SNMP Packets from These Hosts].
2. Click [Add].
3. Enter the host name, IP or IPX address of the server on which ServerView Console is installed and click [Add].

18 Click [OK].

POINT

- In Windows 2003, the initial setting for the message PopUp (Messenger) is disabled. To perform message PopUp in the ServerView’s monitoring function, follow the steps below to set the PopUp.

1. Click [Start] → [Administrative Tools].
2. Click [Manage Computers].
3. On the left tree, click [Services and Applications] → [Services].
4. Click [Messenger] on the right hand side of the window.

5. Click the [Action] menu → [Properties].
6. Click the [General] tab.
7. Select [Automatic] for [Startup Type] and click [OK].

■ For Windows 2000:

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click the [Network and Dialup Connections] icon.

3 Click the [Advanced] menu → [Optional Networking Components].

4 Perform one of the following:

When the [Management and Monitoring Tools] in [Optional Networking Components Wizard] is already checked:

1. Click the [Management and Monitoring Tools] and click [Details], then make sure that the [Simple Network Management Protocol (SNMP)] is checked.
   If this check box is already checked, the SNMP service has been already installed. In this case, go to Step 5.

When the [Management and Monitoring Tools] in [Optional Networking Components Wizard] is not checked:

Follow the steps below to install the SNMP service.

1. Check the [Management and Monitoring Tools] in [Optional Networking Components Wizard].
2. Click [Details] and make sure that the [Simple Network Management Protocol (SNMP)] is checked, and then click [OK].
3. In the [Optional Networking Components Wizard], click [Next].
4. Follow the messages on the window.

5 Double-click the [Administrative Tools] icon in the [Control Panel].

6 Double-click the [Manage Computers] icon.

7 On the left tree, click [Services and Applications] → [Services].

8 Click [SNMP Service] on the right hand side of the window.

9 Click the [Action] menu → [Properties].

10 Click the [Traps] tab.

11 If the "public" is already in the [Community name] field, select "public".

If not, enter "public" in the [Community name] field and click [Add to list].

12 Click [Add] in the [Trap destinations] section.

13 Enter the host name, IP or IPX address of the server on which ServerView Console is installed and click [Add].

When installing ServerView Console on single server environment, enter its own host name, IP or IPX address.
When operating multiple ServerView Consoles, enter each host name, IP or IPX address.

14 Click the [Security] tab.

15 Click the "public".

16 Click [Edit].

17 Select [READ_WRITE] or [READ_CREATE] from [Community rights] and click [OK] ([READ_WRITE] is recommended).

When the "public" does not exist in the [Accepted Community Names] list:

Follow the steps below to add the community.

1. Click [Add].
2. Select [READ_WRITE] or [READ_CREATE] from [Community rights] ([READ_WRITE] is recommended).
3. Enter "public" in the [Community] field.
4. Click [Add].

18 Configure the hosts from which SNMP packets are accepted.

When accepting SNMP packets from any host:

1. Click [Accept SNMP packets from any host].

When accepting SNMP packets from the specified hosts:

1. Click [Accept SNMP Packets from These Hosts].
2. Click [Add].
3. Enter the host name, IP or IPX address of the server on which ServerView Console is installed and click [Add].

19 Click [OK].

2.2.2 Changing Binding Order

When multiple IP addresses exist in the server due to mounting multiple LAN cards, etc., ServerView searches IP address in the order set for the network bindings.
The binding order should be set so that the adapter that communicates with the Management Console is searched first.
To change the network binding orders, follow the steps below.

1 Click [Start] → [Control Panel].

2 Double-click "Network Connections".

The [Network Connections] window appears.

3 In the [Network Connection] window, click [Advanced] in the [Advanced] menu.

The [Advanced] window appears.

4 Click the [Adapters and Bindings] tab.

5 Click on the connection for which you would like to change and use the arrow buttons on the right side to change the orders.

2.2.3 Service Pack Application

Service Pack must be applied to all servers and PCs on which each component of ServerView is installed. However, the Service Pack installation is not required for Windows 2003.

- For Windows 2000, apply Service Pack 4 or later.

IMPORTANT

- Make sure that the Service Pack is applied. If the Service Pack is not applied, the operation cannot be guaranteed.
  If the Service Pack has been already applied, it is not required to apply it again.
- Before applying the Service Pack, make sure that the SNMP service is installed on.

2.2.4 Web Server Installation

The functions such as alarm service (refer to "■ Abnormality occurrence notification" (→pg.12)), archive function (refer to "● Archive function" (→pg.13)), and monitoring servers using the Web browser (refer to "1.1.4 Server Monitoring with Web browser" (→pg.14)) are used from the Web browser. To use these functions, the Web server software must be installed on the server.
The followings are the Web server software that ServerView supports.

- For Windows, use one of the following:
  - ServerView Web-Server (Apache for Win32 based)
  - Microsoft Internet Information Server (IIS)
  - Apache2
- For Linux
  - httpd (Apache)

POINT

- If the OS is Linux and ServerView WebExtension/AlarmService is not used, the httpd (or Apache for RHEL-AS2.1 (x86) / ES2.1 (x86)) is not required to install.

■ ServerView Web-Server

The ServerView Web-Server is automatically installed when its installation is selected during the ServerView Console installation.
The ServerView Web-Server is installed at the same time as the ServerView Console when ServerView installation is selected during the set up by ServerStart.

■ Microsoft Internet Information Server (IIS)

To use IIS, it should be installed before the ServerView installation.
The following versions of the IIS are supported for each OS.

table: Supported IIS

OS	Description
Windows 2003	Version 6.0 is supported.
Windows 2000	Version 5.0 is supported.
Windows XP	Version 5.1 is supported.

IMPORTANT

- Do not change the home directory local path and the SCRIPTS local path.
  When these settings are changed, the operational warranty will not be applied.

■ Apache2

To use Apache2 independently, it should be installed before the ServerView installation.

■ httpd (Apache)

If the OS is Linux, RPM for httpd (or for Apache for RHEL-AS2.1 (x86) / ES2.1 (x86)) must be installed before the ServerView Linux installation.

2.2.5 Kernel and RPM Check

Insert the PRIMERGY Documents & Tools CD and execute the following command.

```
# mount /mnt/cdrom/
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH
# ./chkver (for monitored server)
# ./BR_chkver (when installing only ServerView Linux agent on the
monitored server)
```

When the error message about the kernel version appears, make sure that the kernel has been properly updated.
When the error message about insufficient RPM package appears, install the package from the Red Hat Linux CD-ROM.

IMPORTANT

- When the kernel is updated, make sure that the kernel version number matches the kernel-source version number. When they do not match each other, ServerView can not be installed. The kernel version number and the kernel-source version number can be checked by the output results of "uname r". and "rpm -q kernel-source" respectively.

2.3 Installing

This section explains how to install each component of ServerView.

2.3.1 [Windows] Installing ServerView Console

To use the Management Console in Windows, install ServerView Console (Management Console/ServerView WebExtension/AlarmService).

IMPORTANT

- When you want to change or update the Web server (Apache2 or IIS) after the ServerView Console installation, uninstall the ServerView Console and install it again. If ServerView has been automatically installed with ServerStart, the ServerView Web-Server has been selected for the Web server.
- For the system on which the terminal server has been installed, the installation method differs from usual methods. To install ServerView on the terminal server environment, perform the Step 3 below after clicking [Start] → [Control Panel] → [Add/Remove Programs] → [Add Program].

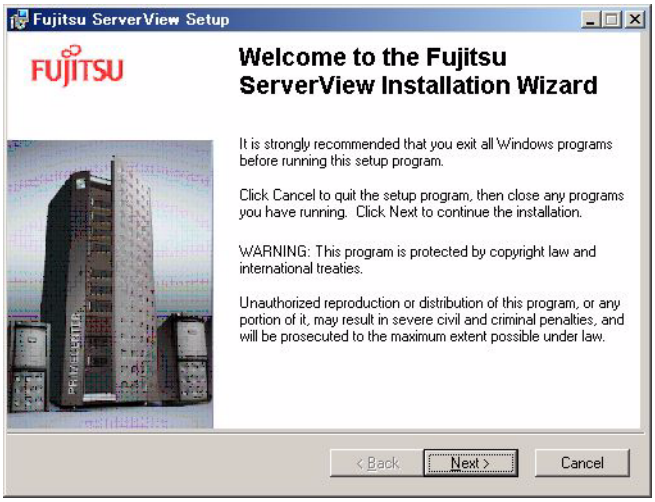
1 Log in as an administrator or with the name of the user having a privilege equal to the administrator.

2 Close all running applications.

3 Insert the PRIMERGY Document & Tool CD and double-click the installer below.

[CD-ROM drive]:\SVMANAGE\ENGLISH\SV_Console.bat

The [Fujitsu ServerView Setup] window appears.



Fujitsu ServerView Setup

Welcome to the Fujitsu ServerView Installation Wizard

It is strongly recommended that you exit all Windows programs before running this setup program.

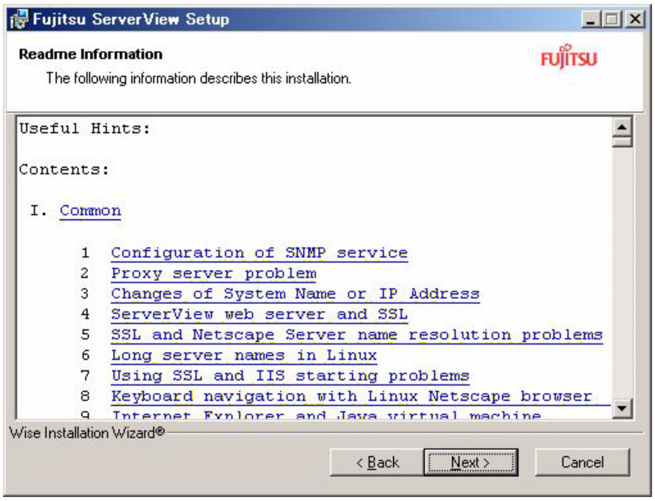
Click Cancel to quit the setup program, then close any programs you have running. Click Next to continue the installation.

WARNING: This program is protected by copyright law and international treaties.

Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.

4 Click [Next].

The [Readme Information] window appears.



Readme Information

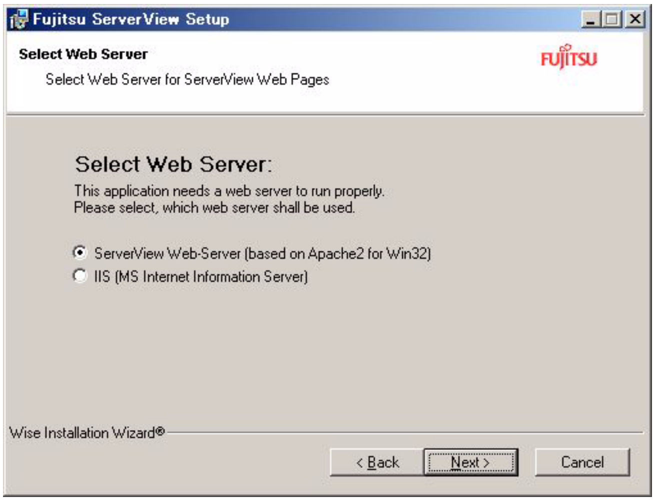
The following information describes this installation.

```
Useful Hints:

Contents:

 I. Common

     1  Configuration of SNMP service
     2  Proxy server problem
     3  Changes of System Name or IP Address
     4  ServerView web server and SSL
     5  SSL and Netscape Server name resolution problems
     6  Long server names in Linux
     7  Using SSL and IIS starting problems
     8  Keyboard navigation with Linux Netscape browser
     9  Internet Explorer and Java virtual machine
```

5 Click [Next].

The [Select Web Server] window appears.

Note that if IIS is not installed, the [Select Web Server] window will not appear.



Select Web Server

Select Web Server for ServerView Web Pages

Select Web Server:

This application needs a web server to run properly.
Please select, which web server shall be used.

● ServerView Web-Server (based on Apache2 for Win32)

○ IIS (MS Internet Information Server)

IMPORTANT

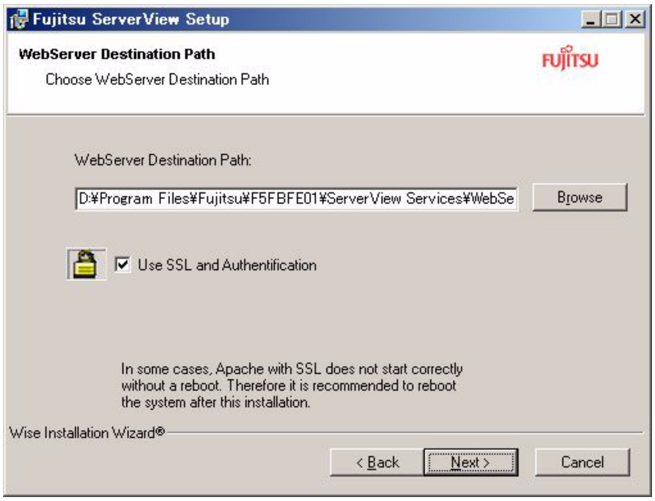
- When the ServerView Web-Server is selected, the Apache2 for Win32-based Web server is installed with ServerView. And the task with the name "At**(**: task ID)" is added to the Windows Task Scheduler.
- When the IIS is selected, the installed IIS is used as a Web server.
- When the Apache2 has been already installed as a Web server, [Apache2 (Installed Apache2 server)] appears instead of [ServerView Web-Server] for the selection item on the [Select Web-Server] window.

6 Select the Web server to use and click [Next].

The [WebServer Destination Path] window appears.

The window varies depending on the selected WebServer.

When [ServerView Web-Server] is selected for the Web server:



Fujitsu ServerView Setup

WebServer Destination Path

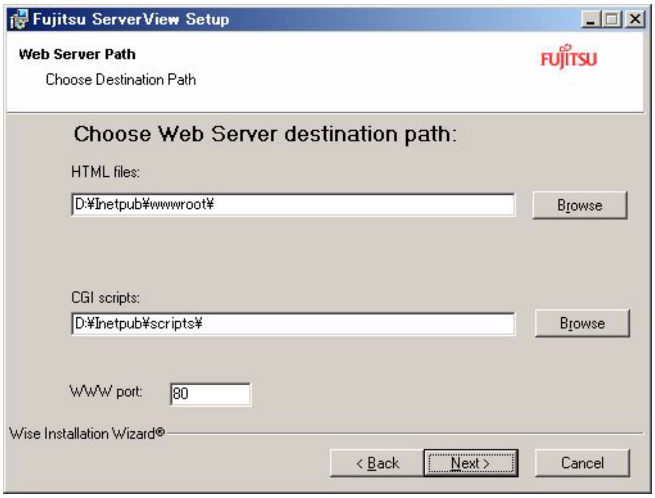
Choose WebServer Destination Path

WebServer Destination Path: D:¥Program Files¥Fujitsu¥F5FBFE01¥ServerView Services¥WebSe

☑ Use SSL and Authentification

In some cases, Apache with SSL does not start correctly without a reboot. Therefore it is recommended to reboot the system after this installation.

When [IIS] or [Apache2 (Installed Apache2 server)] is selected for the Web server:



Fujitsu ServerView Setup

Web Server Path

Choose Destination Path

Choose Web Server destination path:

HTML files: D:¥Inetpub¥wwwroot¥

CGI scripts: D:¥Inetpub¥scripts¥

WWW port: 80

POINT

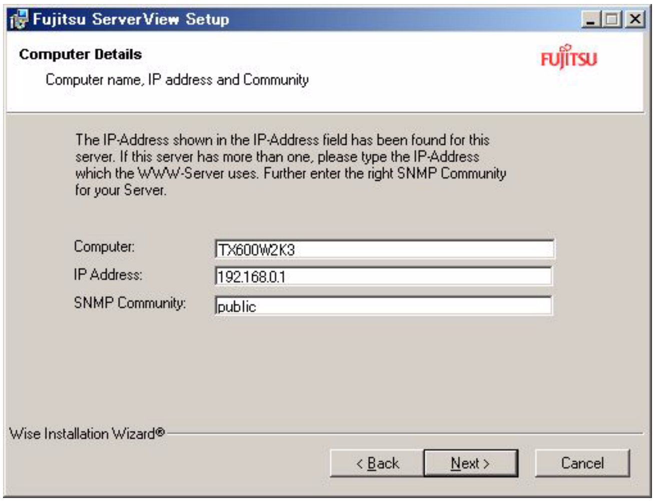
- When ServerView Web-Server is selected from the [Select WebServer] window, the [Use SSL and authentication] checkbox appears.
  If the checkbox is selected, SSL connection is possible when connecting to the Web, and then authentication will be requested when connection is made.
  When this option is selected, it is recommended to restart the system after the installation.

IMPORTANT

- Do not change the folder of the location displayed.
- The IIS port number cannot be acquired automatically. If the IIS port number is changed, enter the changed port number.
- When ServerView is automatically installed with ServerStart, the use of the SSL and authentication is enabled. To disable them, uninstall ServerView. Then, start the ServerView installer and install ServerView again.
  For the user name and password used for authentication, "svuser" is set as the user name and "fsc" is set as the password by default.

7 Click [Next].

The [Computer Details] window appears.



Computer Details

Computer name, IP address and Community

The IP-Address shown in the IP-Address field has been found for this server. If this server has more than one, please type the IP-Address which the WWW-Server uses. Further enter the right SNMP Community for your Server.

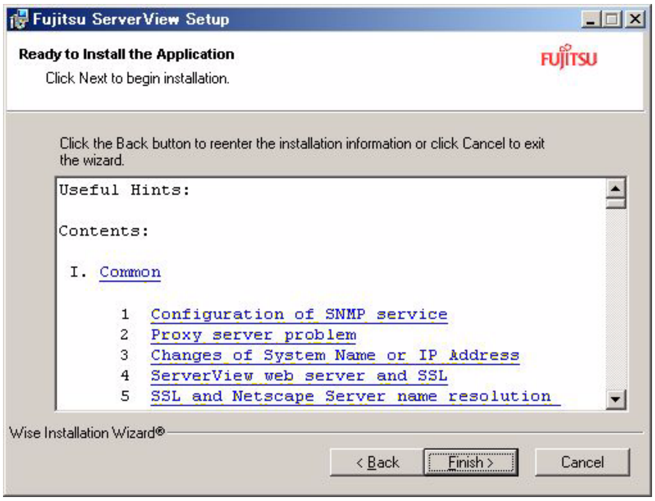
Computer: TX600W2K3

IP Address: 192.168.0.1

SNMP Community: public

8 Click [Next].

The [Ready to Install the Application] window appears.



Ready to Install the Application

Click Next to begin installation.

Click the Back button to reenter the installation information or click Cancel to exit the wizard.

```
Useful Hints:

Contents:

 I. Common

      1  Configuration of SNMP service
      2  Proxy server problem
      3  Changes of System Name or IP Address
      4  ServerView web server and SSL
      5  SSL and Netscape Server name resolution
```

9 Click [Finish].

Installation starts.

After finishing installation, the [Exit] window will appear.

10 Click [Exit].

Now, the installation has been finished. After the installation has been finished, refer to "2.4 Checking after Installation" (→pg.51) and set the settings required to operate ServerView.

2.3.2 [Windows] Installing ServerView Agent (Monitored Server)

Install "ServerView Agent" on the Windows monitored server.

IMPORTANT

- When you want to update ServerView Agent, uninstall the ServerView Agent and install it again.
- For the system on which the terminal server has been installed, the installation method differs from usual methods. To install ServerView Agent on the terminal server environment, perform the Step 3 below after clicking [Start] → [Control Panel] → [Add/Remove Programs] → [Add Program].

1 Log in as an administrator or with the name of the user having a privilege equal to the administrator.

2 Close all running applications.

3 Insert the PRIMERGY Document & Tool CD and start the installer below.

[CD-ROM drive]:\SVMANAGE\ENGLISH\Agents_setup.EXE

The [ServerView System Requirements] window appears.

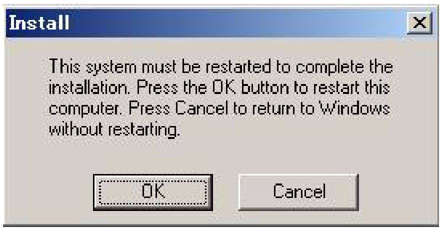
4 Click [OK].

The [ServerView Hints] window appears.

5 Click [OK].

When the installation has finished, the restart message appears.

6 Click [OK] or [Cancel].



Install

This system must be restarted to complete the installation. Press the OK button to restart this computer. Press Cancel to return to Windows without restarting.

After the installation has been finished, refer to "2.4 Checking after Installation" (→pg.51) and set the settings required to operate ServerView.

2.3.3 [Linux]Installing ServerView Linux (Monitored Server)

Install ServerView Linux (ServerView Linux Agent/ServerView WebExtension/AlarmService) on the Linux monitored server.
To install ServerView Linux Agent, ServerView WebExtension, and Linux version of the alarm service at the same time, perform the subsequent steps.
When ServerView WebExtension/AlarmService is installed on a server under the Linux only environment, the status of other servers can be monitored.
There are two ways to install ServerView Linux:

- Installation using the install script (→pg.34)
- Manual installation (→pg.38)
  If the installation using the installation script cannot be performed, install ServerView Linux manually.

POINT

- When you want to install only ServerView Linux Agent (without ServerView WebExtension/ AlarmService) on the Linux monitored server, refer to "2.3.4 [Linux]Installing ServerView Linux (Monitored Server, only ServerView Linux Agent)" (→pg.41).
  If ServerView WebExtension/AlarmService is not used, the httpd (or Apache for RHEL-AS2.1 (x86) / ES2.1 (x86)), openssl, and mod_ssl are not required to install. Even if ServerView WebExtension/ AlarmService are not installed, the monitored server (ServerView Linux Agent) can be monitored from the Windows Management Console.
- When the atd service is stopped, the following message appears. This message must be ignored since it is for RX800.

```
Unable to build the binary module package
srvmagt_mods_bin in the background
Please build the package manually with the fol-
lowing command if necessary:
 /etc/init.d/eecd_mods_src makepackage
```

IMPORTANT

- This document describes the ServerView Linux installation from the Document & Tool CD. When you download and install ServerView Linux from our Web page, the specified part of the directory should be changed to the directory to which the files are transmitted and expanded.

■ Installing ServerView Linux with Installation Script

Using the installation script within the PRIMERGY Document & Tool CD allows you to install ServerView Linux Agent/ServerView WebExtension/AlarmService and edit the SNMP service setting file (/etc/snmp/snmpd.conf).
When the installation script terminates with an error message displayed, refer to "A.1 Troubleshooting of Installation Script" (→pg.246).

POINT

- The /etc/snmp/snmpd.conf can also be edited manually after the installation of ServerView.
  After editing manually, execute the "/etc/rc.d/init.d/snmpd restart" command.

IMPORTANT

- The snmpd.conf may also exist under the /usr/share/snmp directory.
  The snmpd also reads the settings of the /usr/share/snmp/snmpd.conf.
  Edit the /usr/share/snmp/snmpd.conf as necessary.

● How to start the installation script

To install with the installation script, log in as superuser and insert the PRIMERGY Document & Tool CD, and then execute the following command.

```
# mount /mnt/cdrom/
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH
# ./inssv
```

● Entering SNMP trap destination IP address

After the title of installation script is displayed, the SNMP trap destination IP address will be asked to enter. If ServerView Linux Agent has been already installed, you will be asked to enter the SNMP trap destination IP address after the uninstallation is done.
Enter the IP address to which you want to send SNMP trap and press the [Enter] key.
It is not necessary to enter the server's own IP address (127.0.0.1) at this point since it is automatically set.
If the trap is sent to multiple devices, enter the IP address of each device.
The IP address entered is written into the /etc/snmp/snmpd.conf.
After entering the IP address, press the [e] key. Go to the steps below.
The following is the example of the output result.

```
ServerView install / RPM control script version VX.XLXX
Copyright(C) FUJITSU LIMITED 2005

checking necessary RPMs ...
RPMs check [OK]

available disk space check [OK]
(Uninstallation is performed when ServerView Linux Agent has been
installed already)

Please input IP-addresses to where you want to send SNMPtraps.
(Note : No need to input the IP address of this server,it will be added
automatically by the installer.)

Press "e" key to continue.

>192.168.1.10
>192.168.1.20
>e
```

● Entering the Location

Enter the server location (installation location).
The entered location is written to syslocation item in the /etc/snmp/snmpd.conf and will be shown in a property of the server at the ServerView as a "Location".
Up to 64B of single byte character sets can be entered.
After the location is entered, press the [Enter] key. Go to the step below.
When nothing is entered and the [Enter] key is pressed, the default values will be written.

```
Please input a location of the server.
The specified location will be shown as a property of the server at the
ServerView console.

You can change the location of the server later,
by editing the /etc/snmp/snmpd.conf.
>(Example: computer room L200)
```

● Entering the administrator

Enter the server administrator name.
The entered administrator name is written to syscontact item in the /etc/snmp/snmpd.conf and will be shown in a property of the server at the ServerView as an "Administrator".
Up to 64B of single byte character sets can be entered.
When the administrator name is entered, press the [Enter] key. Go to the step below.
When nothing is entered and the [Enter] key is pressed, the default values will be written.

```
Please input a name of the root user.
The specified name will be shown as a property of the server at the
ServerView console.

You can change the name of the root user later,
by editing the /etc/snmp/snmpd.conf.
>(Example: Your name)
```

● Executing RPM

The RPMs of ServerView Linux agent and ServerView WebExtension/AlarmService are executed. The output result of each RPM is displayed.
The example below is the normal output result.

```
install srvmagt-mods_src, please wait...
Compiling modules for 2.4.21-9.0.1.ELsmp
copa(Ok) cop(Ok) ihpci(Ok) ipmi(Ok) smbus(Ok) [  OK  ]
Loading modules: ipmi smbus msr cpuid [  OK  ]

job 1 at 2004-05-11 21:34

install srvmagt-eecd, please wait...
Starting eecd[  OK  ]

install srvmagt-agents, please wait...
Stopping snmpd: [  OK  ]
Starting snmpd: [  OK  ]
Starting agent scagt[  OK  ]
Starting agent busagt[  OK  ]
Starting agent hdagt[  OK  ]
Starting agent mylexagt[  OK  ]
Starting agent unixagt[  OK  ]
Starting agent etheragt[  OK  ]
Starting agent biosagt[  OK  ]
Starting agent securagt[  OK  ]
Starting agent statusagt[  OK  ]
Starting agent invagt[  OK  ]
Starting agent vvagt[  OK  ]

install Alarm Service, please wait...

install WebExtention, please wait...

Restarting eecd and srvmagt, please wait...
```

● Checking execution result

When ServerView Linux Agent and ServerView WebExtension/AlarmService has been successfully installed, the successful completion message below is shown on the last line.

```
ServerView’s RPMs are installed successfully.
```

When the message above is not displayed, refer to "A.1 Troubleshooting of Installation Script" (→pg.246).
When the message above is displayed, execute the following command to unmount the CD and eject the PRIMERGY Document & Tool CD, and then perform the steps shown in "2.4.6 [Linux]Setting each Service (for Monitored Server)" (→pg.58).

```
# cd
# umount /mnt/cdrom
```

■ Installing ServerView Linux manually

When the installation using the install script cannot be performed, log in as superuser and follow the steps below to install it manually.

1 Check the operation environment.

Refer to "1.3 System requirements" (→pg.17), and check that the system meets the requirements to install ServerView Linux Agent and ServerView WebExtension/AlarmService.

2 Check the installation status of the package (RPM).

To check the requirements for ServerView, insert the PRIMERGY Document & Tool CD and execute the following command.

```
# mount /mnt/cdrom/
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH
# ./chkver
```

If the ServerView within the PRIMERGY Document & Tool CD has been installed, the message below is displayed.

```
RPMs check [OK]
```

If an error message indicating insufficient RPM package is displayed, install the package from the Red Hat Linux CD-ROM.

3 If ServerView Linux Agent has been already installed, uninstall the ServerView.

Execute the following command. The uninstall commands are enclosed with parentheses.

```
rpm -q srvmagt-agents   (rpm -e srvmagt-agents)
rpm -q srvmagt-eecd     (rpm -e srvmagt-eecd)
rpm -q srvmagt-mods_src (rpm -e srvmagt-mods_src)
```

4 Create the backup file of the /etc/snmp/snmpd.conf.

Execute the following command.

```
# ls /etc/snmp/
snmpd.conf
```

Perform the following command only when the "snmpd.conf.org file" does not exist.

```
# cp /etc/snmp/snmpd.conf /etc/snmp/snmpd.conf.org
```

5 Copy the /etc/snmp/snmpd.conf from the PRIMERGY Document & Tool CD.

From the CD-ROM, copy the /etc/snmp/snmpd.conf to which the default values have been set. Execute the following command.

```
# mount /mnt/cdrom/
# cp /mnt/cdrom/Svmanage/Linux/snmpd.conf /etc/snmp/snmpd.conf
# chmod 644 /etc/snmp/snmpd.conf
```

6 Edit the /etc/snmp/snmpd.conf.

Edit the following items in the /etc/snmp/snmpd.conf.
For details about the snmpd.conf, refer to the comments in the /etc/snmp/snmpd.conf.

table: Setting Items in the /etc/snmp/snmpd.conf File

Item	Settings
com2sec	Add the setting example below into the com2sec item. Setting example: com2sec svSec default public com2sec svSec localhost public com2sec svSec *** public [Note]: Assign one of the following setting values to "***". default: Allows the accesses from all servers/clients. localhost: Allows the access from own server. <IP address>: Allows the access from the specific server/client. <subnet>/<netmask>: Allows the access from specific network.
trapsink	Add the setting example below into the trapsink item. Setting example: trapsink 127.0.0.1 public trapsink <IP address> public Specify the IP address to which you want to send SNMP trap. It is not necessary to enter the server's own IP address (127.0.0.1) again since it has been set already. If you want to send the trap to multiple devices, enter the different IP addresses with the same form in multiple lines.
syslocation	Add the setting example below into the syslocation item. Setting example: syslocation computer room L200 Enter the server location (installation location) . It will be shown in a property of the server at the ServerView as a "Location".
syscontact	Add the setting example below into the syscontact item. Setting example: syscontact Your name Enter the server administrator name. It will be shown in a property of the server at the ServerView as an "Administrator".

IMPORTANT

- To reflect the changes of the /etc/snmp/snmpd.conf, it is necessary to execute the "/etc/rc.d/init.d/snmpd restart" command.

7 Execute the RPM command.

```
# /etc/rc.d/init.d/snmpd restart
# cd /mnt/cdrom/Svmanage/Linux/Agent/
# rpm -i srvmagt-mods_src-X.XXXX.redhat.rpm
# rpm -i srvmagt-eecd-X.XXXX.redhat.rpm
# rpm -i srvmagt-agents-X.XXXX.redhat.rpm
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH/Sv/
# ./InstallAlarmService.sh AlarmServiceStarter-X.X-X.i386.rpm
(When updating: # ./InstallAlarmService.sh -upgrade AlarmServiceS-
tarter-X.X-X.i386.rpm)
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH/WebExt/
# ./InstallWebExtension.sh WebExtensionStarter-X.X-X.i386.rpm
(When updating: # ./InstallWebExtension.sh -upgrade WebExtension-
Starter-X.X-X.i386.rpm)
(XX means version number.)
```

8 Verify the execution result of the RPM command.

To verify whether the installation has been properly done, execute the following command. When the RPM command has been successfully completed, the version number of the installed RPM package is displayed.

```
# rpm -q srvmagt-mods_src <- command
srvmagt-mods_src-X.XX-XX <- execution result

# rpm -q srvmagt-eecd
srvmagt-eecd-X.XX-XX

# rpm -q srvmagt-agents
srvmagt-agents-X.XX-XX

# rpm -q AlarmService
AlarmService-X.X-X

# rpm -q WebExtension
WebExtension-X.X-X
(XX indicates version number.)
```

9 Set the default setting of ServerView Linux Agent.

Execute the following command.

```
# groupadd svuser
# cp /mnt/cdrom/Svmanage/Linux/config /etc/srvmagt/config
# chmod 644 /etc/srvmagt/config
# cd /
# /etc/rc.d/init.d/srvmagt stop
# /etc/rc.d/init.d/eecd stop
# /etc/rc.d/init.d/eecd start
# /etc/rc.d/init.d/srvmagt start
```

10 Set the setting for after installation.

Execute the following command.

```
# cd
# umount /mnt/cdrom
```

Remove the PRIMERGY Document & Tool CD and execute the steps shown in "2.4.6 [Linux]Setting each Service (for Monitored Server)" (→pg.58).

■ Checking RPM version

The version of the installed RPM package can be checked by executing the following command.

```
# rpm -q srvmagt-mods_src <- command
srvmagt-mods_src-X.XX-XX <- execution result

# rpm -q srvmagt-eecd
srvmagt-eecd-X.XX-XX

# rpm -q srvmagt-agents
srvmagt-agents-X.XX-XX

# rpm -q AlarmService
AlarmService-X.X-X

# rpm -q WebExtension
WebExtension-X.X-X
(XX indicates version number.)
```

2.3.4 [Linux]Installing ServerView Linux (Monitored Server, only ServerView Linux Agent)

Install ServerView Linux (only ServerView Linux Agent) on the Linux monitored server.
There are two ways to install ServerView Linux:

- Installation using the install script (→pg.34)
- Manual installation (→pg.38)
  If ServerView Linux cannot be installed using the installation script, install ServerView Linux manually.

POINT

- This document describes the ServerView Linux installation from Document & Tool CD. When you download and install ServerView Linux from our Web page, the specified part of the directory should be changed to the directory to which the files are transmitted and expanded.
- If ServerView WebExtension/AlarmService is not used, the httpd (or Apache for RHEL-AS2.1 (x86) / ES2.1 (x86)), openssl, and mod_ssl are not required to install. Even if ServerView WebExtension/ AlarmService are not installed, the monitored server (ServerView Linux Agent) can be monitored from the Windows Management Console.

■ Installing ServerView Linux Agent with installation script

Using the installation script within the PRIMERGY Document & Tool CD allows you to install ServerView Linux Agent and edit the SNMP service setting file (/etc/snmp/snmpd.conf).
When the installation script terminates with an error message displayed, refer to "A.1 Troubleshooting of Installation Script" (→pg.246).

POINT

- The /etc/snmp/snmpd.conf can also be edited manually after the installation of ServerView.
  After editing manually, execute the "/etc/rc.d/init.d/snmpd restart" command.

IMPORTANT

- The snmpd.conf may also exist under the /usr/share/snmp directory.
  The snmpd also loads the settings of the /usr/share/snmp/snmpd.conf.
  Edit the /usr/share/snmp/snmpd.conf as necessary.

● How to start the installation script

To install with the installation script, log in as superuser and insert the PRIMERGY Document & Tool CD, and then execute the following command.

```
# mount /mnt/cdrom/
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH
# ./BR_inssv
```

● Entering SNMP trap destination IP address

After the title of installation script is displayed, the SNMP trap destination IP address will be asked to enter. If ServerView Linux Agent has been already installed, the SNMP trap destination IP address will be asked to enter after the uninstallation is done.
Enter the IP address to which you want to send SNMP trap and press the [Enter] key.
It is not necessary to enter the server's own IP address (127.0.0.1) since it is automatically set. If you want to send the trap to multiple devices, enter the IP address for each device. The IP address entered is written into the /etc/snmp/snmpd.conf.
After you have entered the IP address, press the [e] key. Go to the steps below.
The following is the example of the output result.

```
ServerView install / RPM control script version VX.XLXXifor BXj
Copyright(C) FUJITSU LIMITED 2005

checking necessary RPMs ...
RPMs check [OK]

available disk space check [OK]
(Uninstallation is performed when ServerView Linux has been
installed already)

Please input IP-addresses to where you want to send SNMP-traps.
(Note : No need to input the IP address of this server,
        it will be added automatically by the installer.)

Press "e" key to continue.

>192.168.1.10
>192.168.1.20
>e
```

● Entering the location

Enter the server location (installation location).
The entered location is written to syslocation item in the /etc/snmp/snmpd.conf and will be shown in a property of the ServerView as a "Location".
Up to 64 byte sets can be entered.
After the location is entered, press the [Enter] key. Go to the steps below.
When nothing is entered and the [Enter] key is pressed, the default values are written.

```
Please input a location of the server.
The specified location will be shown as a property of the server at
the ServerView console.
You can change the location of the server later,
by editing the /etc/snmp/snmpd.conf.
>(Example: computer room L200)
```

● Entering the administrator

Enter the server administrator name.
The entered administrator name is written to syscontact item in the /etc/snmp/snmpd.conf and will be shown in a property of the ServerView as an "Administrator".
Up to 64 byte sets can be entered.
When the administrator name is entered, press the [Enter] key. Go to the steps below.
When nothing is entered and the [Enter] key is pressed, the default values are written.

```
Please input a name of the root user.
The specified name will be shown as a property of the server at the
ServerView console.

You can change the name of the root user later,
by editing the /etc/snmp/snmpd.conf.
>(Example: Your name)
```

● Executing RPM

The RPM of ServerView Linux agent is executed.
The output result of each RPM is displayed.
The example below is the normal output result.

```
install srvmagt-mods_src, please wait...
Compiling modules for 2.4.21-9.0.1.ELsmp
copa(Ok) cop(Ok) ihpci(Ok) ipmi(Ok) smbus(Ok) [  OK  ]
Loading modules: ipmi smbus [  OK  ]

job 2 at 2004-05-11 21:39

install srvmagt-eecd, please wait...
Starting eecd[  OK  ]

install srvmagt-agents, please wait...
Stopping snmpd: [  OK  ]
Starting snmpd: [  OK  ]
Starting agent scagt[  OK  ]
Starting agent busagt[  OK  ]
Starting agent hdagt[  OK  ]
Starting agent mylexagt[  OK  ]
Starting agent unixagt[  OK  ]
Starting agent etheragt[  OK  ]
Starting agent biosagt[  OK  ]
Starting agent securagt[  OK  ]
Starting agent statusagt[  OK  ]
Starting agent invagt[  OK  ]
Starting agent vvagt[  OK  ]
```

● Checking execution result

When ServerView Linux Agent has been successfully installed, the successful completion message below is shown in the last line.

```
ServerView's RPMs are installed successfully.
```

When the message above is not displayed, refer to "A.1 Troubleshooting of Installation Script" (→pg.246).
When the message above is displayed, execute the following command to unmount the PRIMERGY Document & Tool CD, and then perform the steps shown in "2.4.7 [Linux]Setting each Service (When installing only ServerView Linux Agent on the monitored server)" (→pg.63).

```
# cd
# umount /mnt/cdrom
```

■ Installing ServerView Linux manually

When ServerView cannot be installed using the install script, log in as superuser and follow the steps below to install it manually.

1 Check the operation environment.

Refer to "1.3 System requirements" (→pg.17), and check that the system meets the requirements to install ServerView Linux Agent.

2 Check the installation status of the package (RPM).

To check the requirements for ServerView, insert the PRIMERGY Document & Tool CD and execute the following command.

```
# mount /mnt/cdrom/
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH
# ./BR_chkver
```

If the ServerView within the PRIMERGY Document & Tool CD has been installed, the message below is displayed.

```
RPMs check [OK]
```

The error message about insufficient RPM package is displayed, install the package from the Red Hat Linux CD-ROM.

3 If ServerView Linux Agent has been already installed, uninstall the ServerView.

Execute the following command. The uninstall commands are enclosed with parentheses.

```
rpm -q srvmagt-agents   (rpm -e srvmagt-agents)
rpm -q srvmagt-eecd     (rpm -e srvmagt-eecd)
rpm -q srvmagt-mods_src (rpm -e srvmagt-mods_src)
```

4 Create the backup file of the /etc/snmp/snmpd.conf.

Execute the following command.

```
# ls /etc/snmp/
snmpd.conf
```

Perform the following command only when the snmpd.conf.org does not exist.

```
# cp /etc/snmp/snmpd.conf /etc/snmp/snmpd.conf.org
```

5 Copy the /etc/snmp/snmpd.conf from the PRIMERGY Documents & Tools CD.

From the CD-ROM, copy the /etc/snmp/snmpd.conf to which the default values have been set.

Execute the following commands.

```
# mount /mnt/cdrom/
# cp /mnt/cdrom/Svmanage/Linux/snmpd.conf /etc/snmp/snmpd.conf
# chmod 644 /etc/snmp/snmpd.conf
```

6 Edit the /etc/snmp/snmpd.conf.

Edit the following items in the /etc/snmp/snmpd.conf.

For details about the snmpd.conf, refer to the comments in the /etc/snmp/snmpd.conf.

table: snmpd item

Items	Settings
com2sec	Add the setting example below into the com2sec item. • com2sec svSec default public • com2sec svSec default public • com2sec svSec *** public Assign one of the following setting values to ***. • default: Allows the accesses from all servers/clients. • localhost: Allows the access from own server. • <IP address>: Allows the access from the specific server/client. • <subnet>/<netmask>: Allows the access from specific network.
trapsink	Add the setting example below into the trapsink item. • trapsink 127.0.0.1 public • trapsink <IP address> public Specify the IP address to which you want to send SNMP trap. It is not necessary to enter the server's own IP address (127.0.0.1) again since it has been set already. If you want to send the trap to multiple devices, enter the different IP addresses with the same form in multiple lines.
syslocation	Add the setting example below into the syslocation item. • syslocation computer room L200 Enter the server location (installation location). It will be shown in a property of the ServerView as a "Location".
syscontact	Add the setting example below into the syscontact item. • syscontact Your name Enter the server administrator name. It will be shown in a property of the ServerView as an "Administrator".

IMPORTANT

- To reflect the changes of the /etc/snmp/snmpd.conf, you need to execute the "/etc/rc.d/init.d/snmpd restart" command.

7 Execute the RPM command.

```
# /etc/rc.d/init.d/snmpd restart
#cd /mnt/cdrom/Svmanage/Linux/Agent/
# rpm -i srvmagt-mods_src-X.XXXX.redhat.rpm
# rpm -i srvmagt-eecd-X.XXXX.redhat.rpm
# rpm -i srvmagt-agents-X.XXXX.redhat.rpm
(XX indicates version number.)
```

8 Verify the execution result of the RPM command.

To verify whether the installation has been properly done, execute the following command. When the RPM command has been successfully completed, the version number of the installed RPM package is displayed.

```
# rpm -q srvmagt-mods_src <- command
srvmagt-mods_src-X.XX-XX <- execution result

# rpm -q srvmagt-eecd
srvmagt-eecd-X.XX-XX

# rpm -q srvmagt-agents
srvmagt-agents-X.XX-XX
(XX indicates version number.)
```

9 Set the default setting of ServerView Linux Agent.

Execute the following commands.

```
# groupadd svuser
# cp /mnt/cdrom/Svmanage/Linux/config /etc/srvmagt/config
# chmod 644 /etc/srvmagt/config
# cd /
# /etc/rc.d/init.d/srvmagt stop
# /etc/rc.d/init.d/eecd stop
# /etc/rc.d/init.d/eecd start
# /etc/rc.d/init.d/srvmagt start
```

10 Set the setting for after installation.

Execute the following commands.

```
# cd
# umount /mnt/cdrom
```

Remove the PRIMERGY Document & Tool CD and execute the steps shown in "2.4.7 [Linux]Setting each Service (When installing only ServerView Linux Agent on the monitored server)" (→pg.63).

■ Checking RPM version

The version of the installed RPM package can be checked by executing the following command.

```
# rpm -q srvmagt-mods_src <- command
srvmagt-eecd-X.XX-XX <- execution result

# rpm -q srvmagt-eecd
srvmagt-eecd-X.XX-XX

# rpm -q srvmagt-agents
srvmagt-agents-X.XX-XX
(XX indicates version number.)
```

■ Installing ServerView WebExtension/AlarmService (Linux)

1 Check the operation environment.

Refer to "1.3 System requirements" (→pg.17), and check that the system meets the requirements for installation.

2 Check the installation status of the package (RPM).

Execute the following command to check the installation status of the RPM required for ServerView WebExtension/AlarmService to properly operate.

```
# rpm -q net-snmp
(use ucd-snmp for RHEL-AS2.1(x86)/ES2.1(x86))
# rpm -q compat-libstdc++-7.3
(unnecessary for RHEL-AS2.1(x86)/ES2.1(x86))
# rpm -q httpd (use apache for RHEL-AS2.1(x86)/ES2.1(x86))
# rpm -q gnom-libs (for RHEL-AS3(x86)/AS3(IPF)/ES3(x86))
# rpm -q rpm
# rpm -q gawk
# rpm -q openssl
# rpm -q mod_ssl
```

If RPM has been installed, "RPM name-XX.XX-XX" will be displayed (XX indicates version number).
If RPM has not been installed, install it from Red Hat Linux CD-ROM.

3 Execute the RPM command.

```
# mount /mnt/cdrom/
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH/Sv/
# ./InstallAlarmService.sh AlarmServiceStarter-X.X-X.i386.rpm
(When updating: # ./InstallAlarmService.sh -upgrade AlarmServiceS-
tarter-X.X-X.i386.rpm)
# cd /mnt/cdrom/Svmanage/Linux/ENGLISH/WebExt/
# ./InstallWebExtension.sh WebExtensionStarter-X.X-X.i386.rpm
(When updating: # ./InstallWebExtension.sh -upgrade WebExtension-
Starter-X.X-X.i386.rpm)
(XX indicates version number.)
```

4 Verify the execution result of the RPM command.

To verify whether the installation has been properly done, execute the following command. When the RPM command has been successfully completed, the version number of the installed RPM package is displayed.

```
# rpm -q AlarmService <- command
AlarmService-X.X-X <- execution result

# rpm -q WebExtension
WebExtension-X.X-X
 (XX means version number.)
```

5 Edit the httpd service setting file.

Edit the ServerName directive in the /etc/httpd/conf/httpd.conf (Apache HTTP server setting file).

For details about ServerName directive, refer to Red Hat Linux manuals and comments in the httpd.conf.

IMPORTANT

- When Alarm Service/WebExtension is used in Linux, use the Apache attached to the Red Hat CD-ROM as a Web server and use the default settings of DocumentRoot/ServerRoot.
When these settings are changed, operations cannot be guaranteed.

When the server's OS is 64 bit RHEL-AS3 (IPF):

Add the following (underlined text) into the http.conf.

Above step is not required when only ServerView Linux Agent has been installed.

```
# "/var/www/cgi-bin" should be changed to whatever your ScriptAliased
# CGI directory exists, if you have that configured.
#
<Directory "/var/www/cgi-bin">
  AllowOverride None
  Options None
  Order allow,deny
  Allow from all
</Directory>
#
<Directory "/var/www/cgi-bin/ServerView">
  SetEnv LD_ASSUME_KERNEL 2.4.19
</Directory>
#
```

When the Apache (httpd) version is 2 or later:

Change the following line (underlined text).

Above step is not required when only ServerView Linux Agent has been installed.

```
Before change: LanguagePriority en da nl et fr de el it ja kr no pl pt
pt-br ltz ca es sv tw
After change: LanguagePriority ja en da nl et fr de el it kr no pl pt
pt-br ltz ca es sv tw

Before change: AddDefaultCharset ISO-8859-1 or AddDefaultCharset UTF-
8
After change: AddDefaultCharset off
```

6 Restart the httpd service.

Enter the following command and restart the httpd service.

```
# /etc/rc.d/init.d/httpd restart
```

7 Set the auto start of the httpd service.

Use the setup command to set the auto start of the httpd service.

For details about the setup command, refer to "■ Auto-start setting of SNMP service/httpd service" (→pg.59).

8 Set the firewall.

Refer to "■ Setting the firewall" (→pg.60).

2.4 Checking after Installation

After the installation of ServerView, perform the following settings to ensure that ServerView properly operates.

The settings vary depending on the OS.

- For Windows:
  - Installing Microsoft Internet Explorer (→pg.52)
  - Installing Java™ 2 Runtime Environment Standard Edition (→pg.53)
  - Setting an administrative user (→pg.54)
  - Registering the interrupt information of the optional devices (→pg.54)
  - Extending Web service (when IIS is selected for the Web server on Windows 2003) (→pg.57)
- For Linux:
  - Installing Netscape Navigator/Communicator V6.2 or later (→pg.52)
  - Installing Java™ 2 Runtime Environment Standard Edition (→pg.53)
  - Setting each service (for the monitored server) (→pg.58)
  - Setting each service (when installing only ServerView Linux Agent on the monitored server) (→pg.63)

POINT

- Refer to "2.4.8 Changing Computer Information after Installation" (→pg.68) and set the settings when the computer name or IP address of the server has been changed after the installation.

POINT

- Microsoft Virtual Machine is not supported in ServerView V3.40 or later.

2.4.1 Installing a Web Browser

Install a Web browser on the server or PC to use ServerView.

■ When the OS on the server or PC is Windows:

Install Microsoft Internet Explorer 6.0 or later on the server and PC shown below.

- Server and PC on which ServerView Console is installed
- Server and PC that show the server monitoring window of ServerView WebExtension
- Server and PC that show the RSB Web interface window

To use ServerView with Windows OS, follow the steps below to perform further settings of the Web site after the installation of the Microsoft Internet Explorer.

1 Launch the Microsoft Internet Explorer.

2 Select [Internet Options] from the [Tools] menu.

3 Click the [Security] tab and select [Intranet] or [Trusted sites].

4 Click [Sites] to add the following URL (http:// server IP address) respectively.

When ServerView Console is installed on the server:

- Server's own URL
- The URL of the server on which ServerView WebExtension (Windows/Linux) is installed

When the server shows the server monitoring window of ServerView WebExtension:

- The URL of the server on which ServerView WebExtension (Windows/Linux) is installed

When the server shows the RSB Web interface window:

- URL set to RSB

■ When the OS on the Server or PC is Linux:

Install Netscape Navigator/Communicator V 6.2 or later, or Mozilla 1.3 or later, on the server and PC shown below.

- Server on which ServerView Linux is installed
- Server and PC that show the server monitoring window of ServerView WebExtension
- Server and PC that show the RSB Web interface window

2.4.2 Installing Java™ 2 Runtime Environment Standard Edition

Install Java™ 2 Runtime Environment Standard Edition on the server or PC to use ServerView.
The installer of Java™ 2 Runtime Environment Standard Edition has been stored on the PRIMERGY Document & Tool CD. However, the stored Java version may not be compatible with the Web browser depending on the browser version. The following setting method of the plugin for Linux browser (Mozilla) is provided as an example, however, the setting content (Java Plugin directory path) varies depending on the browser version. Please check the adaptive conditions of your browser in advance.

● For Windows

- Server and PC on which ServerView Console is installed
- Server and PC that use Web browser to show the server monitoring window of ServerView WebExtension
- Server and PC that show the RSB Web interface window

● For Linux

- Server on which ServerView Linux is installed
- Server and PC that use Web browser to show the server monitoring window of ServerView WebExtension
- Server and PC that show the RSB Web interface window

■ Installation steps

1 Insert the PRIMERGY Document & Tool CD and start the installer below.

For Windows

[CD-ROM drive]:\SVMANAGE\TOOLS\ j2re-1_4_2_06-windows-i586-p.exe

For Linux

```
# mount /mnt/cdrom
# cd /mnt/cdrom/Svmanage/Linux/TOOLS
# rpm -iv j2re-1_4_2_06-linux-i586.rpm
# cd /your browser's folder/plugins
# ls

when the javaplugin.so file already exists
# rm -fr /your browser's folder /plugins/javaplugin.so
When your browser is Mozilla 1.3 or RHEL-AS2.1(x86)/ES2.1(x86)
# ln -s /usr/java/j2re1.4.2_06/plugin/i386/ns610/libjavaplugin_oji.so
When your browser is Mozilla 1.4 or higher
# ln -s /usr/java/j2re1.4.2_06/plugin/i386/ns610-gcc32/
libjavaplugin_oji.so

# cd
# umount /mnt/cdrom
```

2.4.3 Setting an Administrative User

When ServerView Console is installed, a group (FUJITSU SVUSER) that has administrator privileges for ServerView will be set. Only the users belonging to this group can perform the operation such as changing the monitored server setting and shutting down the server. FUJITSU SVUSER group and the users who belong to it are not created automatically. Create the FUJITSU SVUSER group for each monitored server and add ServerView administrators to the group.

POINT

- An administrator user in ServerView means the user who belongs to the "FUJITSU SVUSER" group.
- In Windows 2003, the administrative privilege is not given when the password is not set for the administrative user account. Be sure to set the password.
- Even when "global" group is added to the FUJITSU SVUSER group, the administrative privilege is not given to the user who belongs to the group added. Add only users to the FUJITSU SVUSER group.
- When the Remote Service Board is mounted on the server, the user account that has the same user name and password as those registered to the "FUJITSU SVUSER" group on the server system must be created on the Remote Service Board. For details about creating user account for the Remote Service Board, refer to "5.3.7 [User Config] Page" (→pg.234).
- When the administrative user is set for the groups other than SVUSER, the logon immediately after starting the program may be failed. In this case, click [Cancel] to exit the logon window. Then, set the logon settings again in the [Login] tab of the [Properties] on the server.
- The ServerView administrative user must belong to the Administrators group.
  If the administrative user does not belong to the Administrators group, the user cannot perform Shutdown or ASR setting from ServerView.
  Therefore, add the ServerView administrative user to the Administrators group.

2.4.4 Registering the Interrupt Information of the Optional Devices

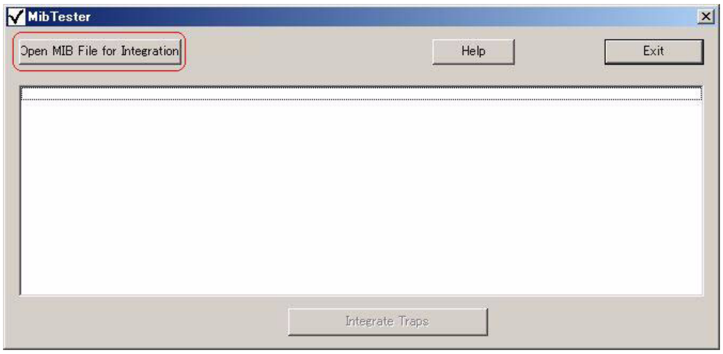
Register the interrupt information of the optional devices on the management server or PC.

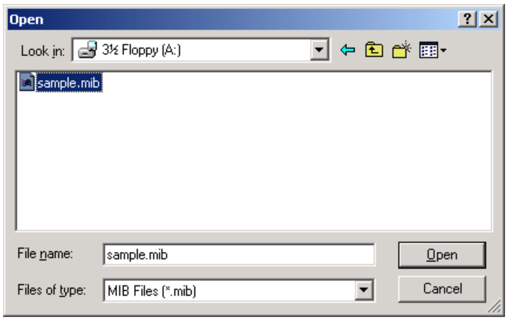
■ For Windows

1 Click [Start] → [Programs] → [Fujitsu ServerView] → [MIB Integrator].

The process of interrupt information registration starts, and the [Mib Tester] window will open.

2 Click [Open MIB File for Integration] and select the MIB file to register.

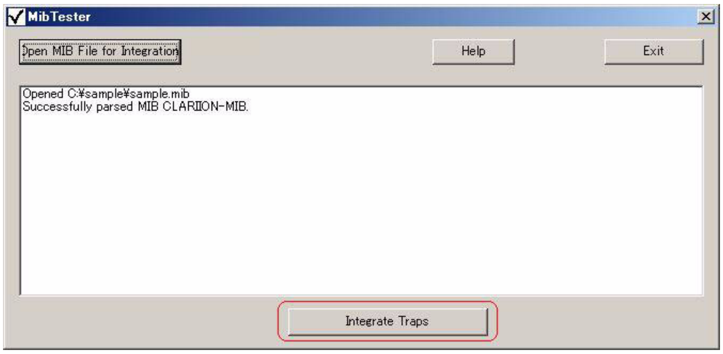




File name: sample.mib

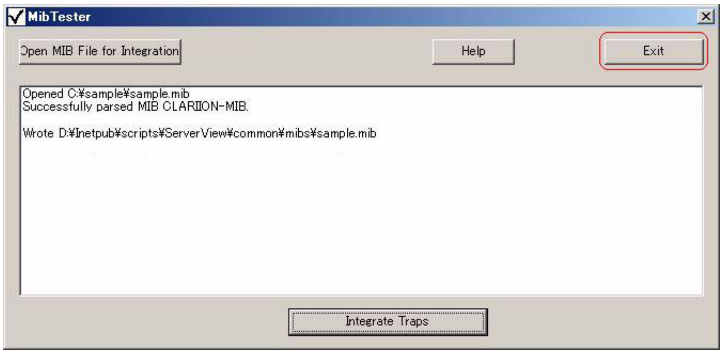
Files of type: MIB Files (*.mib)

3 Make sure that the file selected in Step 2 is highlighted and click [Integrate Traps] to process the registration.



```
Opened C:¥sample¥sample.mib
Successfully parsed MIB CLARIION-MIB.
```

4 Make sure that the following message is displayed, and click [Exit] to finish the registration.



Opened C:¥sample¥sample.mib
Successfully parsed MIB CLARIION-MIB.

Wrote D:¥Inetpub¥scripts¥ServerView¥common¥mibs¥sample.mib

5 Restart Fujitsu ServerView Services.

1. Click [Start] → [Control Panel] → [Administrative Tools] → [Computer Management].
2. Click [Services] and select [Fujitsu ServerView Services] from the list displayed.
3. Click [Action] menu → [Restart].

■ For Linux

1 Copy the appropriate mib file into the following folder.

```
/var/www/cgi-bin/ServerView/SnmpTrap/mibs
```

2 Enter the following command and restart the Fujitsu Alarm Service.

```
#/etc/rc.d/init.d/sv_fwdserver restart
```

IMPORTANT

- When replacing the existing mib file registered, pay attention to the difference between upper and lower case of the mib file name. If the file is improperly registered, it would be registered as a new mib file.

2.4.5 Extending the Web Service

If ServerView Console has been installed on Windows 2003 and IIS has been selected for the Web server, allow [ALL Unknown CGI Extensions] or perform [Add new Web Service Extensions].
The following steps describe each procedure.

■ Allowing all unknown CGI extensions

1 In IIS Manager, expand the local computer and click the [Web Service Extension].

2 In the details pane, select the disabled [All Unknown CGI Extensions] and click [Allow].

3 Click [OK].

■ Adding new Web service extensions

1 In IIS Manager, expand the local computer and click the [Web Service Extension].

2 In the details pane, click [Add new Web Service Extensions].

3 Type the name of the new Web service extension in the [Extension name] box.
Example: "ServerView"

4 Click [Add].

5 Type the path into the [Path to file] box or click [Browse] to navigate to any files that the new Web service extension requires, and click [OK].
Add all exe files under the following folders.
\Inetpub\scripts\ServerView\SnmpTrap
\Inetpub\scripts\ServerView\SnmpArchive
\Inetpub\scripts\ServerView\common
\Inetpub\scripts\ServerView\SnmpView

6 After having finished adding all files, click [OK].

7 Return to the [Web Service Extension] window and right click on the extension name added in the Step 3 above, and then click [Allow].

2.4.6 [Linux]Setting each Service (for Monitored Server)

■ Editing the httpd service setting file

1 Edit the /etc/httpd/conf/httpd.conf.

Edit the ServerName directive in the /etc/httpd/conf/httpd.conf (Apache HTTP server setting file).

For details about ServerName directive, refer to Red Hat Linux manuals and comments in the httpd.conf.

IMPORTANT

- When Alarm Service/WebExtension is used in Linux, use the Apache attached to the Red Hat CD-ROM as a Web server and use the default settings of DocumentRoot/ServerRoot.
  When these settings are changed, the operational warranty will not be applied.

When the server's OS is 64 bit RHEL-AS3 (IPF):

Add the following (underlined text) into the http.conf.

Above step is not required when only ServerView Linux Agent has been installed.

```
# "/var/www/cgi-bin" should be changed to whatever your ScriptAliased
# CGI directory exists, if you have that configured.
#
<Directory "/var/www/cgi-bin">
  AllowOverride None
  Options None
  Order allow,deny
  Allow from all
</Directory>
#
<Directory "/var/www/cgi-bin/ServerView">
  SetEnv LD_ASSUME_KERNEL 2.4.19
</Directory>
#
```

When the Apache (httpd) version is 2 or later:

Change the following line (underlined text).

Above step is not required when only ServerView Linux Agent has been installed.

```
Before change: LanguagePriority en da nl et fr de el it ja kr no pl pt
pt-br ltz ca es sv tw
After change: LanguagePriority ja en da nl et fr de el it kr no pl pt
pt-br ltz ca es sv tw

Before change: AddDefaultCharset ISO-8859-1 or AddDefaultCharset UTF-8
After change: AddDefaultCharset off
```

2 Restart the httpd service.

Enter the following command and restart the httpd service.

```
# /etc/rc.d/init.d/httpd restart
```

■ Auto-start setting of SNMP service/httpd service

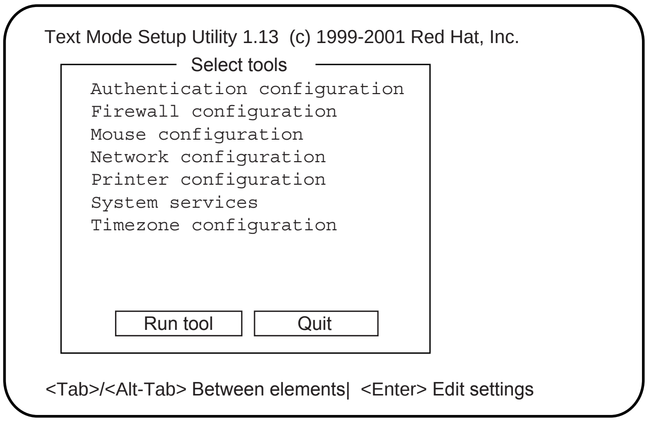
When the service is not enabled by the setup command, the service must be started manually next time you restart the system.
If the service is enabled, the service starts automatically when the system is restarted. To enable the service with the setup command, follow the steps below.
The window for the setup command varies depending on the Red Hat distribution, however, the setting items are the same.

1 Log in as a superuser and execute the following command.

```
# /usr/sbin/setup (setup command is dedicated for Red Hat)
```

The menu window appears.

2 Select [System services] and press the [Enter] key.

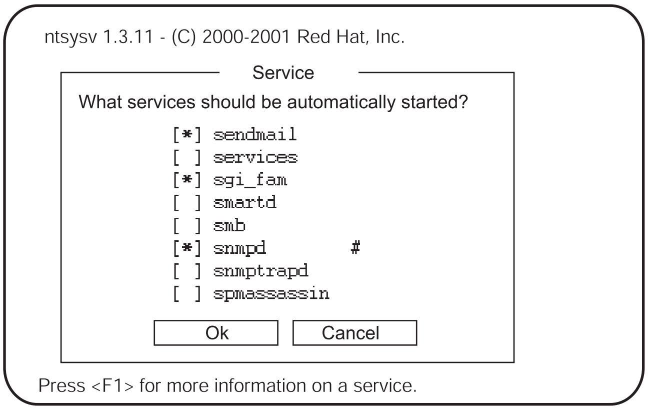


Text Mode Setup Utility 1.13 (c) 1999-2001 Red Hat, Inc.

<Tab>/<Alt-Tab> Between elements| <Enter> Edit settings

The [Services] window appears.

3 Add "*" to the items of "snmpd" and "httpd".



ntsysv 1.3.11 - (C) 2000-2001 Red Hat, Inc.

Service

What services should be automatically started?

```
[*] sendmail
[ ] services
[*] sgi_fam
[ ] smartd
[ ] smb
[*] snmpd        #
[ ] snmptrapd
[ ] spmassassin
```

Press <F1> for more information on a service.

To add "*" mark, position the cursor on the item and press the [Space] key.

4 Use the [Tab] key to position the cursor on the [OK] and press the [Enter] key.

5 Use the [Tab] key to position the cursor on the [Stop] and press the [Enter] key.

The setup is completed.

■ Setting the firewall

Setting the firewall is done when installing Linux or by using the setup command.
This section describes the setting with setup command.
The windows differ between the Linux installation and the setup command execution; however, the setting items are the same. For details about how to set up during the Linux installation, refer to the Red Hat Linux manuals and the following set up method.

IMPORTANT

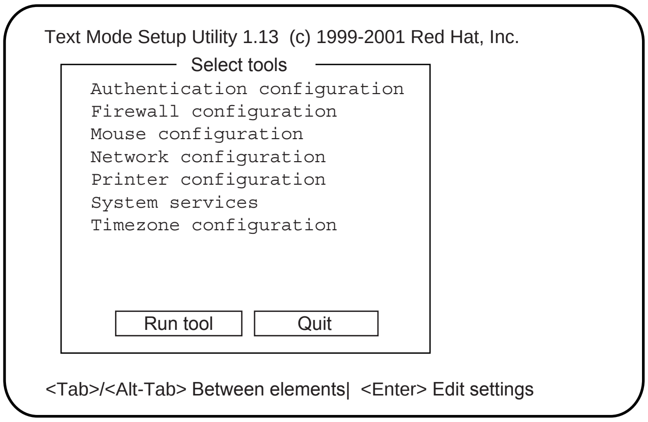
- The firewall setting below is required for ServerView to operate.
  For details about the firewall setting, refer to Red Hat Linux manuals.

1 Log in as a superuser and execute the following command.

```
# usr/sbin/setup
```

The menu window appears.

2 Select [Firewall configuration] and press the [Enter] key.

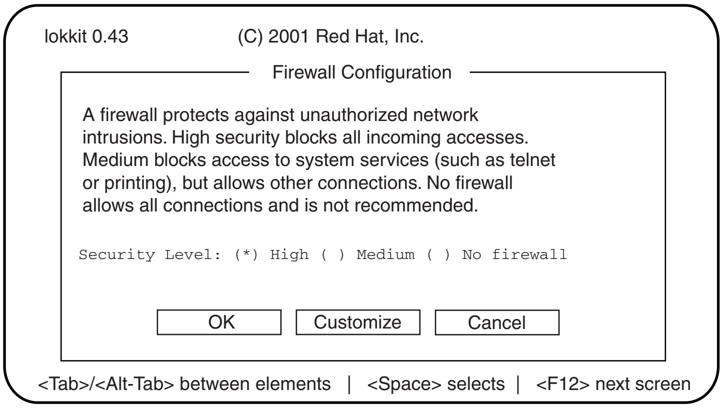


Text Mode Setup Utility 1.13 (c) 1999-2001 Red Hat, Inc.

<Tab>/<Alt-Tab> Between elements| <Enter> Edit settings

The [Firewall Configuration] window appears.

3 Add "*" mark to the [High] and use the [Tab] key to position the cursor on the [Customize], and then press the [Enter] key.



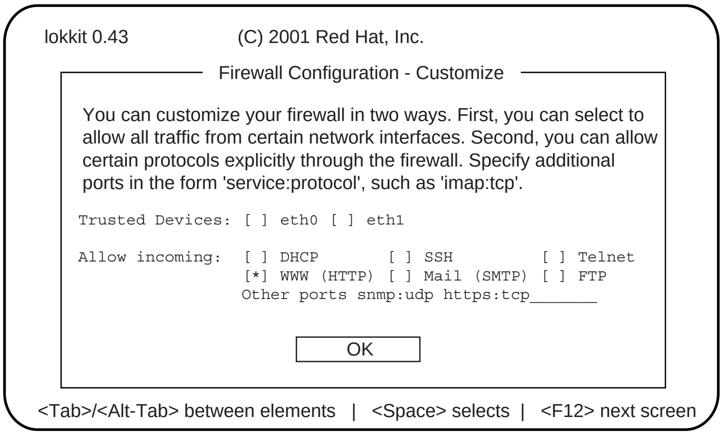
```
lokkit 0.43                 (C) 2001 Red Hat, Inc.
                  Firewall Configuration

  A firewall protects against unauthorized network
  intrusions. High security blocks all incoming accesses.
  Medium blocks access to system services (such as telnet
  or printing), but allows other connections. No firewall
  allows all connections and is not recommended.

  Security Level: (*) High ( ) Medium ( ) No firewall

            OK        Customize        Cancel

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen
```

The [Firewall Configuration – Customize] window appears.

IMPORTANT

- When [No firewall] is selected here, the settings below are not required.

4 Set the protocols to use.



```
lokkit 0.43                 (C) 2001 Red Hat, Inc.
             Firewall Configuration - Customize

  You can customize your firewall in two ways. First, you can select to
  allow all traffic from certain network interfaces. Second, you can allow
  certain protocols explicitly through the firewall. Specify additional
  ports in the form 'service:protocol', such as 'imap:tcp'.

  Trusted Devices: [ ] eth0 [ ] eth1

  Allow incoming:  [ ] DHCP        [ ] SSH          [ ] Telnet
                   [*] WWW (HTTP)  [ ] Mail (SMTP)  [ ] FTP
                   Other ports snmp:udp https:tcp_______

                              OK

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen
```

Set the protocols below.

table: Protocol setting

Protocol	Description
http, https	Required to start WebServer
snmp	Required to start snmp service

1. Select "WWW (HTTP)".

   Add [*] mark.
2. Enter "snmp:udp https:tcp" into [Other ports].
3. Use the [Tab] key to position the cursor on the [OK] and press the [Enter] key.

POINT

- To enable other functions, it is required to set this firewall.

5 Use the [Tab] key to position the cursor on the [OK] and press the [Enter] key.

6 Select [Stop] and press the [Enter] key.

7 Edit the packet filtering setting.

For RHEL-AS2.1 (x86)/ES2.1 (x86):

Edit the /etc/sysconfig/ipchains file.

Add the four lines below.

```
-A input -s 0/0 -d 0/0 161 -p udp -j ACCEPT
-A input -s 0/0 161 -d 0/0 -p udp -j ACCEPT
-A input -s 0/0 -d 0/0 162 -p udp -j ACCEPT
-A input -s 0/0 162 -d 0/0 -p udp -j ACCEPT
```

For RHEL-AS3 (x86)/AS3 (IPF)/ES3 (x86):

Edit the /etc/sysconfig/iptables.

Add the four lines below.

```
-A RH-Firewall-1-INPUT -m state --state NEW -m udp -p udp --dport
161 -j ACCEPT
-A RH-Firewall-1-INPUT -m state --state NEW -m udp -p udp --sport
161 -j ACCEPT
-A RH-Firewall-1-INPUT -m state --state NEW -m udp -p udp --dport
162 -j ACCEPT
-A RH-Firewall-1-INPUT -m state --state NEW -m udp -p udp --sport
162 -j ACCEPT
```

8 Reflect the packet filtering setting.

Execute the following commands.

For RHEL-AS2.1 (x86)/ES2.1 (x86):

```
# /etc/rc.d/init.d/ipchains restart
```

For RHEL-AS3 (x86)/AS3 (IPF)/ES3 (x86):

```
# /etc/rc.d/init.d/iptables restart
```

■ Setting to set, shut down, and restart ASR from ServerView Console

To perform the ASR (Automatic Server Reconfiguration & Restart) settings, including fan/temperature/restart, or turn the power on/off, the user will be asked to type the user name and the password of the administrative user.
Follow the steps below to set the administrative user.

IMPORTANT

- An administrator user in ServerView means the user who belongs to the "svuser" group.
  The "svuser" group is automatically created when ServerView is installed with installation script.

1 Create a new user as an administrative user.

Log in as a superuser and execute the following command.

```
# useradd -G svuser <user name>
# passwd <user name>
```

- Specify the "svuser" group to the G option of the useradd command.
  For <user name>, specify the user name of the user to be created.
- Use the passwd command to set the password for the user created. The password must be entered twice for verification. The user name created is enabled when the password is set.
- For details about each command, refer to the useradd (8) and passwd (1) man page.

2 Set the existing user as an administrative user.

Contact with the system administrator to verify whether the existing user to be set belongs to multiple groups and execute the following command.

When the user belongs to only the main group:

```
# usermod -G svuser <user name>
```

When the user belongs to multiple groups:

```
# usermod -G svuser,<affiliation group> <user
name>
```

- Specify the "svuser" group to the G option of the usermod command. To specify multiple groups, specify the groups with the comma (,) separater. If the group to which the user previously belonged is not specified, the user is deleted from the group. Specify all groups to which user must belong. For <user name>, specify the user name to be an administrative user. For details about usermod command, refer to the usermod (8) man page.
- You can also directly set the groups by using vigr command or set the groups by using GUI tools. For details, refer to vigr (8) man page or Red Hat Linux manuals.

2.4.7 [Linux]Setting each Service (When installing only ServerView Linux Agent on the monitored server)

■ Auto-start setting of SNMP service

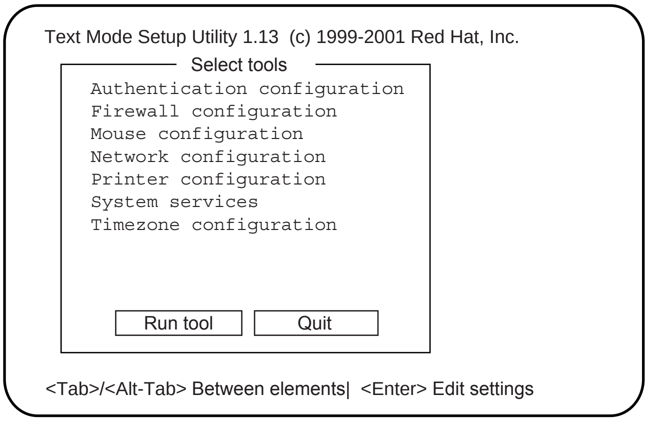
When the service is not enabled by the setup command, the service must be started manually next time you restart the system. If the service is enabled, the service starts automatically when the system is restarted. To enable the service with setup command, follow the steps below. The window for the setup command varies depending on the Red Hat distribution, however, the setting items are the same.

1 Log in as a superuser and execute the following command.

```
# /usr/sbin/setup(setup command is dedicated for Red Hat)
```

The menu window appears.

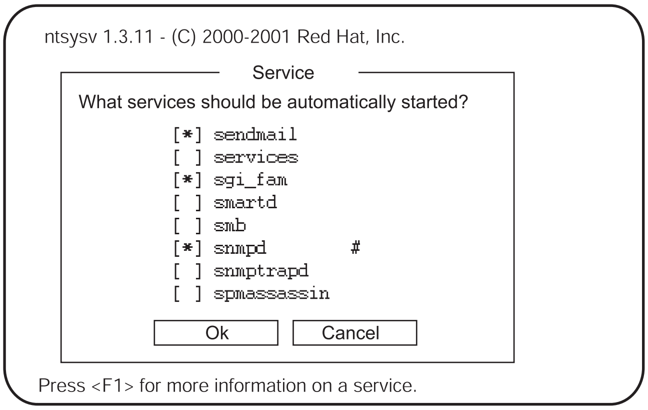
2 Select [System services] and press the [Enter] key.



```
Text Mode Setup Utility 1.13  (c) 1999-2001 Red Hat, Inc.
           Select tools
  Authentication configuration
  Firewall configuration
  Mouse configuration
  Network configuration
  Printer configuration
  System services
  Timezone configuration

      Run tool      Quit

<Tab>/<Alt-Tab> Between elements|  <Enter> Edit settings
```

The [Services] window appears.

3 Add "*" to the items of "snmpd".



```
ntsysv 1.3.11 - (C) 2000-2001 Red Hat, Inc.
               Service
 What services should be automatically started?
          [*] sendmail
          [ ] services
          [*] sgi_fam
          [ ] smartd
          [ ] smb
          [*] snmpd        #
          [ ] snmptrapd
          [ ] spmassassin
            Ok        Cancel
Press <F1> for more information on a service.
```

To add "*" mark, position the cursor on the item and press the [Space] key.

4 Use the [Tab] key to position the cursor on the [OK] and press the [Enter] key.

5 Use the [Tab] key to position the cursor on the [Stop] and press the [Enter] key.

The setup is completed.

■ Setting the firewall

Setting the firewall is done when installing Linux or by using the setup command.
This section describes about the setting with setup command.
The windows differ between the Linux installation and the setup command execution; however, the setting items are the same. For details about how to set up during the Linux installation, refer to the Red Hat Linux manuals and the following set up method.
The window for the setup command varies depending on the Red Hat distribution, however, the setting items are the same.

IMPORTANT

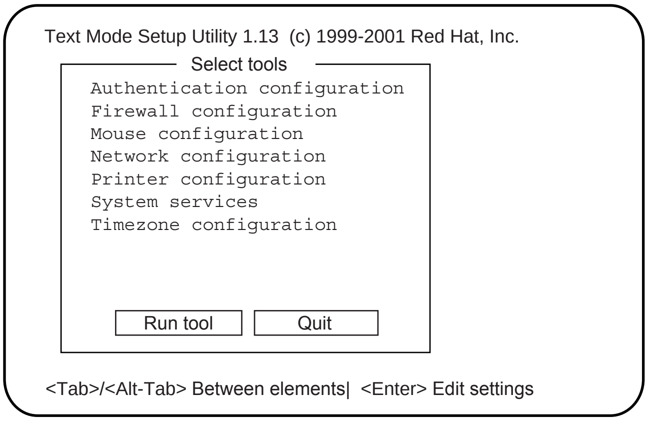
- The firewall setting below is required for ServerView to operate.
  For details about the firewall setting, refer to Red Hat Linux manuals.

1 Log in as a superuser and execute the following command.

```
# /usr/sbin/setup
```

The menu window appears.

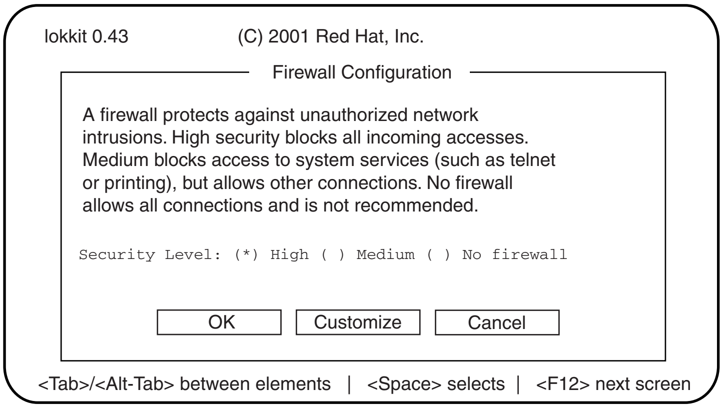
2 Select [Firewall configuration] and press the [Enter] key.



```
Text Mode Setup Utility 1.13  (c) 1999-2001 Red Hat, Inc.
              Select tools
  Authentication configuration
  Firewall configuration
  Mouse configuration
  Network configuration
  Printer configuration
  System services
  Timezone configuration

      [ Run tool ]   [ Quit ]

<Tab>/<Alt-Tab> Between elements|  <Enter> Edit settings
```

The [Firewall Configuration] window appears.

3 Add "*" mark to the [High] and use the [Tab] key to position the cursor on the [Customize], and then press the [Enter] key.



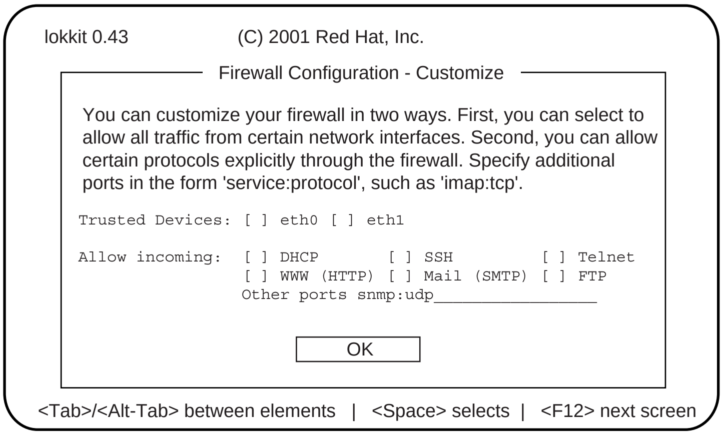
```
lokkit 0.43                  (C) 2001 Red Hat, Inc.

              Firewall Configuration

  A firewall protects against unauthorized network
  intrusions. High security blocks all incoming accesses.
  Medium blocks access to system services (such as telnet
  or printing), but allows other connections. No firewall
  allows all connections and is not recommended.

  Security Level: (*) High ( ) Medium ( ) No firewall

          OK        Customize        Cancel

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen
```

The [Firewall Configuration – Customize] window appears.

IMPORTANT

- When [No firewall] is selected here, the settings below are not required.

4 Set the protocols to use.



```
lokkit 0.43                  (C) 2001 Red Hat, Inc.

          Firewall Configuration - Customize

  You can customize your firewall in two ways. First, you can select to
  allow all traffic from certain network interfaces. Second, you can allow
  certain protocols explicitly through the firewall. Specify additional
  ports in the form 'service:protocol', such as 'imap:tcp'.

  Trusted Devices: [ ] eth0  [ ] eth1

  Allow incoming:  [ ] DHCP        [ ] SSH          [ ] Telnet
                   [ ] WWW (HTTP)  [ ] Mail (SMTP)  [ ] FTP
                   Other ports snmp:udp_________________

                            OK

<Tab>/<Alt-Tab> between elements | <Space> selects | <F12> next screen
```

Set the protocols below.

table: Protocol setting

Protocol	Description
snmp	Required to start snmp service

1. Enter "snmp:udp" into [Other ports].
2. Use the [Tab] key to position the cursor on the [OK] and press the [Enter] key.

POINT

- To enable other functions, it is required to set this firewall.

5 Use the [Tab] key to position the cursor on the [OK] and press the [Enter] key.

6 Select [Stop] and press the [Enter] key.

■ Setting to set, shut down, and restart ASR from ServerView Console

To perform the ASR (Automatic Server Reconfiguration & Restart) settings, including fan/temperature/restart, or turn the power on/off, the user will be asked to type the user name and the password of the administrative user.
Follow the steps below to set the administrative user.

POINT

- An administrator user in ServerView means the user who belongs to the "svuser" group.
  The "svuser" group is automatically created when ServerView is installed with installation script.

1 Create a new user as an administrative user.

Log in as a superuser and execute the following command.

```
# useradd -G svuser <user name>
# passwd <user name>
```

- Specify the "svuser" group to the G option of the useradd command.
  For <user name>, specify the user name of the user to be created.
- Use the passwd command to set the password for the user created. The password must be entered twice for verification. The user name created is enabled when the password is set.
- For details about each command, refer to the useradd (8) and passwd (1) man page.

2 Set the existing user as an administrative user.

Contact with the system administrator to verify whether the existing user to be set belongs to multiple groups and execute the following command.

When the user belongs to only the main group:

```
# usermod -G svuser <user name>
```

When the user belongs to multiple groups:

```
# usermod -G svuser,<affiliation group> <user
name>
```

- Specify the "svuser" group to the G option of the usermod command. To specify multiple groups, specify the groups with the comma (,) separater. If the group to which the user previously belonged is not specified, the user is deleted from the group. Specify all groups to which user must belong. For <user name>, specify the user name to be an administrative user. For details about usermod command, refer to the usermod (8) man page.
- Groups can also be directly set by using vigr command or set the groups by using GUI tools. For details, refer to vigr (8) man page or Red Hat Linux manuals.

2.4.8 Changing Computer Information after Installation

When the name or IP address of the computer that has been installed is changed after the ServerView installation, perform the steps below.

1 If ServerView and AlarmService are currently started, exit all applications.

2 Click [Start] → [Programs] → [Fujitsu ServerView] → [Change Computer Details].

3 Set new computer information.

4 Restart the Console.

5 Start ServerView and check the computer name and IP address in the [Server List].

If the name or IP address has not been changed, perform the following settings:

When the IP address has not been changed:

1. Select the target computer from the Server List.
2. Click the [File] menu → [Server Properties].
3. Click the [Server Address] tab and type the IP address changed.
4. Click [OK].

When the computer name has not been changed:

1. Select the target computer from the Server List.
2. Click the [File] menu → [Remove] to remove the server.
3. Click the [File] menu → [New Server] to register the target computer again.
   For details about the computer registration, refer to "3.1.2 Adding the Monitored Server (Object)" (→pg.71).

Chapter 3

How to Use ServerView

This chapter explains how to use the ServerView functions.

3.1 Starting and Exiting the Management Console

Start the management console in the administration terminal where ServerView Console was installed.

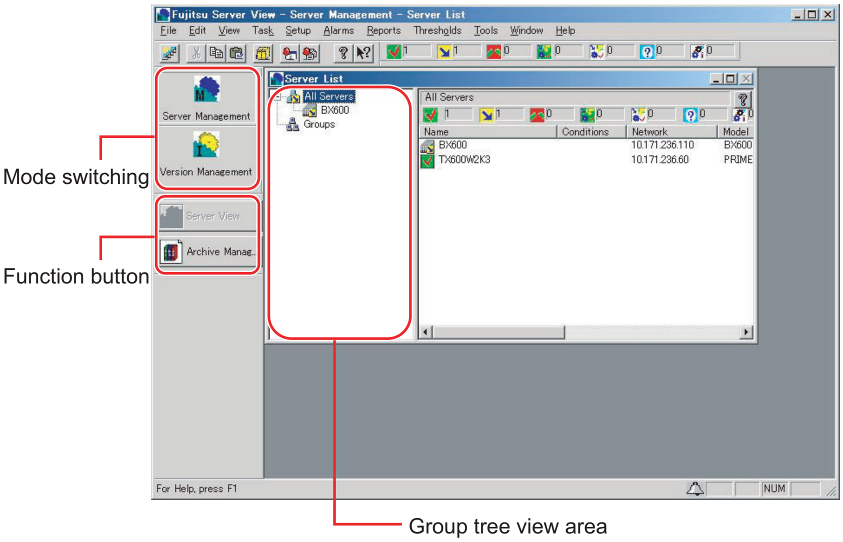
3.1.1 Starting the Management Console

1 Click the [Start] button → [Programs] → [Fujitsu ServerView] → [ServerView].

The management console starts and the [Server Management] window appears.
 The [Server List] window appears within the [Server Management] window. The servers listed in this window will be monitored.

POINT

- When the management console is started at a local server in which ServerView Agent is installed, the local server is automatically added to the server list and displayed in the [Server List] window.



Name	Conditions	Network	Model
BX600		10.171.236.110	BX600
TX600W2K3		10.171.236.60	PRIME

● Mode Switching

The management console includes the [Server Management] mode and the [Version Management] mode. The available functions depend on the selected mode.

● Function Button

The available functions are displayed according to the current mode of management console.

3.1.2 Adding the Monitored Server (Object)

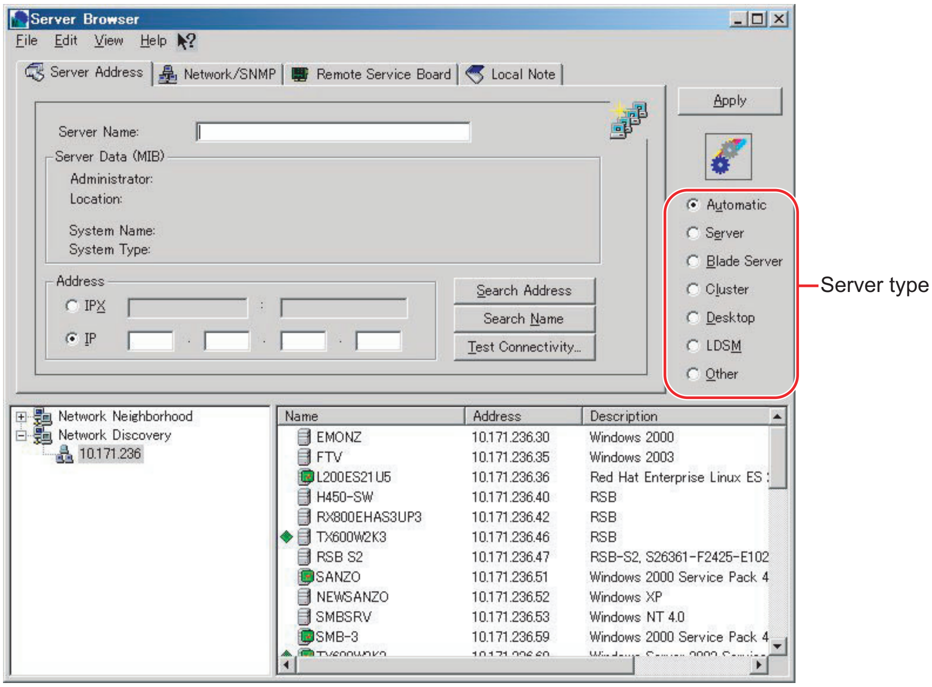
Add the monitored server on your network to the server list.

■ Add a New Server

Specify a newly monitored server (and object) in ServerView.

1 Click the [File] menu → [New Server].

The [Server Browser] window appears and information about the computers existing on the network is displayed.



Name	Address	Description
EMONZ	10.171.236.30	Windows 2000
FTV	10.171.236.35	Windows 2003
L200ES21U5	10.171.236.36	Red Hat Enterprise Linux ES :
H450-SW	10.171.236.40	RSB
RX800EHAS3UP3	10.171.236.42	RSB
TX600W2K3	10.171.236.46	RSB
RSB S2	10.171.236.47	RSB-S2, S26361-F2425-E102
SANZO	10.171.236.51	Windows 2000 Service Pack 4
NEWSANZO	10.171.236.52	Windows XP
SMBSRV	10.171.236.53	Windows NT 4.0
SMB-3	10.171.236.59	Windows 2000 Service Pack 4

2 Specify a server type.

Make sure to specify an accurate type of the server to add. The incorrect entry may prevent the specified server from being properly monitored.
(Example: A general server is assigned with the "Blade Server" type.)

table: Server Types

Type Name	Description
Automatic	The type of the added server is automatically detected.
Server	Add the server monitored by ServerView Agent.
Blade Server	Add a blade server.
Cluster	Select this item when a cluster system is added. This is not supported.
Desktop	Select this item when a desktop is added. This is not supported.
LDSM	Select this item when the server monitored with LDSM is added.
Other	Select this item when the TCP/IP objects other than servers are added.

3 Select the server to be added from the list.

- If you click the server to be added, the value is displayed in [Server Name] and [IP Address].
- Dragging a network group to the group tree view area in the [Server List] window also enables the entire group to be added.

POINT

- The server with the same name or network address as the server entered in the [Server List] window cannot be added.
- It is possible to add an entire network entity to the [Server List] window. In this case, all computers within a network are added as a new group (except for any computers that could not be found).
- Do not add individual server blades installed in a blade server to the [All Servers] group. For a blade server, individual server blades are not monitored. When you try to add a server blade to the [Server List] window, the window appears to confirm whether the entire blade server including the server blade is added.

4 Specify certain values in the following tab windows, if necessary.

[Network/SNMP] Tab

Specify certain network parameters.
[Community Name (a name of user community)]/[Polling Intervals]/[Timeout Value]/[Connection Status Switching Trap (which sends a trap when server status changes)]/[Update Intervals] (the intervals at which an open window is updated) can be specified.

[Remote Service Board] Tab

When the remote service board is supported, specify an IP address for the secondary channel in the server. Click the [RSB Connection Test] to check that the RSB connection can be established.

[Local Note] Tab

Enter a local note for the server. This helps you to find some servers in the [Server List] window etc. MIB information obtained from the agent is added to a local note by clicking [Copy from MIB].

5 Click [Apply].

The [Server List] window is updated.

■ Adding Servers with Network Discovery

By specifying a subnet (the first three digits of IP address) or a domain name, Network Discovery searches and displays computer names and description information within the range.
Search by a subnet enables broader range of search than by the Windows NT domain. It is also possible to specify with DNS reference or PING.
This enables searching Linux servers and blade servers.
If you select a server and click [Apply] or drag, you can easily add your servers to the [Server List] window.

● Add a Subnet to the Network Discovery Group

1 Click the [File] menu → [Add Subnet].

2 Specify the first three digits of IP address.

The computers under the searched IP are listed.

● Add a Domain to the Network Discovery Group

Add a domain to the Network Discovery in one of the following way:

1 Click the [File] menu → [Add Domain].

2 Enter a domain name.

Only the domain name for the Windows NT server can be specified.
When the domain name that Microsoft Windows Network could not detect is entered, an error message appears.

Or

1 Drag and copy a domain in the My Networks group to the Network Discovery group.

All the user-defined domains can be added to the Network Discovery group.

POINT

- Delete a subnet or a domain from the Network Discovery group
  Select a subnet or a domain that you want to delete from the Network Discovery group and then click the [File] menu → [Remove] or press the [Delete] key.
- Change browser options
  Select the IP or domain to change and then right-click to select [Options].
  The following two browser options are provided:
  - Acquire Host Name with DNS, WINS, or Broadcasting
    Generally the SNMP is used to obtain the host name and description information for searching networks. When this option is selected, name resolution is enabled with DNS, WINS, or broadcasting even if the SNMP request fails.
  - Check Controllability Using PING (ICMP)
    Generally a browser uses the SNMP to check an object type and controllability. When this option is selected, it is checked if PING can access to the object even if the SNMP request fails.
- The valid range of browser options
  Browser options settings are enabled for a particular subnet or the entire server browser. When you click [OK] in the browser options window, it is enabled only for the selected subnet. When you click [Update All], it is enabled throughout the server browser.
- When you specify the browser options for the My Networks or any domain, they are assigned throughout the server browser.
- If searching host names or checking with PING is disabled in the options settings window, browsing can stop.
  When these options are selected, it may take very long time to complete the process.
- To display unknown servers
  Click the [View] menu → [Display Unknown Servers] to display unknown servers in the browser window (they are not displayed by default).
  Incidentally, unknown servers involve the following:
  - Do not have its hostname and description information.
  - Do not respond to the PING request (only when the PING option is selected).
- Updating a window
  - If you click the [View] menu → [Update], the information of a browser window is updated.
  - If you click the [View] menu → [Update ALL], the information of all the subnets and domains that are referenced is updated.

■ Creating Groups

Creating a group allows the monitored servers to be managed for each group.

1 Select the group that serves as a parent from the group tree.

2 Click the [File] menu → [New Group].

A new group is created. Specify any group name.

■ Deleting Servers

The servers that will not be monitored later are deleted from the monitored servers for ServerView.

1 Select the server to be deleted from the server list.

2 Click the [File] menu → [Remove].

It is now deleted from the [Server List] window.

■ Filter the Server List

The filter function allows you to restrict servers displayed in the [Server List] window to a specific server.

For example, when there are a lot of monitored servers, this helps you to display servers focusing on the "abnormal" servers only.

1 Click the [File] menu → [Filter Servers].

2 Select whether it is displayed or hidden and click [OK].

3.1.3 Menu List

This section explains menus and pop-up menus displayed on the menu bar.

■ Menu Bar

● [File] Menu

table: [File] Menu

Menu Item	Description
New Server...	Adds a monitored server to the server list.
New Group	Creates a new group in the server list.
Import → Archive	Imports the archive data obtained at the other management servers. This is used in examination of environment.
Import → Server	Imports certain servers to the server list.
Open	Starts the [Server View] window for the server management mode or the [Inventory View] window for the version management mode.
Applications...	All the registered applications are displayed in the application list box. To start the application for an object selected in the server list, select the application from the list box and then click [OK] or double-click the application that you want to start.
Print... Print Preview Printer Settings...	Starts the print dialog recognized from the other applications.
Remove	Deletes some objects from the server list.
Rename	Rename a group in the server list.
Server Properties	Opens the server properties page to define server parameters.
Blade Server Properties	Opens the blade server properties page to define blade server parameters.
Group Properties	Opens the group properties page to define group parameters.
Test Connection	Tests connection to the server and the cluster selected from the server list.
Redetect servers	Start the status check process for the selected object. This process dynamically checks if the server exists in the network. It also checks if the server can respond to the SNMP. The results obtained with this menu item selected are same as the results of automatic status checking regularly performed.
Exit	Exit ServerView.

● [Edit] Menu

table: [Edit] Menu

Menu Item	Description
Cut	Moves a server object to the clipboard.
Copy Paste	Copies or pastes server objects to the server list.
Select All	Selects all the server objects.

● [View] Menu

table: [View] Menu

Menu Item	Description
Tool Bar	Displays or hides the tool bar at the top of the ServerView window.
Status Bar	Displays or hides the status bar at the bottom of the ServerView window.
Status Summary	Displays the status bar (a summary of server status) under the tool bar.
Task Bar	Displays the task bar.
Large Icon Small Icon List Details	Changes server representation in the server list. Each function is same as the Windows Explorer function.
Filter Servers...	Server filter settings allow you to restrict servers displayed in the server list to a specific server.
Redetect All Servers	Detects all the defined servers. This checks that the server exists in the network and that it can respond to the SNMP protocol.

● [Task] Menu

table: [Task] Menu

Menu Item	Description
Server Management	Turns to the server management mode. The server management task function is available.
Version Management	Turns to the version management mode. The version management task function is available.

● [Settings] Menu (on the Server Management Mode Only)

table: [Settings] Menu

Menu Item	Description
Disable Reporting	If this item is selected, all the reports that are collecting regular reports are suspended.
External Application	Defines an external application to be assigned to the server.
Default Settings	Defines server default settings.
Unit Settings	Specifies a measurement unit for temperature representation.
User Authentication	[Log on to Server] window appears. Defines the user name and password to log on to the selected server.

● [Alarm] Menu (on the Server Management Mode Only)

table: [Alarm] Menu

Menu Item	Description
Manager	Alarm Service starts and the alarm manager window appears. The alarm manager can see and edit alarm messages stored in the alarm log list.
Monitor	Alarm Service starts and the alarm monitor window appears. The alarm monitor window displays all the accepted alarms.
Settings	Alarm Service starts and the alarm settings window appears. Assigns settings such as a type of alarm and the alarm notification method.
Accept	Accepts alarms of the selected server.
Accept All	Accepts alarms of all the servers.

● [Reports] Menu (on the Server Management Mode Only)

table: [Reports] Menu

Menu Item	Description
Manager	Starts the report manager.
List	Opens the report list and displays all the active reports.

● [Threshold] Menu (on the Server Management Mode Only)

table: [Threshold] menu

Menu Item	Description
Manager	Starts the threshold manager and enables or disables the server threshold.
List	Opens the threshold list and displays all the active thresholds.

● [Tools] Menu

table: [Tools] Menu

Menu Item	Description
Archive Manager	Starts the archive manager.
Export Manager	Starts the export manager. It is available on the version management mode only.
Global Flash	This is unavailable.

● [Window] Menu

table: [Window] Menu

Menu Item	Description
Arrange Icons Cascade Tile Vertical	Switches the viewing manner for all the windows including the server list. This is same as the window menu of the other Windows applications.
Close All	Closes all the windows except for the server list.

● [Help] Menu

table: [Help] Menu

Menu Item	Description
Search Topics	Starts the ServerView help.
Alarm	Displays the alarm description assigned by Fujitsu.
Icon	Opens sections of the Server Manager Help system including descriptions of the ServerView display elements.
Glossary	Help starts and the system glossary appears.
About ServerView	Displays version information of ServerView.

■ Pop-up Menu

Right-click the managed server and the following menus appear. Functions can also be selected from these menus.

table: Pop-up Menu

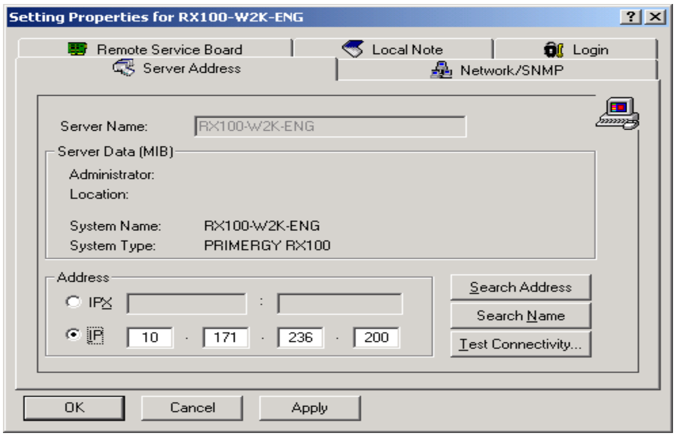
Menu Item	Description
New Server	Adds any undefined monitored server to the server list.
Open	Starts the "ServerView" for the server management mode or the "Inventory View" for the version management mode.
Status	Displays the status list of the selected server.
Applications	Displays the application list.
Export Manager	Starts the export manager. It is available on the version management mode only.
Copy	Copies a server to the clipboard.
Paste	Pastes a server copy on the clipboard.
Remove	Deletes a server.
Server Properties	Starts the server properties.
ASR Properties	Starts the ASR properties.
Test Connection	Test the connection.
Redetect servers	Check the server status.
Threshold manager	Starts the threshold manager.
Report manager	Starts the report manager.
Accept Alarms	Receives the alarm that has not been accepted.
Obtain Archives Now	Obtains archives for the current server status.

3.1.4 Verifying/Changing the Server Settings

To verify/change any settings of your server, perform the following procedure:

1 Right-click on the server and click [Server Properties].

The [Server Properties] window appears.



Server Name: RX100-W2K-ENG

Server Data (MIB)

Administrator:

Location:

System Name: RX100-W2K-ENG

System Type: PRIMERGY RX100

Address

○ IPX

● IP 10 . 171 . 236 . 200

POINT

- [Server Properties] can also appear in the following manner. Select the server and click the [File] menu → [Server Properties].

2 Verify/change the settings in each tab window.

When you specify some items in each tab window, make sure to click [apply] before clicking another tab window.

[Server Address] Tab

This allows you to verify/change the IP address for the server. When the IP address is changed, click [Test Connection] to check if the connection is properly established.

[Network/SNMP] Tab

Certain network parameters are verified/changed. The items that can be specified are [Community Name (a name of user community)] / [Polling Intervals] / [Timeout Value] / [Connection Status Switching Trap(which sends a trap when server status changes)]/ [update Intervals] (the intervals at which an open window is updated).

When a load of your network or server is high, it can be improved by changing [Polling Intervals], [Timeout Value], and [Update Intervals].

[Remote Service Board] Tab

This allows you to verify/change the secondary channel of the server. By clicking [Test Connection], connection with the remote service board can be checked.

If you click [Settings], the Web interface to the remote service board starts and the window appears for entering [User Name] and [Password]. For the Web interface, refer to the following sections.

- For the remote service board (PG-RSB102): "5.3.1 Starting the Web Interface" (→pg.205)

[Local Note] Tab

This allows you to edit a local note for the server. The local note helps you to find certain servers in the [Server List] window. MIB information obtained from the agent is added to a local note by clicking [Copy from MIB]. When all excluding MIB information is identical in a local note, [MIBINFO<>] is displayed in the specific location.

[Login] Tab

Specifies [User Name] and [Password] used to write the assigned value to your server. To specify a password, select the [Password Settings] checkbox before assigning it. Passwords are not stored in any database for the security reason. When [Save Password] is selected, it is enabled until the program exits. If you restart the program, you must specify it again.

[TCP Applications] Tab

This tab appears only when a TCP/IP equipment is selected in the type of server. This allows you to specify applications for TCP/IP equipments.

Click [Browse] and then select the application path and the command line parameter or type them directly.

3 Click [OK] to close the properties window.

3.1.5 Closing the Management Console

Exit ServerView.

1 Click the [File] menu → [Exit].

A confirmation message appears.

2 Click [Yes].

ServerView exits.

3.2 Settings for Server Monitoring

Settings for server monitoring includes the following functions:

- Specify the alarm notification method →"3.2.1 Alarm Settings" (pg.81)
- Monitor with any value →"3.2.2 Threshold Settings" (pg.86)
- Record statistics for running status →"3.2.3 Report Settings" (pg.89)
- Specify measures at the occurrence of faults →"3.2.4 Serious Error Handling (ASR)" (pg.92)

POINT

- These settings items are dispensable. The automated basic monitoring for servers (refer to "1.1.1 Monitoring hardware" (→pg.11)) is performed by installing ServerView Agent.
- The threshold value assigned to the server itself will not be changed even if any thresholds are specified. In addition, the threshold value assigned with the threshold settings cannot work in conjunction with measures at the occurrence of faults (ASR).
- ASR is available only for abnormal temperature, a fan trouble, boot monitoring (boot Watchdog), or Watchdog-timer monitoring (OS Watchdog).

3.2.1 Alarm Settings

When abnormal operation status is detected, an alarm (interruption) is sent through SNMP. Alarm Service provides the various settings for transfer to this received alarm.
This section explains how to configure Alarm Service.

IMPORTANT

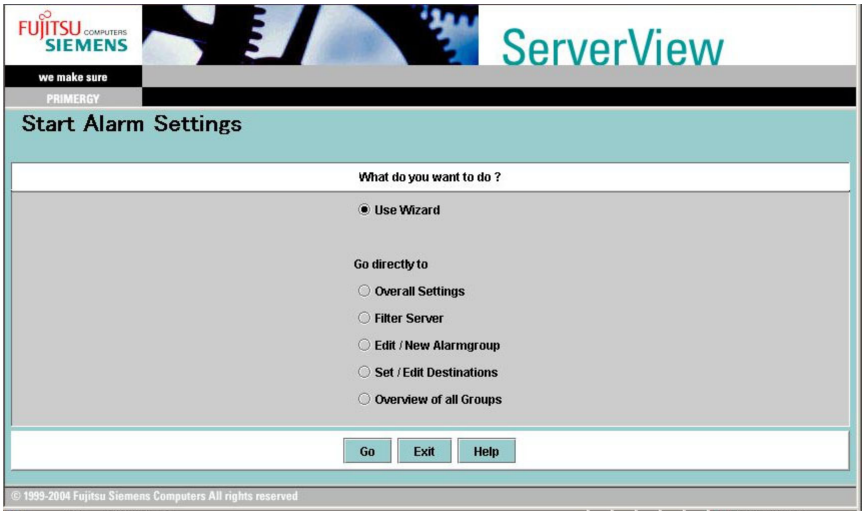
- For a blade server, Alarm Service does not handle each server blade composing the server. It can manage only the entire blade server.

Configure the following alarm process:

- Creating/editing alarm groups
  An alarm group involves the alarm for a server group. An alarm group is created anew and edited.
- Creating/editing actions
  Specifies alarm transfer.
- Displaying all settings
  Alarm settings are verified.

1 Click the [Alarm] menu → [Settings] or click [ALARM SETTINGS] (Alarm Settings) from the [Alarm Service] menu window appearing with the [Start] button → [Programs] → [Fujitsu AlarmService] → [Alarm Service].

The [Start Alarm Settings] window appears.



Start Alarm Settings

What do you want to do ?

● Use Wizard

Go directly to

○ Overall Settings

○ Filter Server

○ Edit / New Alarmgroup

○ Set / Edit Destinations

○ Overview of all Groups

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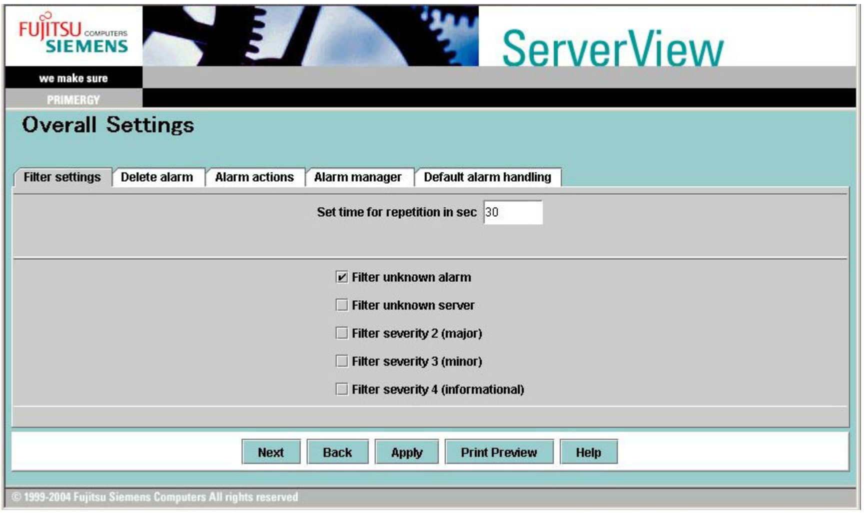
2 Select [Use Wizard] and click [Go].

POINT

- You can also select each item and then click [Go] to specify each item.

The [Overall Settings] window appears.



Overall Settings

Set time for repetition in sec 30

☑ Filter unknown alarm

□ Filter unknown server

□ Filter severity 2 (major)

□ Filter severity 3 (minor)

□ Filter severity 4 (informational)

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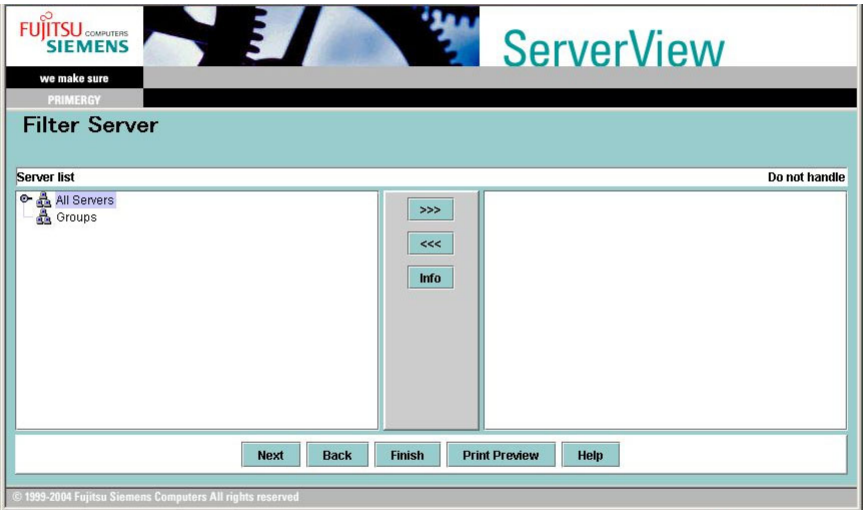
Define the overall settings for alarm process and click [Apply].

For details on each item, refer to help topics.

3 Click [Next].

The [Filter Server] window appears.



Filter Server

Server list

Do not handle

All Servers

Groups

FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
>>>
<<<
Info
Next
Back
Finish
Print Preview
Help
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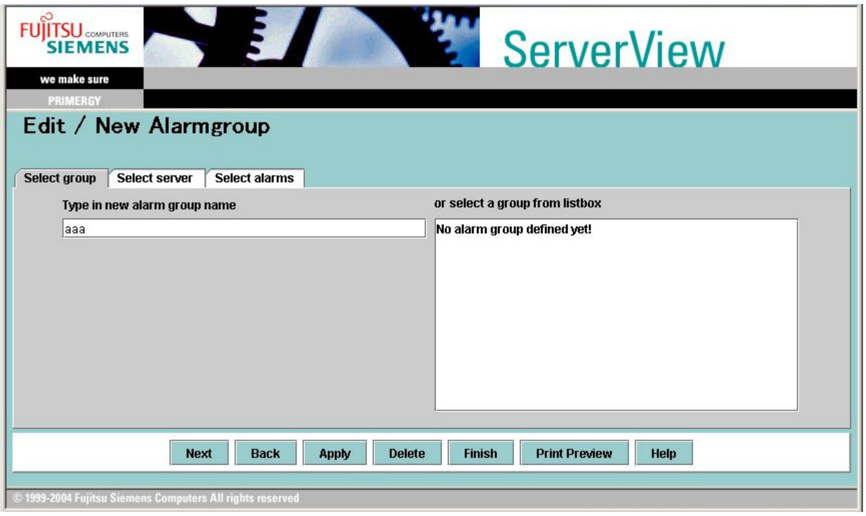
4 Specify the server in which alarms are filtered.

For details on each item, refer to help topics.

5 Click [Next].

The [Edit / New Alarmgroup] window appears.



Edit / New Alarmgroup

Type in new alarm group name: aaa

or select a group from listbox

No alarm group defined yet!

To create a new alarm group and edit existing alarm groups, specify each item and then click [Apply].

 If you click an item in [Alarm List] within [Select alarms] and click the [Information] button, you can verify the details.

 For details on each item, refer to help topics.

POINT

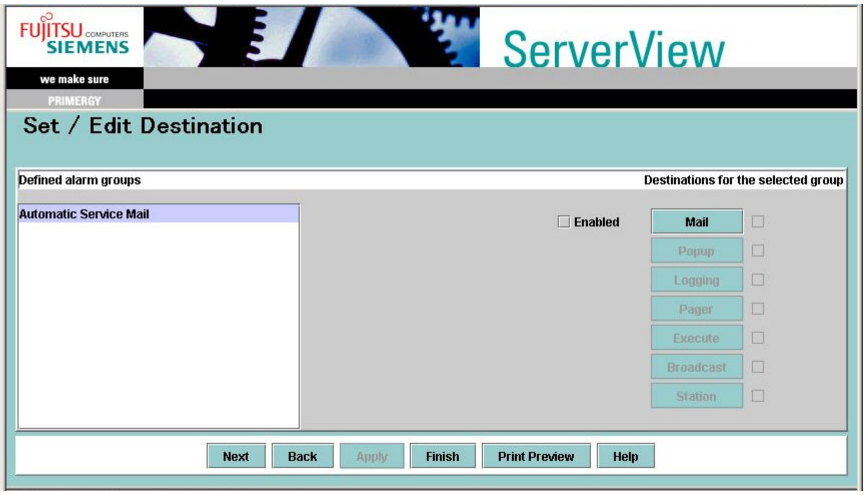
- To delete some alarm groups, perform the following procedure:
  1. Select an alarm group from [or select a group from listbox].
  2. Click [Delete].

IMPORTANT

- When you change the IP address or hostname for the monitored server in which an alarm group is assigned, perform the following procedure:
  1. Open the management console and check that the hostname and IP address in the server list are correct.
  2. After starting Alarm Service, delete the old hostname once, and then specify it again.

6 Click [Next].

The [Set / Edit Destination] window appears.



Set / Edit Destination

Defined alarm groups

Automatic Service Mail

Destinations for the selected group

□ Enabled

Specify alarm actions.

1. Select an alarm group.
2. Click the button for the item to specify.

   The corresponding settings window is displayed.
3. Specify the further details in each settings window.

   For details on each item, refer to help topics.
4. When you complete the specification, click [Apply].

POINT

Mail Settings

- The mail transfer with MAPI is not supported. Make sure to use SMTP.
  [Automatic Service Mail] is unavailable for alarm groups that have been created by default. Please create a new alarm group.
  For details on each item, refer to help topics.

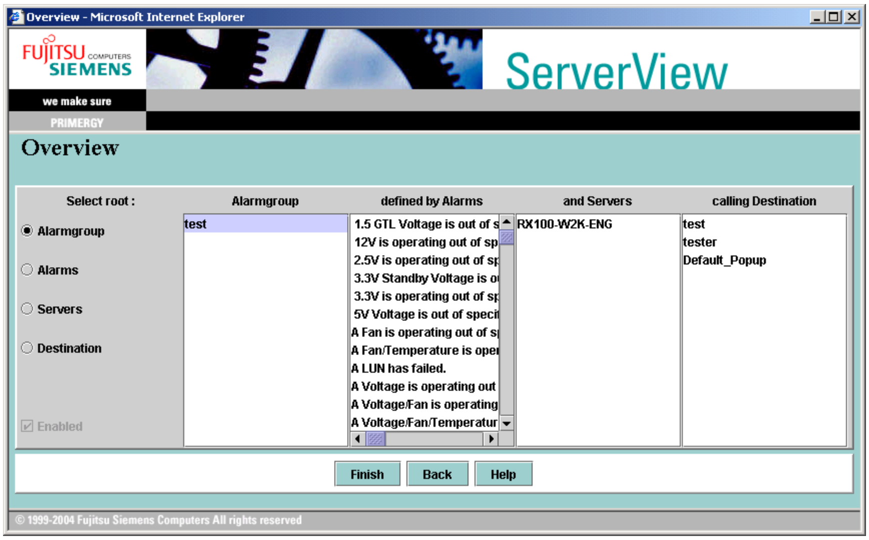
IMPORTANT

Pager Settings

- The Alarm function of the pager is not supported. Do not this function.

7 Click [Next].

The [Display All Settings] window appears.



Overview - Microsoft Internet Explorer
FUJITSU COMPUTERS SIEMENS
ServerView
we make sure
PRIMERGY

Overview

Select root :

● Alarmgroup

○ Alarms

○ Servers

○ Destination

☑ Enabled

Alarmgroup	defined by Alarms	and Servers	calling Destination
test	1.5 GTL Voltage is out of s	RX100-W2K-ENG	test
	12V is operating out of sp		tester
	2.5V is operating out of sp		Default_Popup
	3.3V Standby Voltage is o		
	3.3V is operating out of sp		
	5V Voltage is out of specif		
	A Fan is operating out of sp		
	A Fan/Temperature is oper		
	A LUN has failed.		
	A Voltage is operating out		
	A Voltage/Fan is operating		
	A Voltage/Fan/Temperatur		

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8 Verify the settings.

The displayed contents depend on the sorting order selected in [Select Root].
Certain [Enabled] radio buttons may be unavailable due to the item selected in the [Create/Edit Action Settings] window.

9 Click [Exit] to close.

The [Alarm Service] window is displayed. Close the Alarm Service window to exit Alarm Service.

■ How to Exclude Alarms

When a server starts up, RaidManager and EthernetCard may send SNMP traps as startup notification (Ex. RFC1157 Link Up). To block these traps, set the alarm monitor as follows:
However this blocking function must be specified for each server. When multiple servers are monitored, the alarm function must be used to assign the blocking settings for each server.

1 Click the [Alarm] menu → [Monitor] or click [ALARM MONITOR] ([Alarm Monitor]) from the [Alarm Service] menu window appearing with the [Start] button → [Programs] → [Fujitsu Alarm Service] → [Alarm Service].

2 Select an alarm type to suspend and click [Exclude].

3.2.2 Threshold Settings

Any value may be specified for some parameters. This is called threshold and an upper/lower limit, a relative threshold value, and polling intervals can be assigned.

It can be associated with the actions specified in the alarm manager. Using four thresholds of the upper limit to relative values/the lower limit to relative values/the upper limit to fixed values/the lower limit to fixed values, it is linked to the alarm management. Thresholds measurement and alarm interruptions are separately handled with the server agent.

POINT

- The Linux server does not support the threshold monitoring with threshold settings.
- Selections and settings for the observed variables are grouped into a table (threshold table) and assigned to each server using the threshold manager. In order to avoid suspending one variable that is read by two tables by mistake, a single server can open only one table.
- When you specify the same item as the basic threshold for servers (hardware) using the threshold manager, it leads to monitoring from two sources in conjunction with the basic threshold. For more information about thresholds, refer to "Appendix E Threshold List" (→pg.282).
- Specifying relative values enables you to detect the variation beyond the relative values from the current value.

IMPORTANT

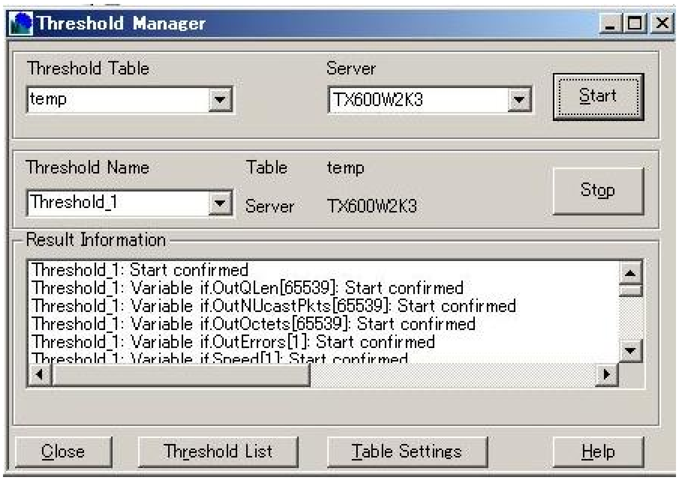
- Even if a threshold value is assigned with the threshold manager, ASR is not available. ASR is available only for the basic threshold assigned to servers (hardware). Additionally the threshold manager cannot change the basic threshold.

■ Specifying Thresholds

1 Select the server to specify a threshold.

2 Click the [Threshold] menu → [Threshold Manager].

The [Threshold Manager] window is displayed.



Threshold Table: temp
Server: TX600W2K3
Threshold Name: Threshold_1
Table: temp
Server: TX600W2K3

Result Information

```
Threshold_1: Start confirmed
Threshold_1: Variable if.OutQLen[65539]: Start confirmed
Threshold_1: Variable if.OutNUcastPkts[65539]: Start confirmed
Threshold_1: Variable if.OutOctets[65539]: Start confirmed
Threshold_1: Variable if.OutErrors[1]: Start confirmed
Threshold_1: Variable if.Speed[1]: Start confirmed
```

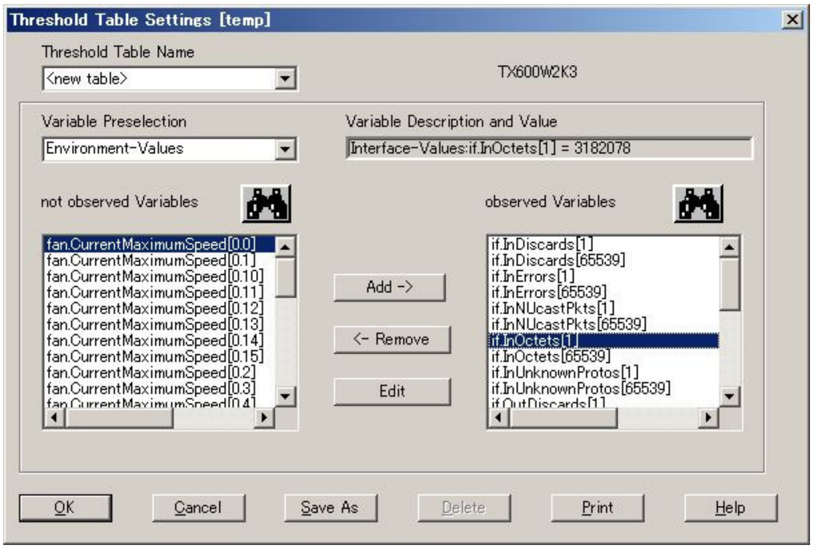
3 Select [Threshold Table] to specify for the server.

When you specify a new threshold table and change the value, click [Table Settings].

Table Settings

1. Click [Table Settings].

   The [Threshold Table Settings] window appears.



Threshold Table Settings [temp]

Threshold Table Name: <new table>

TX600W2K3

Variable Preselection: Environment-Values

Variable Description and Value: Interface-Values:if.InOctets[1] = 3182078

not observed Variables:

fan.CurrentMaximumSpeed[0.0]
fan.CurrentMaximumSpeed[0.1]
fan.CurrentMaximumSpeed[0.10]
fan.CurrentMaximumSpeed[0.11]
fan.CurrentMaximumSpeed[0.12]
fan.CurrentMaximumSpeed[0.13]
fan.CurrentMaximumSpeed[0.14]
fan.CurrentMaximumSpeed[0.15]
fan.CurrentMaximumSpeed[0.2]
fan.CurrentMaximumSpeed[0.3]
fan.CurrentMaximumSpeed[0.4]

observed Variables:

if.InDiscards[1]
if.InDiscards[65539]
if.InErrors[1]
if.InErrors[65539]
if.InNUcastPkts[1]
if.InNUcastPkts[65539]
if.InOctets[1]
if.InOctets[65539]
if.InUnknownProtos[1]
if.InUnknownProtos[65539]
if.OutDiscards[1]

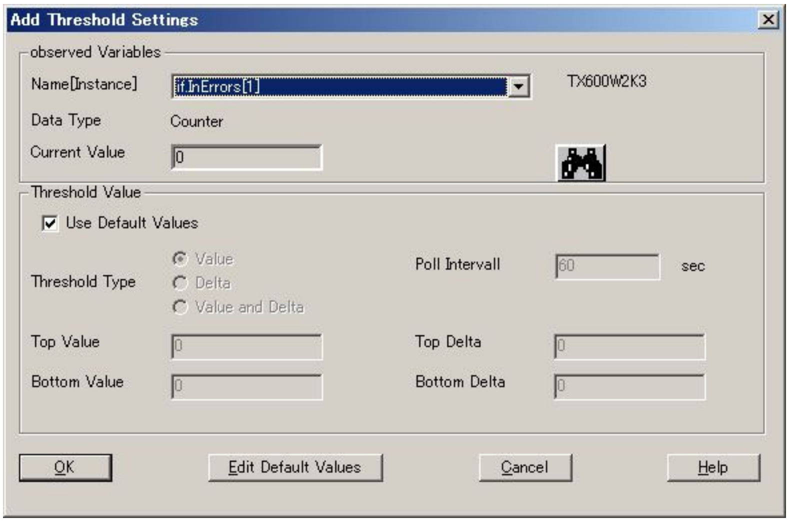
2. Select a category from [Variable Preselection].

   Items are listed in [not observed Variables].

3. Select an item from the [not observed Variables] list and then click [Add].

   The [Add Threshold Settings] window appears.

   For details on each item, refer to help topics.



Add Threshold Settings

observed Variables

Name[Instance]: if.InErrors[1]

TX600W2K3

Data Type: Counter

Current Value: 0

Threshold Value

☑ Use Default Values

Threshold Type: ● Value ○ Delta ○ Value and Delta

Poll Intervall: 60 sec

Top Value: 0

Top Delta: 0

Bottom Value: 0

Bottom Delta: 0

4. Specify the threshold and then click [OK].

   The assigned items are added to [observed Variables].

   Specify the other items in a similar way.

5. Once you complete all the items, click [OK].

   The [threshold table name settings] window appears.

6. Enter a threshold table name and click [OK].

   The [Threshold Manager] window appears again.

4 Click [Start].

The [Save as] window appears.

5 Enter a threshold name and click [OK].

The [Confirm User Name and Password] window appears.

6 Enter the log-on name and password with administrator privileges and click [OK].

Monitoring with the specified threshold table is started.

When you terminate monitoring with a threshold table, click [Terminate].

POINT

- The specifications in the threshold manager do not directly relate to each monitoring items that ServerView originally monitors.
- When there occurs deviation from the range specified in the threshold manager, the following threshold deviation traps are sent. However errors are not reported because the original values, which are used in monitoring items such as the assigned range of temperature sensor displayed on [Environment], do not change.
  - Deviation from the Value Specified with Fixed Values: Threshold exceededAThreshold underflow
  - Deviation from the Value Specified with Relative Values: DELTA-Threshold exceededADELTA-Threshold underflow

  When you want to start any actions for these traps, specify the action for the corresponding Trap in the [Create/Edit Actions] window within [Alarm Settings].

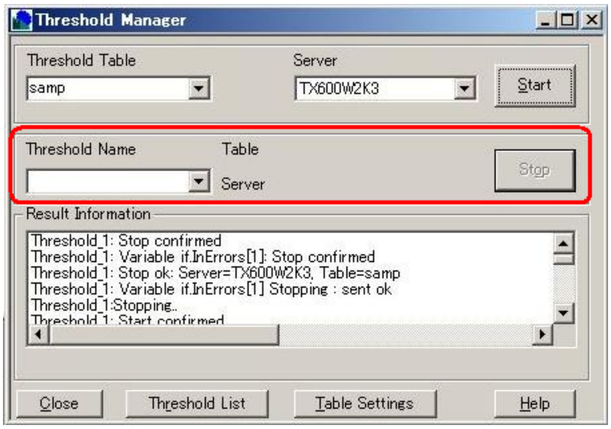
■ Stopping Threshold Monitoring

Stop threshold monitoring:

1 Click the [Threshold] menu → [Manager].

The [Threshold Manager] window is displayed.

2 Select a [Threshold Name] to stop and click [Stop].



Threshold Table: samp

Server: TX600W2K3

Result Information

```
Threshold_1: Stop confirmed
Threshold_1: Variable if.InErrors[1]: Stop confirmed
Threshold_1: Stop ok: Server=TX600W2K3, Table=samp
Threshold_1: Variable if.InErrors[1] Stopping : sent ok
Threshold_1:Stopping..
Threshold_1: Start confirmed
```

Threshold monitoring stops.

3 Click [Close] to exit.

■ Verifying Thresholds

To display the threshold list that is monitored with thresholds:

1 Click the [Threshold] menu → [List].

The [Threshold List] window is displayed.

2 Verify the information.

When you want to verify detailed thresholds, click [Threshold Manager]. When you change the settings in the running threshold table, stop it once to change the settings and then start it again.

3 Click [Close] to exit.

3.2.3 Report Settings

Creating reports helps monitor servers on a long-term basis.
The values selected in the report settings are regularly measured and recorded for a specific period.
Then the data is represented in a form of table or figure for evaluation.
This helps you to solve the problems at intervals caused by performance issues such as adding processors and disk capacity or installing a faster network adapter.

POINT

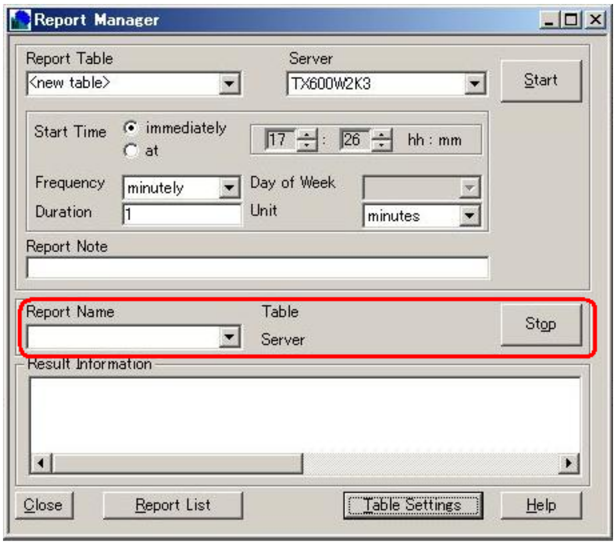
- The report manager settings do not directly relate to each monitoring items that ServerView monitors. Even if the report settings is not assigned, each of monitoring and notification is performed.
- To prevent one variable from being selected in two different tables, a single server can open only one table.

■ Creating Reports

1 Select the server for which reports are created from the server list.

2 Click the [Reports] menu → [Report Manager].

The [Report Manager] window is displayed.



Report Manager

Report Table: <new table>

Server: TX600W2K3

Start Time: ● immediately ○ at 17 : 26 hh : mm

Frequency: minutely

Day of Week:

Duration: 1

Unit: minutes

Report Note:

Report Name:

Table

Server

Result Information

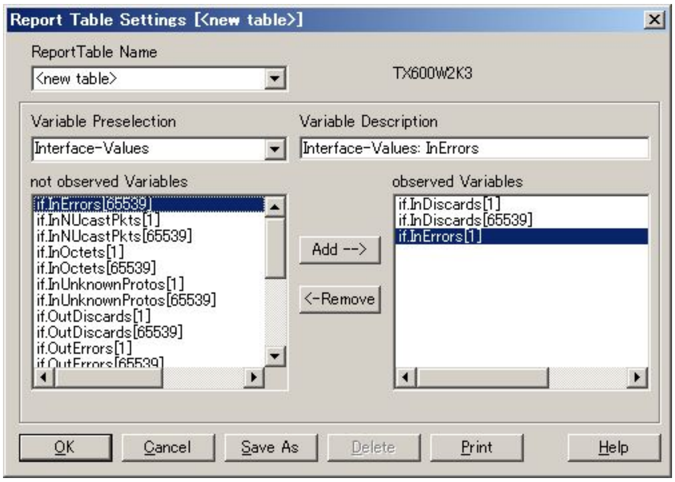
3 Select [Report Table] to specify for the server.

To specify a new report table and change the value, click [Table Settings].

Table Settings

1. Click [Table Settings].

   The [Report Table Settings] window appears.



Report Table Settings [<new table>]

ReportTable Name: <new table>

TX600W2K3

Variable Preselection: Interface-Values

Variable Description: Interface-Values: InErrors

not observed Variables:
if.InErrors[65539]
if.InNUcastPkts[1]
if.InNUcastPkts[65539]
if.InOctets[1]
if.InOctets[65539]
if.InUnknownProtos[1]
if.InUnknownProtos[65539]
if.OutDiscards[1]
if.OutDiscards[65539]
if.OutErrors[1]
if.OutErrors[65539]

observed Variables:
if.InDiscards[1]
if.InDiscards[65539]
if.InErrors[1]

2. Select [Variable Preselection].

3. Select the item that you want from the [not observed Variables] list and then click [Add].
   The item is added to [observed Variables].
   Specify the other items in a similar way. Up to 13 items can be specified in one report table.
4. Once you complete the items to report, click [OK].
   For a new table, the [Save as] window is displayed.
   Enter a report table name and click [OK].

4 Specify starting time, frequency, and a reporting period.

Specify the reporting period in [Period]. If [Indefinite] is selected, the system value is monitored continuously.

5 Enter a report note.

For the report note, descriptions such as the report's contents are entered.

6 Click [Start].

The [Report Name Entry] window is displayed.

7 Enter a report name and click [OK].

The report will be created at the starting time specified.
When the period is specified, recording stops when it expires.

8 Click [Close].

The report manager exits.

■ Stopping Reporting

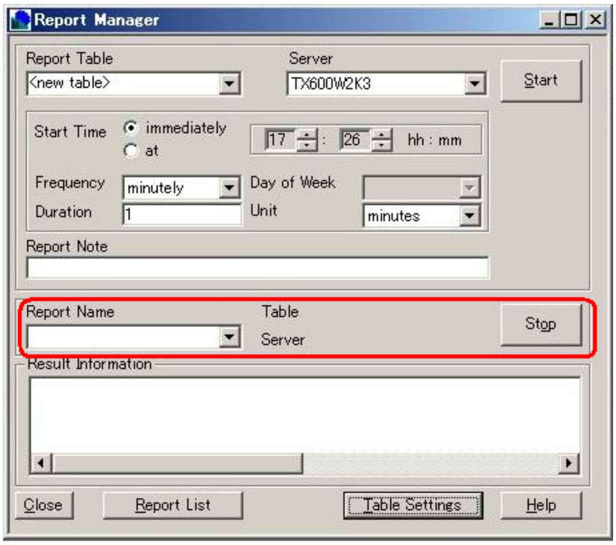
Stop reporting before a period limit expires.

1 Select the server for which reports are created from the server list.

2 Click the [Reports] menu → [Report Manager].

The [Report Manager] window appears.

3 Select the report name to stop and click [Stop].



Report Table: <new table>

Server: TX600W2K3

Start Time: ● immediately ○ at 17 : 26 hh : mm

Frequency: minutely

Day of Week:

Duration: 1

Unit: minutes

Report Note:

Report Name:

Table

Server

4 Click [Close].

The report manager exits.

3.2.4 Serious Error Handling (ASR)

The following items may be set to determine how serious problem are handled when they occur.

- Fan check timing and fan error policy
- Overheat error policy
- Post-power failure server response and reboot policy
- Boot monitoring policy and Watchdog timer policy

POINT

ASR Examples

- A server can be specified to automatically shut down when it overheats and automatically restart after a specific period of time (measures at abnormal temperature).
- It allows the settings for a system to automatically restart when it failed to start successfully, in case of a temporary failure in a SCSI cable or device (boot monitoring settings - measures at the occurrence of faults from system booting till ServerView Agent is activated), for example.

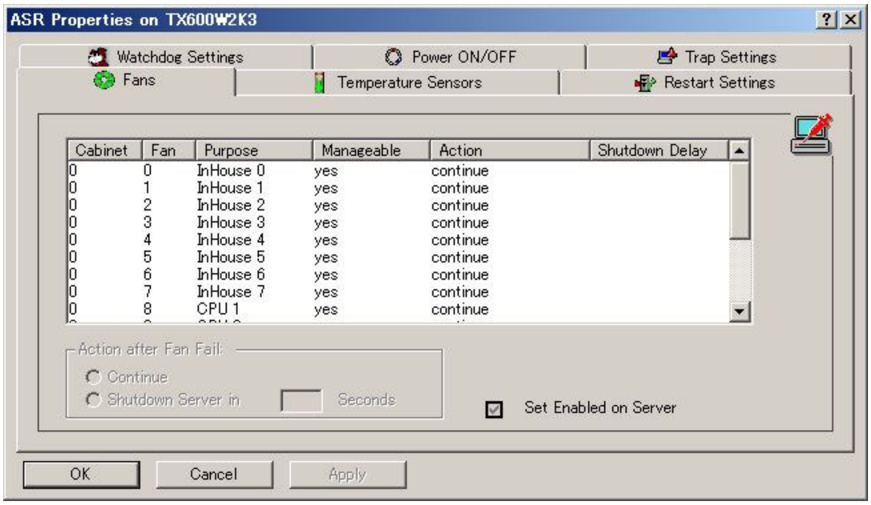
Setting Procedures

IMPORTANT

- All settings are not supported in all servers. When one or more fields are certainly set "N/A" for the selected server, these parameters are not supported.
- The settings in the [ASR Properties] window are written to BIOS of the server.
  The wrong settings may cause the system to fail in starting. Please make sure to specify them carefully.
- Please make sure that the server may be shut down for any unexpected reason when ServerView is uninstalled with the changed BIOS settings.
- "Abnormal state" in the [Fans] tab and [Temperature Sensors] tab means that there occurs deviation from the monitoring range of the basic threshold assigned to servers (hardware). This is not the monitoring range assigned in the threshold manager.

1 Right-click on the server to specify and click [ASR Properties] within the pop-up menu.

The [ASR Properties] window appears.



ASR Properties on TX600W2K3

Cabinet	Fan	Purpose	Manageable	Action	Shutdown Delay
0	0	InHouse 0	yes	continue	
0	1	InHouse 1	yes	continue	
0	2	InHouse 2	yes	continue	
0	3	InHouse 3	yes	continue	
0	4	InHouse 4	yes	continue	
0	5	InHouse 5	yes	continue	
0	6	InHouse 6	yes	continue	
0	7	InHouse 7	yes	continue	
0	8	CPU 1	yes	continue	

Action after Fan Fail:
○ Continue
○ Shutdown Server in ____ Seconds

☑ Set Enabled on Server

POINT

- The [Set Enabled on Server] checkbox exists in the lower right corner of the window. When the settings of the selected server can be modified, this checkbox is selected.
  When the checkbox turns gray, it indicates that some can be modified on the selected server and not on others.

2 Click the tab to specify and assign each item.

The tabs include the types below. For details about the items to specify in each tab, refer to the following sections respectively:

- [Fans] tab (→pg.94)
- [Temperature Sensors] tab (→pg.94)
- [Restart Settings] tab (→pg.95)
- [Watchdog Settings] tab (→pg.95)
- [Power ON/OFF] tab (→pg.95)
- [Trap Settings] tab (→pg.96)

3 Once each item is specified, click [OK] to close the properties.

POINT

- When ASR detects the serious state (CPU error, memory error, and OS hanging) in the server operation status or storage media, the system is restarted and the hardware component with a trouble turns unavailable in restarting.

[Fans] Tab

Specify the measures to perform at fan failure.

Specify [Actions after Fan Fail] for each fan.

table: [Fans] Tab

Item	Description
Continue	The server still continues to run at fan failure.
Shutdown server in ___ seconds	The server shuts down after a specific delay. Specify the delay in second.

IMPORTANT

- When any of the expansion disk devices are connected, [Shut down - Automatic Power off] may be selected in the fan information within the expansion disk that is shown. In this case, the system cannot automatically shut down.

[Temperature Sensors] Tab

Specifies the measures at abnormally high temperature.

Specify [Actions at Abnormally High Temperature] for each temperature sensor monitored.

table: [Temperature Sensors] Tab

Item	Description
Continue	The server still continues to run at abnormally high temperature.
Shut down the server now	The server shuts down immediately when temperature reaches the critical value.

IMPORTANT

- When any expansion disk devices are connected, [Shut down - Automatic Power off] may be selected in the temperature sensor information within the expansion disk that is shown. In this case, the system cannot automatically shut down.

[Restart Settings] Tab

Specify the measures at power failure and for restarting.

table: [Restart Settings] Tab

Item	Description
Actions after Power Failure	For handling after power failure, select one of the following items: • Restore the state before power failure • Restart the server • Do not restart the server
Waiting Time for Automatic Power on	Specify 1 to 30 minutes.
Maximum Number of Automatic Retry	Specify the number of retry when restarting fails. Specify 0 to 7. If you click [Default], the value specified in [Default Number of Retry to Restart] is assigned.
Actions at Excess of Retry Number to Restart	[Suspend restarting and turn power off] is selected for handling at the time when the maximum retry number is exceeded.

IMPORTANT

- Do not select the [Start the diagnosis system] item in [Actions at Excess of Retry Number to Restart].

[Watchdog Settings] Tab

Specify Watchdog-timer monitoring and boot monitoring.

table: [Watchdog Settings] Tab

Item	Description
Watchdog-timer Monitoring	Monitors the functions of ServerView Agent. When enabling the monitoring with Watchdog timer, select the [Software] item from [Type] list, check [enable] and assign the waiting time till timeout to 1 to 120 minutes. In addition, select the measures at the time when the waiting time exceeds from the following items: • Restart • Continue to run • Power off/on
Boot Monitoring	Monitors the interval from system booting till ServerView Agent is activated. For boot monitoring, select the [Boot] item from [Type] list, check [enable] and assign 1 to 120 minutes for the waiting time to monitoring. In addition, select the measures at the time when the waiting time exceeds from the following items: • Restart • Continue to run • Power off/on

[Power ON/OFF] Tab

This allows you to specify the server starting time/exiting time for each day.

For example, you can shut down a server on weekends and restart it on Monday. However it may not be specified depending on the server machine types.

IMPORTANT

- The settings are written to BIOS of the scheduled server. Make sure to disable scheduling before ServerView is uninstalled from the server.
  When ServerView is uninstalled with the scheduling enabled, the server may be shut down at an unexpected time.

■ [Trap Settings] Tab

This allows traps to be set to enabled/disabled for the specified server. For the enabled trap, when a server detects some errors in the system and any trap is defined for this error, the trap is sent from the server to the management console. The disabled trap is not sent.

IMPORTANT

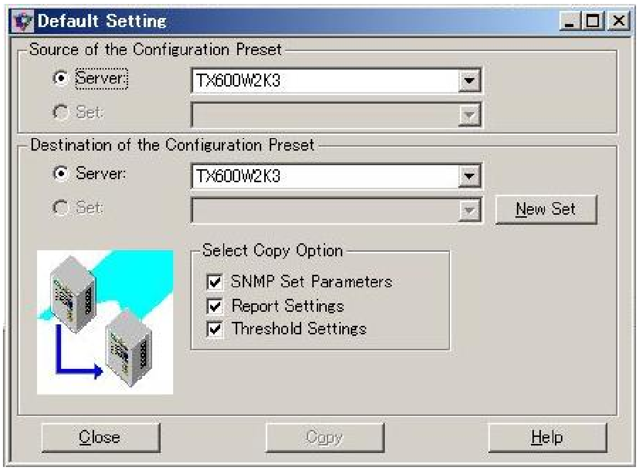
- Traps are listed in this tab only when the monitored server runs Windows.

3.2.5 Copying Settings to the Other Servers

The settings assigned with ServerView (thresholds and reports) can be copied to the other servers to specify them. This helps to specify the same value in multiple servers.

1 After you complete the server settings, click the [Settings] menu → [Default Settings].

The [Default Setting] window appears.


Default Setting

Source of the Configuration Preset
● Server: TX600W2K3
○ Set:

Destination of the Configuration Preset
● Server: TX600W2K3
○ Set:

Select Copy Option
☑ SNMP Set Parameters
☑ Report Settings
☑ Threshold Settings

2 Select the source server in [Source of the Configuration Preset].

3 Specify the server to which you copy the settings in [Destination of the Configuration Preset] and select the items to copy in [Select Copy Option].

4 Click [Copy].

The same settings as the source server are applied in the destination server.

■ Write Settings to a File or Read Settings from a File

You can also write the settings to a file or read them from a file.
In the [Default Setting] window, perform the following procedure:

- Select [Set] in [Source of the Configuration Preset] to specify the file from which the settings are read.
- Select [Set] in [Destination of the Configuration Preset] to specify the file to which the settings are written.

3.2.6 Save/Restore Settings

Configuration Tools enables you to modify, save, and restore the settings of ServerView Agent. It also helps you to modify, save, and restore the board settings when the remote service board is installed.

POINT

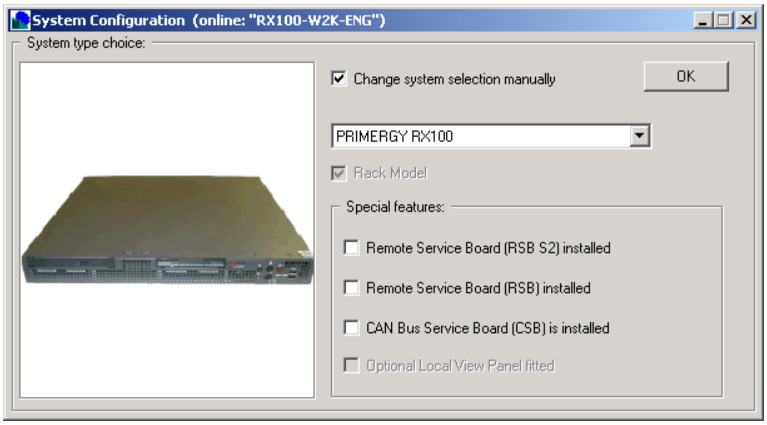
- Saving/Restoring is not allowed on the environment in which the versions of ServerView Agent are different.

■ Starting Configuration Tools

When ServerView Agents are installed in the Windows server, the remote service board can be configured. To change the configuration, perform the following procedure:

1 Click [Start] → [Programs] → [Fujitsu ServerView Agents] → [Configuration Tools] → [System Configuration].

The [System Configuration] window appears.



System Configuration (online: "RX100-W2K-ENG")

System type choice:

☑ Change system selection manually

PRIMERGY RX100

☑ Rack Model

Special features:

☐ Remote Service Board (RSB S2) installed

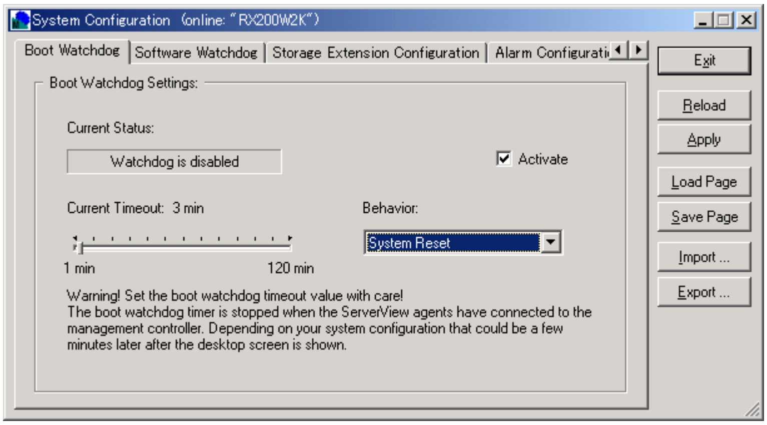
☐ Remote Service Board (RSB) installed

☐ CAN Bus Service Board (CSB) is installed

☐ Optional Local View Panel fitted

2 Select the [Change system selection manually] checkbox and click [OK].

A window appears for specifying items.



Boot Watchdog Settings:

Current Status:

Watchdog is disabled

☑ Activate

Current Timeout: 3 min

Behavior:

System Reset

1 min 120 min

Warning! Set the boot watchdog timeout value with care!
The boot watchdog timer is stopped when the ServerView agents have connected to the management controller. Depending on your system configuration that could be a few minutes later after the desktop screen is shown.

This window includes the following configuration windows (tab windows).

table: System Configuration Settings Window

Tab Window	Contents
Boot Watchdog	The settings are associated with Boot Watchdog.
Software Watchdog	The settings are associated with Software Watchdog.
Storage Extension Configuration	The settings are associated with expansion external devices. They are not required to change.
Alarm Configuration (Management Controller/ RSB)	The settings are associated with alarm notification. This is available only for the remote service board.
IP Configuration (Management Controller/RSB)	The settings are associated with IP. This is available only for the remote service board/ controller.
Network Service Configuration (Management Controller/RSB)	The settings are associated with HTTP/Telnet. This is available only for the remote service board.
Remote User Configuration (Management Controller/RSB)	The settings are associated with user accounts. This is available only for the remote service board.
SNMP Configuration (Management Controller/RSB)	The settings are associated with SNMP. This is available only for the remote service board.
Serial Interface Configuration (Management Controller/RSB)	The settings are associated with serial interfaces. This is available only for the remote service board.
Disk Redirection	The settings are associated with disk redirection. This is available only for the remote service board. (This function is not supported.)
System Power On/Off Settings	The settings are associated with the power schedule. This is available only for the remote service board.

table: System Configuration Settings Window

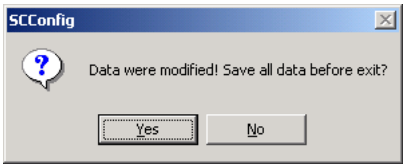
Tab Window	Contents
UPS Configuration	Unsupported. The settings are associated with UPS.
RSB S2 IP Configuration	The settings are associated with IP. This is available only for the remote service board (PG-RSB102/PG-RSB103).
RSB S2 Network Services	The settings are associated with HTTP. This is available only for the remote service board (PG-RSB102/PG-RSB103).

POINT

- Select the [Remote Service Board (RSB) installed] checkbox when the remote service board is installed.
- In addition, select the [Remote Service Board (RSB S2) installed] checkbox when the remote service board (PG-RSB102/PG-RSB103) is installed.

3 After completing the required procedures, click [Exit].

When you change the settings without clicking [Apply] or read the settings with [Import], the message appears to confirm whether to save the settings.



SCConfig

Data were modified! Save all data before exit?

Click [Yes] for saving it or [No] otherwise.

Configuration Tools exits.

■ Change Settings

Change the settings.

1 Start Configuration Tools.

2 Click the tab of items to specify and specify each item.

When you want to start over the settings, all the items are restored to the original settings if you click [Reload].

3 Click [Apply].

The settings for all items are reflected.

POINT

- If you click [Save Page], the settings are reflected only for the items for the tab that is currently open.

4 Click [Exit].

Configuration Tools exits.

■ Save Settings

Save the settings as a file.

1 Start Configuration Tools.

2 Click [Export].

The [Save as] window is displayed.

3 Specify a file name and a location to which the file is saved, and click [Save].

The file is saved.

4 Click [Exit].

Configuration Tools exits.

■ Restoring Settings

Read the file in which the settings were saved and specify each item.

1 Start Configuration Tools.

2 Click [Import].

The [Open File] window is displayed.

3 Select the setting file to read and click [Open].

The information of the setting file to read is assigned to items.

4 Click [Exit].

The message appears to confirm whether to save the settings.

5 Click [Yes].

Click [No] when you suspend restoration of the setting.
Configuration Tools exits.

3.3 Verification of Server Status

Verify server status on the server management mode.

3.3.1 Verifying the Current Server Status

■ Displaying the Server Status

When the management console is started, the status of each server is displayed with icon in the server list window within the server management window. The following table illustrates what these icons indicate.

table: Meaning of Icons

Icon	Meaning
✓	All components operate properly.
⬆	Errors occur in one or more components.
↘	The status for one or more components deteriorates.
↘✓	The server does not respond. It is uncontrollable.
→	The server status is under examination.
?	Server is inaccessible. Check if the server is connected to a network or if the server is properly specified in ServerView.
↘✓	RSB responded through the secondary channel because the server did not respond. It is possible to verify the server status on the RSB mode.
i	The DiskInfo tool can start. This is not supported.
🌐	The advanced server manager can be activated.
LDSM	Intel LANDesk® Server Manager (LDSM) can be activated.
🔔	ServerView received an alarm from the server.
↕	Threshold Measurement is starting.
📚	Archive data is created.
▥	The status of blade servers (the status of all blades) is normal.

table: Meaning of Icons

Icon	Meaning
→	Status of blade servers is under investigation.
↘	The status of blade servers (the status of at least one blade) deteriorates.
	An error occurs in the status of blade servers (the status of at least one blade).
	The blade server does not respond. It is uncontrollable.
?	The blade server is inaccessible.
	The status of clusters is normal.
→	Cluster status is in under investigation.
	Any errors occur in one or more clusters.
✓	All components in clusters operate properly.
	The cluster does not respond. It is uncontrollable.
?	The cluster is inaccessible. Check if the cluster is connected to a network or if the cluster is properly specified in ServerView.
↘	The status for one or more components in the cluster deteriorates.

■ Verification of Server Connection

Test connection to check that servers can be properly used in ServerView. This automatically starts the monitoring function and displays the status of the entire system and its sub systems.

IMPORTANT

- When setting up the server list, it is necessary to check that the computer name specified in the server list is available. The computer name is a name assigned to the server in OS installation. Multiple computer names cannot be assigned to one IP address simultaneously.

1 Check that the server name and IP address are correctly displayed.

2 Click the [File] menu → [Test Connection].

Check that the server responds within the specified timeout period.

The following four tests are executed:

- Network connectivity (PING)
  Checks that servers are connected to the network.
- SNMP connectivity (Check SNMP)
  Check that the agent is installed in the server.
- Address type
  Check primary/secondary discrimination using an address type in the server/RSB.
- Test Trap (Send Test Trap)
  Checks that any traps from the server can be received.

3 Execute Step 2 for each server.

■ Redetect Servers/Redetect All Servers

To check the status of the current server, execute [Redetect Servers]([Redetect All Servers] for all the servers).

● Redetect Servers

1 Select the server that you want to verify and click the [File] menu → [Redetect Servers].

Status checking starts to check if connection status and current status for each server are normal.

● Redetect All Servers

1 Click the [View] menu → [Redetect All Servers].

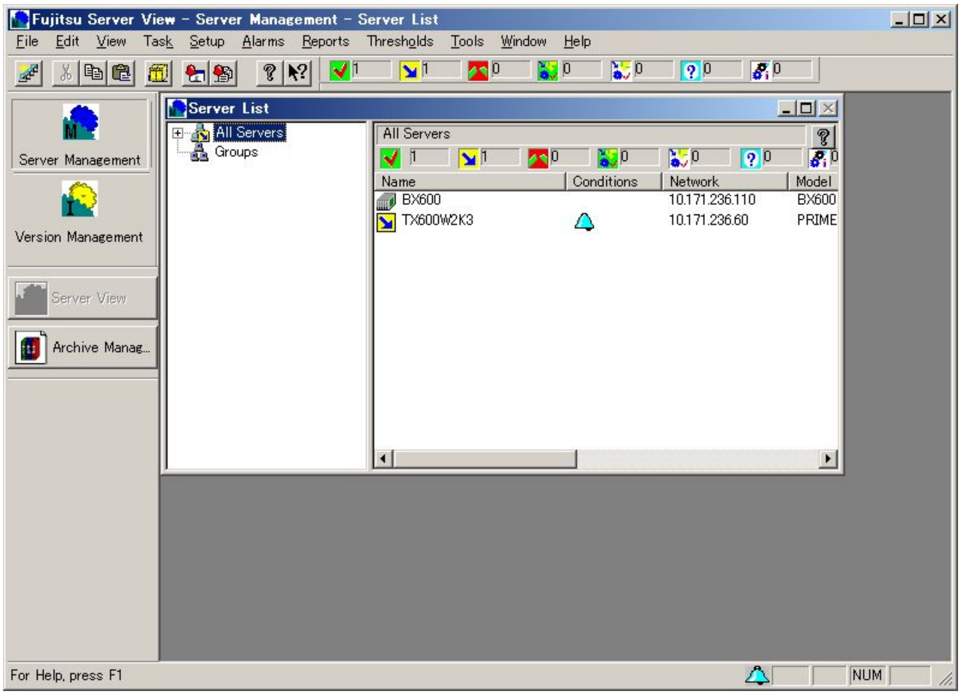
Status checking starts for all the defined servers.

3.3.2 Accepting/Reviewing/Editing Alarms

Receive the unaccepted alarms that ServerView has sent. You can list the accepted alarm to review the information and delete the unnecessary alarm information.

■ Receiving Alarms

When any alarm is sent from ServerView, an alarm reception icon is displayed at [Conditions] in the server list window within the server management window.



All Servers

Name	Conditions	Network	Model
BX600		10.171.236.110	BX600
TX600W2K3	🔔	10.171.236.60	PRIME

When multiple alarms exist, the most serious alarm is displayed in the right end of the status bar. Accept the alarm as follows:

1. Select the server for which alarms are received.

2. Click the [Alarms] menu → [Receive].

   An alarm mark disappears.

POINT

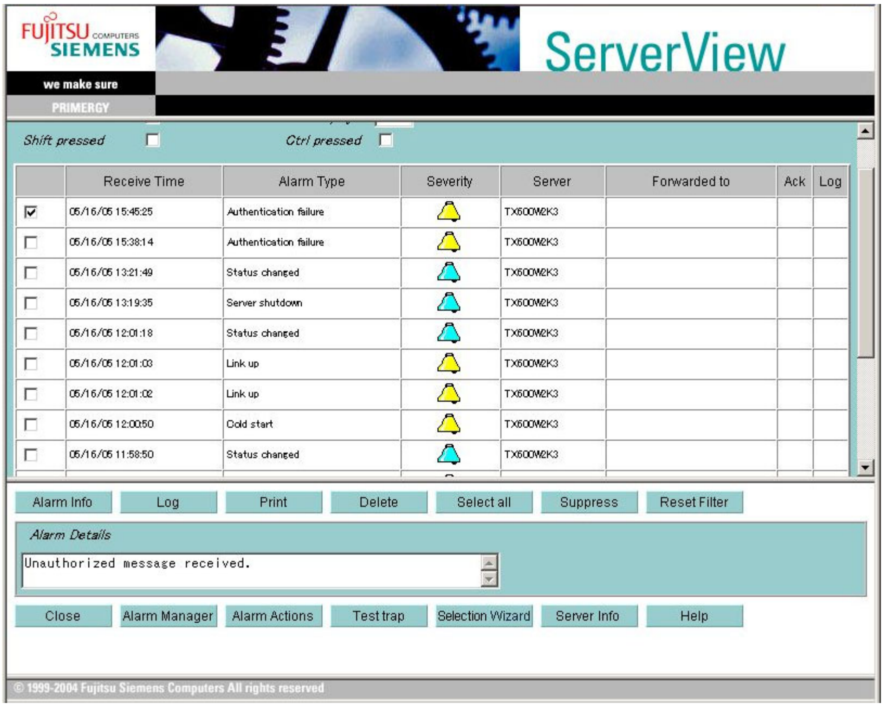
- To receive the alarms for all servers, select [Receive All] from the [Alarms] menu.

■ Displaying All the Received Alarms - [Alarm Monitor]

The alarm monitor displays all the received alarms.

1 Click the [Alarm] menu → [Monitor] or click [ALARM MONITOR] ([Alarm Monitor]) from the [Alarm Service] menu window appearing with the [Start] button → [Programs] → [Fujitsu Alarm Service] → [Alarm Service].

Alarm Service starts and the [Alarm Monitor] window appears.



Shift pressed □ *Ctrl pressed* □

	Receive Time	Alarm Type	Severity	Server	Forwarded to	Ack	Log
☑	05/16/05 15:45:25	Authentication failure	🟨	TX600W2K3			
□	05/16/05 15:38:14	Authentication failure	🟨	TX600W2K3			
□	05/16/05 13:21:49	Status changed	🟦	TX600W2K3			
□	05/16/05 13:19:35	Server shutdown	🟦	TX600W2K3			
□	05/16/05 12:01:18	Status changed	🟦	TX600W2K3			
□	05/16/05 12:01:03	Link up	🟨	TX600W2K3			
□	05/16/05 12:01:02	Link up	🟨	TX600W2K3			
□	05/16/05 12:00:50	Cold start	🟨	TX600W2K3			
□	05/16/05 11:58:50	Status changed	🟦	TX600W2K3			

Alarm Details

Unauthorized message received.

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table: Description of the Alarm Monitor Window

Items	Description
Count of alarms listed	The number of alarms listed in the alarm monitor window is displayed. You can click [Settings] to specify the number of alarms listed in each page. "30" is set by default and the minimum value is "10". If "all" is selected, all the received alarms are displayed.
available	The number of alarms that Alarm Service received is displayed.
Automatic refresh	When the check is marked, the alarm monitor window is automatically updated if a new alarm is received. Otherwise the window is not automatically updated. Only the [Number of Reception] value is updated.
Shift pressed	Select this checkbox when you want to select a range of alarms. Perform the following procedure: Select a starting point of the range → [Range Selection] → an end point of the range.
Ctrl pressed	If this is checked, multiple alarms can be selected.
Receive Time	The time when the alarm is received is displayed.
Alarm Type	The type of alarm is displayed.

table: Description of the Alarm Monitor Window

Items	Description
Severity	Priority of the alarm is displayed in the alarm reception icons below. 🔔(Red): Danger 🔔(Pink): High level 🔔(Yellow):Low level 🔔(Blue): Information 🔔(White): Unknown
Server	A server name is displayed.
Forwarded to	The action at the time when an alarm is received is displayed. Actions are specified in the [Create/Edit Action] window within [Alarm Settings].
Ack	When an alarm is accepted, the icon is displayed.
Log	When any alarm is written into an alarm log, the icon is displayed.
Alarm Details	The detailed message for the selected alarm is displayed.

The following information is displayed: For details, refer to help topics.

2 The targeted alarm can be selected to perform the following operation.

table: Alarm Operations

Function Button	Description
Alarm Info	Displays the details about alarms.
Log	Writes the selected alarm into an alarm log list.
Print	Prints the selected alarm.
Delete	Deletes the selected alarm from the alarm list.
Select All	Selects all the alarms.
Suppress	Click [Exclude] to exclude the selected alarm from the selected server. The alarm selected for exclusion is deleted from the list and arriving alarms are not added to the list. This is useful when a system is filled with alarms due to abnormal operation of certain servers.
Reset Filter	The excluded alarms are listed.
Alarm manager	Starts the alarm manager.
Alarm Actions	The "Shared Settings" window appears. The alarm actions can be edited.
Test Trap	Tests transmission of traps.

For details, refer to help topics.

3 Click [Close] to exit.

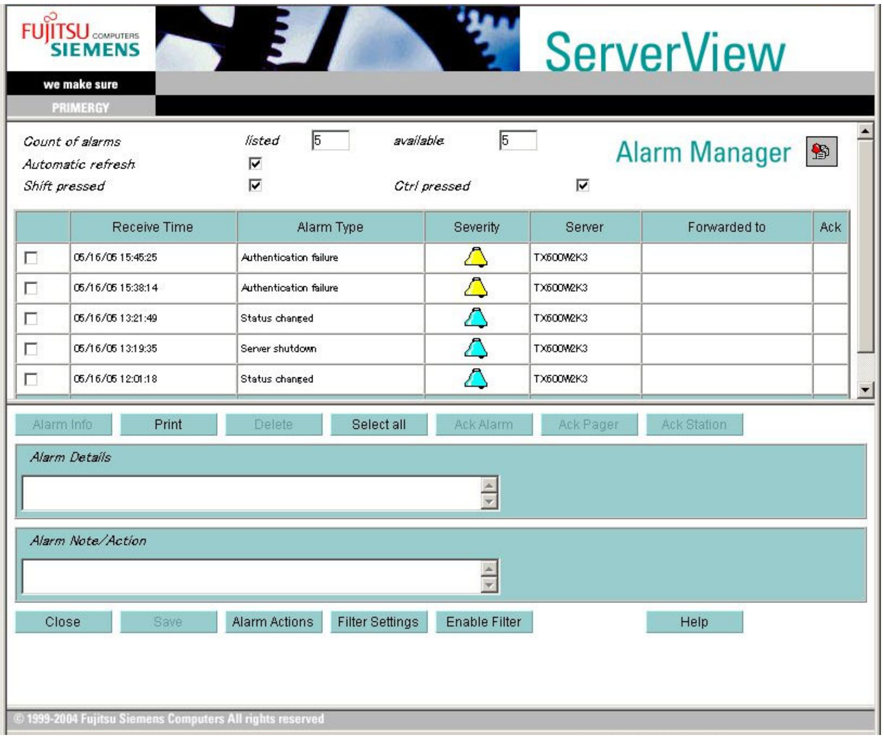
4 Close the alarm service window to exit Alarm Service.

■ Editing/Managing Alarms - [Alarm Manager]

The alarm manager allows you to edit and manage all the alarms in the alarm log list.

1 Click the [Alarm] menu → [Manager] or click [ALARM MANAGER] ([Alarm Manager]) from the [Alarm Service] menu window appearing with the [Start] button → [Programs] → [Fujitsu Alarm Service] → [Alarm Service].

Alarm Service starts and the [Alarm Manager] window appears.



Count of alarms listed 5 available 5

Automatic refresh ☑

Shift pressed ☑ Ctrl pressed ☑

	Receive Time	Alarm Type	Severity	Server	Forwarded to	Ack
□	05/16/05 15:45:25	Authentication failure	🔔	TX600W2K3		
□	05/16/05 15:38:14	Authentication failure	🔔	TX600W2K3		
□	05/16/05 13:21:49	Status changed	🔔	TX600W2K3		
□	05/16/05 13:19:35	Server shutdown	🔔	TX600W2K3		
□	05/16/05 12:01:18	Status changed	🔔	TX600W2K3		

table: Description of Alarm Manager Window

Items	Description
Count of alarms listed	The number of alarms listed in the alarm manager window is displayed.
available	The number of alarms that are recorded in the alarm log database is displayed.
Automatic refresh	When the check is marked, the alarm monitor window is automatically updated if a new alarm is received. Otherwise the window is not automatically updated. Only the [Number of Reception] value is updated.
Shift pressed	Select this checkbox when you want to select a range of alarms. Perform the following procedure: Select a starting point of the range → [Range Selection] → an end point of the range.
Ctrl pressed	If this is checked, multiple alarms can be selected.
Receive Time	The time when the alarm is received is displayed.
Alarm Type	The type of alarm is displayed.
Severity	Priority of the alarm is displayed in the alarm reception icons below. 🔔(Red): Danger 🔔(Pink): High level 🔔(Yellow):Low level 🔔(Blue): Informatior 🔔(White): Unknown
Server	A server name is displayed.
Forwarded to	The action at the time when an alarm is received is displayed. Actions are specified in the [Create/Edit Action] window within [Alarm Settings].
Ack	When an alarm is accepted, the icon is displayed.
Alarm Details	The detailed message for the selected alarm is displayed.
Alarm Note/Action	It is possible to enter an explanatory note such as details of the selected alarm.

The following information is displayed: For details, refer to help topics.

2 The targeted alarm can be selected to perform the following operation.

table: Alarm Operations

Function Button	Description
Alarm Info	Displays the details about alarms.
Print	Prints the selected alarm.
Delete	Deletes all the accepted alarm to be selected.
Select all	Selects all the alarms.
Ack Alarm	Accepts the selected alarm. When it is accepted, the acceptance icon is displayed in the alarm list.
Ack Station	Accepts the selected action for station transfer. When it is accepted, the acceptance icon is displayed in the alarm list.
Save	Saves the information entered in [Alarm Note/Action].
Alarm Actions	The "Shared Settings" window appears. The alarm settings can be edited.
Filter Settings	The [Alarm Manager Filter] window appears. It is possible to verify the alarm filter settings and define some new filter settings. Filter Settings are as follows: • Select server Filters the alarms of the selected server. • Select Type Filters alarms with a severity level. • Alarm Filters alarms depending on whether it is accepted or not. • Time Filters alarms depending on whether the alarm occurred before or after the specified time. • Unaccepted Management Station Filters the unaccepted alarms of which traps were sent to the other management station.
Enable Filter	Enables or Disables the alarm filter settings.

For details, refer to help topics.

3 Click [Close] to exit.

4 Close the alarm service window to exit Alarm Service.

3.3.3 Monitoring Hardware

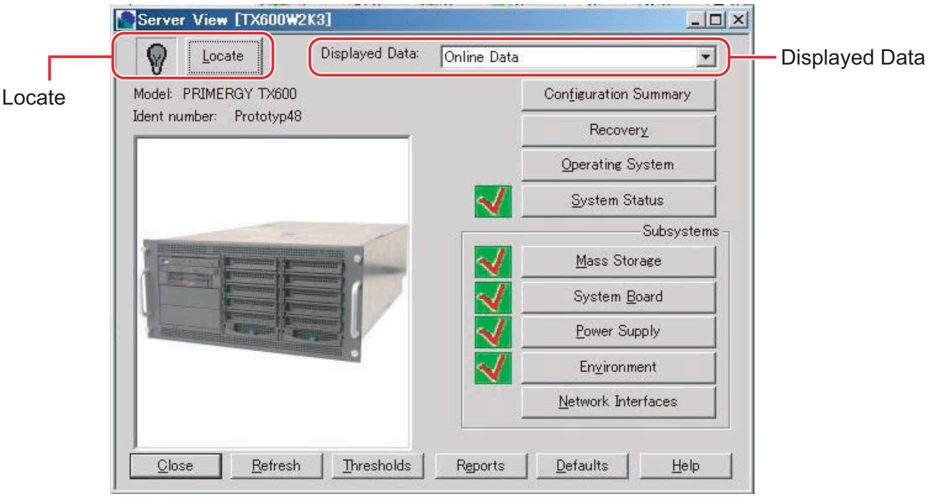
1 Select the server to monitor.

POINT

- For blade servers, refer to "3.3.4 Verifying the Status of the Blade Servers" (→pg.127).

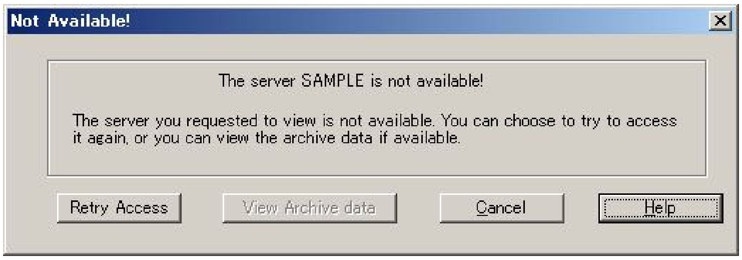
2 Click [ServerView].

The [ServerView [Server Name]] window appears and the details of the selected server are displayed.



POINT

- The ServerView window can be displayed using one of the following methods.
  •Double-click the server.
  •Select the server and click the [File] menu → [Open].
  •Right-click on the server and click [Open].
- The following items are only available for the RSB mode.
  However they cannot be seen when the RSB mode is active and the remote service board (PG-RSB102/PG-RSB103) is installed.
  •Recovery
  •System Board
  •Power Supply
  •Environment
- When the RSB mode is active and the remote service board (PG-RSB102/PG-RSB103) is installed, the following dialog appears if you select the server to monitor and click [ServerView]. For a Web interface, refer to "5.3.1 Starting the Web Interface" (→pg.205).


Not Available!

The server SAMPLE is not available!

The server you requested to view is not available. You can choose to try to access it again, or you can view the archive data if available.

Start the Web interface for the remote service board by clicking [Retry Access].

Locate

This enables the system identification LED display to switch. It is available only when a server supports the system identification LED display. The current status of system identification LED is displayed in icons.
There are three icons below.

💡:LED ON 💡: LED OFF

💡:Flashing LED (Indicates a system error)

Displayed Data

Either of the current data (Online Data) or the archive data (Archive Data - Creation date and time) can be specified. When a server is not accessible, [Archive Data] can be selected to display the created archive data. This allows you to verify the source of any trouble if necessary.

3 Verify the server status. Click the button of the item that you want to verify.

table: Status Verification of Servers

Items	Description
Configuration Summary	Displays general information for the selected server. The following information is displayed: • System Info (system information such as the installed OS) • MassStorage (information for hard disks, logical drives, file systems) • Network Interfaces (information for the connected network cards) • Expansion boards (information for expansion boards) • Recovery (contents of the error buffer) • Others (the power supply and up/down time of servers) • Overall Information (all information)
Recovery	Manages continuous monitoring and power supply for servers. This allows you to specify measures and restart/turn off servers when anomaly occurs. For more details, refer to "■ Recovery" (→pg.113).
Operating System	Displays data on the OS that is installed in the server. Data on the currently running process as well as its OS name, version, language, and system running hours are displayed.
System Status	Displays the system information in the status agent. Systems are divided into sub systems that consist of multiple components. The tree view displays an outline of status for all existing subsystems and components.
Mass Storage	Displays the details about hard disks and controllers. For more details, refer to "■ Verifying Mass Storage Status" (→pg.115).
System Board	Displays data for processors, memory modules, bus systems, and controllers (Ex. Board-ID of baseboards and a BIOS version of OS). For more details, refer to "■ Verifying the System Board Status" (→pg.122).
Power Supply	Displays the power supply settings and status for servers. For more details, refer to "■ Verifying the Power Supply Status" (→pg.124).

table: Status Verification of Servers

Items	Description
Environment	Displays temperature and status of fans for servers and memory expansion units connected to the server. Also displays whether or not some doors and the server's case are open. For more details, refer to "■ Verifying the Environment Status" (→pg.126).
Network Interfaces	Data on networks can be obtained. First, click the list entry required to obtain information continuously. • Information that can be obtained for existing network boards: e.g. Adaptor Model/Type/Physical Address/IPX Network/Speed/IP Address/IP Subnet Mask/Bus Type & Number/Slot Number/Function/IRQ/DMA Channel/I/O Address Range/Memory Address Range
Refresh	Refreshes information that is displayed in the window.
Thresholds	The threshold manager starts. For more details, refer to "3.2.2 Threshold Settings" (→pg.86).
Reports	The report manager starts. For more details, refer to "3.2.3 Report Settings" (→pg.89).
Defaults	The default settings start. For more details, refer to "3.2.5 Copying Settings to the Other Servers" (→pg.96).
Help	Help topics for each item appears.

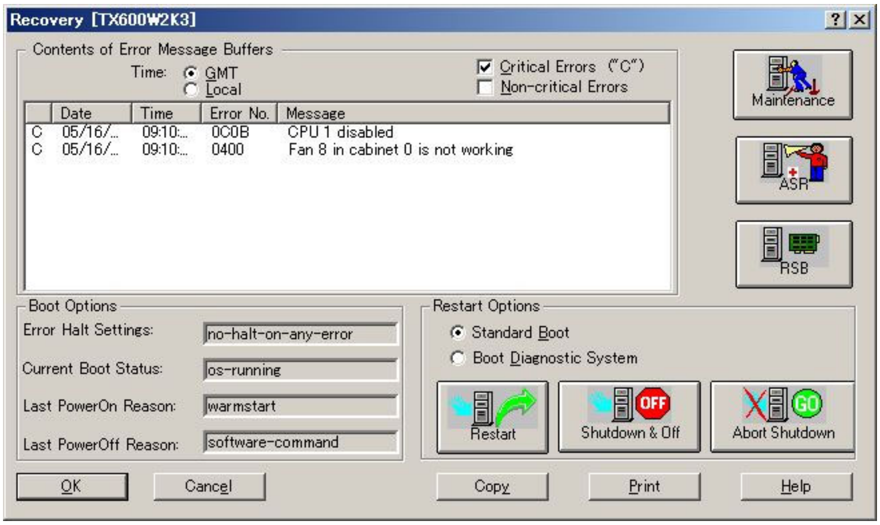
4 After completing verification for each item, click [Close].

The ServerView window closes and the server list window appears again.

■ Recovery

When you click [Recovery], the [Recovery] window appears.

Specify information about continuous monitoring and a response to alarms for servers.



Recovery [TX600W2K3]

Contents of Error Message Buffers

Time: ● GMT ○ Local

☑ Critical Errors ("C")

□ Non-critical Errors

	Date	Time	Error No.	Message
C	05/16/...	09:10:...	0C0B	CPU 1 disabled
C	05/16/...	09:10:...	0400	Fan 8 in cabinet 0 is not working

Boot Options

Error Halt Settings: no-halt-on-any-error

Current Boot Status: os-running

Last PowerOn Reason: warmstart

Last PowerOff Reason: software-command

Restart Options

● Standard Boot

○ Boot Diagnostic System

POINT

- The [RSB] button is enabled only when RSB is available and the Sever Control agent supports it.

● Contents of the Error Message Buffer

Contents appeared in the error message buffer depend on whether the remote service board exists or not.

- When the remote service board exists
  The SEL information that the remote service board acquired and errors that it detected itself appear in the contents of error message buffer.
- When the remote service board does not exist
  The contents of SEL for a server itself appear in the error message buffer.

The list is sorted in the order of date/time and the latest entry is located at the top.

The message consists of five parts, which are "C" (when the message level is critical), date, time, an error number, and message texts.

Select time display either in Greenwich Mean Time or local time.

POINT

- The copy button and the print button can copy the contents of error message buffer displayed in the action window to a clipboard and print to a printer.

● Boot Options

Information about a booting process is displayed in the boot options. These are the information that ServerView displays for the information assigned to BIOS of the server.

- Error Halt Settings
  The settings such as whether a system stops or not at the occurrence of errors are displayed.
- Current Boot Status
  Displays the POST result.
- Last PowerOn Reason
  The power-on reason is displayed.
- Last PowerOff Reason
  The power-off reason is displayed.

● Maintenance

When you click [Maintenance], the [Maintenance] window appears. The amount of time already used for the internal CMOS battery and information about the fans are displayed.

● Automatic System Reconfiguration/Restart (ASR)

This allows you to specify server actions at the occurrence of faults. For more details, refer to "3.2.4 Serious Error Handling (ASR)" (→pg.92).

● Remote Service Board (RSB)

Click [RSB], and the [RSB Properties] window appears. RSB parameters can be specified.

- [Restart Settings] Tab
  This provides the definition of startup/shutdown and restarting for servers and the boot status display. When ServerView is started in the RSB mode, the power-on and power-off operations are enabled. However the power-on and power-off operations for servers are protected with the password.
- [Backup Battery] Tab
  This is not supported.
- [Interface] Tab
  This displays the settings of the primary/secondary channel and the telephone number.

● Restart

Restarts the server. Specify the passed time required for the server to be restarted. When you click this button, the login window appears for security. The user name and password are required with ServerView administrator privileges.

● Shutdown & Off

This button shuts down the server and turns the power off. In addition, specify here the passed time required for the server to be shut down or its power is turned off. When you click this button, the login window appears for security. The user name and password are required with ServerView administrator privileges.

● Abort Shutdown

This button aborts any shutdown that is started by clicking [Restart] or [Shutdown & Off]. When you click this button, the login window appears for security. The user name and password are required with ServerView administrator privileges.
However when the shutdown has already started, aborting is disabled.

POINT

- When [Modify Default User] is executed in the login window, the default user is temporarily modified. However once ServerView exits, this information is lost. When you change the default login user, start [Server Properties] and specify it in the [login] tab window. For this procedure, refer to "3.1.4 Verifying/ Changing the Server Settings" (→pg.79).
- [Boot Diagnostic System] is not supported.

■ Verifying Mass Storage Status

If you click [Mass Storage], the detailed information appears about hard disks and controllers.

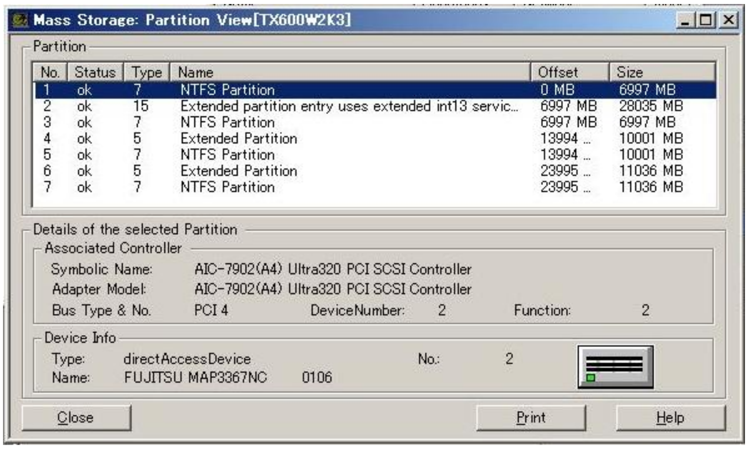
- Controller list
  The critical data, number, status (OK or FAIL), type (EISA, PCI, ISA), slot, and driver name is displayed for controllers.
- Details for Selected Controller
  Data on HD and EISA MIB is displayed.

POINT

- Make sure that you first select the list entry for which information is obtained. Otherwise information of another list entry may be displayed.

● Partition View

If you click [Partition View], the most critical server partition data (the number, status, type, name, offset, and size) is displayed in a table format.



Mass Storage: Partition View[TX600W2K3]

Partition

No.	Status	Type	Name	Offset	Size
1	ok	7	NTFS Partition	0 MB	6997 MB
2	ok	15	Extended partition entry uses extended int13 servic...	6997 MB	28035 MB
3	ok	7	NTFS Partition	6997 MB	6997 MB
4	ok	5	Extended Partition	13994 ...	10001 MB
5	ok	7	NTFS Partition	13994 ...	10001 MB
6	ok	5	Extended Partition	23995 ...	11036 MB
7	ok	7	NTFS Partition	23995 ...	11036 MB

Details of the selected Partition

Associated Controller

Symbolic Name: AIC-7902(A4) Ultra320 PCI SCSI Controller

Adapter Model: AIC-7902(A4) Ultra320 PCI SCSI Controller

Bus Type & No. PCI 4 DeviceNumber: 2 Function: 2

Device Info

Type: directAccessDevice No.: 2

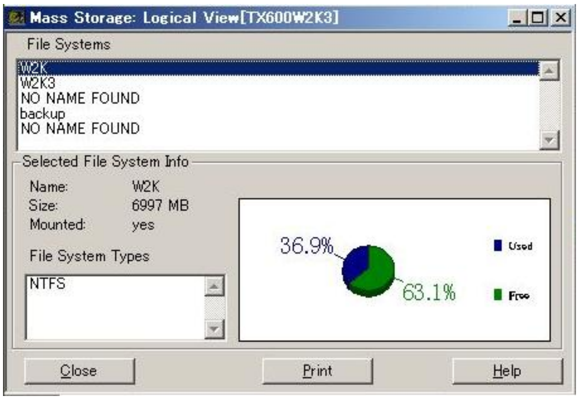
Name: FUJITSU MAP3367NC 0106

[Details of the selected Partition] displays some additional data on the partition selected from the list.

- Associated Controller
  The controller that the partition belongs to is displayed.
- Device Info
  The device in which the partition was created is displayed.

● Logical View

When you click [Logical View], the information about file systems that exist in logical drives is displayed.



Mass Storage: Logical View[TX600W2K3]

File Systems

W2K
W2K3
NO NAME FOUND
backup
NO NAME FOUND

Selected File System Info

Name: W2K

Size: 6997 MB

Mounted: yes

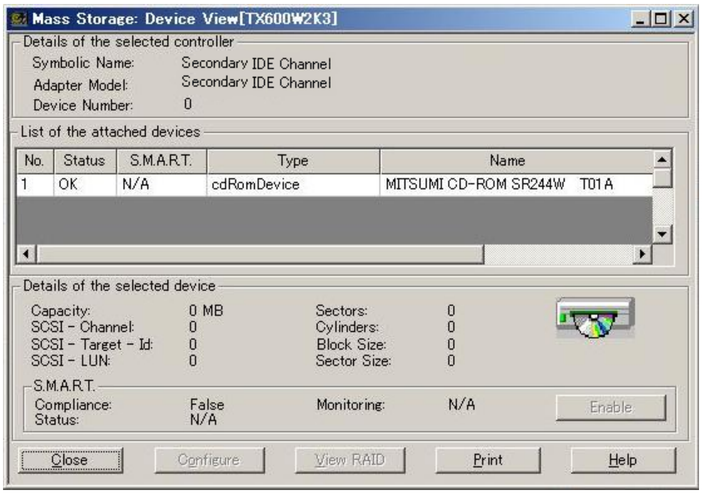
File System Types

NTFS

- File Systems
  The file systems of the selected server appears.
- Selected File System Info
  The additional information (the name, size, mount, file system type, and Used/Free file system area in percentile unit) about the selected file system is displayed.

Device View

When you click [Device View], detailed information about the storage devices connection to a specific controller appears.



Mass Storage: Device View[TX600W2K3]

Details of the selected controller

Symbolic Name: Secondary IDE Channel
Adapter Model: Secondary IDE Channel
Device Number: 0

List of the attached devices

No.	Status	S.M.A.R.T.	Type	Name
1	OK	N/A	cdRomDevice	MITSUMI CD-ROM SR244W T01A

Details of the selected device

Capacity:	0 MB	Sectors:	0
SCSI - Channel:	0	Cylinders:	0
SCSI - Target - Id:	0	Block Size:	0
SCSI - LUN:	0	Sector Size:	0

S.M.A.R.T.

Compliance: False
Status: N/A
Monitoring: N/A

- Details of the selected controller
  The most critical data on the controller controlling devices is displayed again. The displayed data is the symbolic name, adapter model, and device number.
- List of the attached devices
  The most critical data on devices attached to the controller is displayed. The displayed data is the number, status, S.M.A.R.T., type (refer to HD-MIB), and name. One or more devices can be selected from this list.
- Details of the selected device
  The additional data on the device selected from the list is displayed. The displayed data is the capacity, SCSI channel, SCSI target ID, SCSI-LUN, sector, cylinder, block size, sector size, and symbol of Device Type with display status.
  - Self Monitoring and Reporting Technology (S.M.A.R.T.)
    Information displayed in S.M.A.R.T. is returned from the S.M.A.R.T. procedure. S.M.A.R.T. is the technology used to detect an error of a hard device in its early stages (PDA = Prefailure Detection and Analysis). SCSI and ATA hard disk drives are supprorted.

Configure

By clicking [Configure], you can open the RAID Manager window to configure the selected controller.

■ Mass Storage - the RAID controller

The status of the disk connected to the SCSI RAID card/the IDE-RAID card can be displayed.

RAIDmanager/IDE-RAIDmanager is used to monitor and display the SCSI RAID card/the IDE-RAID card. Make sure to install RAIDmanager/IDE-RAIDmanager supplied with the SCSI RAID card/the IDE-RAID card.

The error information detected by RAIDmanager/IDE-RAIDmanager can be reported to the management console.

IMPORTANT

- The information of the SCSI RAID card/the IDE-RAID card may not be correctly displayed depending on a version number of ServerView and RAIDmanager/IDE-RAIDmanager.
  Therefore verify the status using RAID management tools such as RAIDmanager/IDE-RAIDmanager.
- For the settings of Global Array Manager (GAM), see below.
  When using the Linux installation representative service bundle type, refer to the release note supplied with the server. In addition, when using the Linux distribution in the SCSI type or the diskless type, obtain "Driver Kit" of the corresponding machine type from [Download Search] on the following home page to refer to "Installation Guide" contained in "Driver Kit".
  - The Fujitsu PRIMERGY website
    (http://primergy.fujitsu.com)

● Device View

System drives defined in the controller are listed in the left of the [Device View] window. Table entries are the serial number, status, SCSI ID (only PG-142B/PG-142C), size in MB, RAID level, and cache type.

When system drives are selected, the hard disk drive in which these system drives are defined is highlighted in the channel ID table. The selection button of the channel ID grid is used to display the status (colored symbols indicating Online/Dead/Standby-Rebuild) and size in MB. When an alternate device for a hard disk drive (CD-ROM Drives, streamers, printers) is connected, the corresponding image is displayed on the selection button.

● Adaptor View

When you click the [Controller] icon, the [Adaptor View] window appears.

Controller-specific data such as the device model, firmware version, BIOS version, cache size, bus type, slot, IRQ, base address, and EEPROM size (PG-143B only) appears in [Hardware Information].

The channel number, priority of recreating task, logical sector size, physical sector size, number of system drives, maximum number of system drives, number of physical devices, maximum number of physical devices, and BIOS version (PG-143B only) appear in [Disk Array Information].

● Display Physical Devices

When you click [Select Channel ID Grid], the [Display Physical Devices] window appears and the detailed information about the connected devices is displayed.

The information about the device model, device type (such as disks, CDROM Drives), adapter channel, channel adapter ID, and SCSI attribute (Fast SCSIAWide SCSI and tagged queuing) is displayed in [SCSI Device Information].

The status, SMART status, capacity, recreating speed, parity errors, software errors, hardware errors, and other errors are displayed in [Disk Information].

● Details of the Bridge Controller

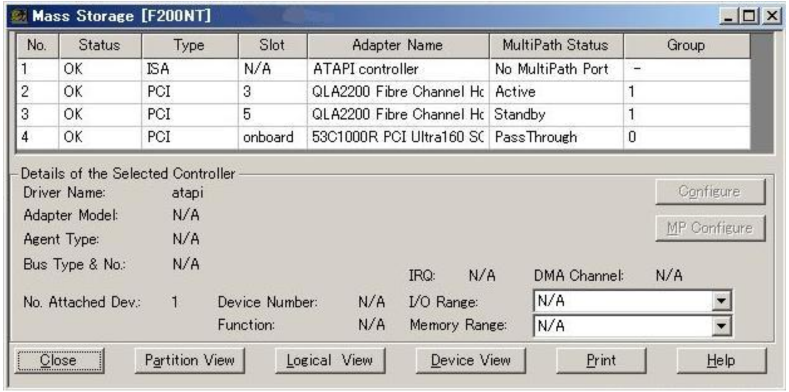
When a SCSI hard drive bridge controller is installed in a server, the information is displayed about the storage devices connected to a specific controller in the server when you click [Device View] in the [Mass Storage] window.

When you click [Configure], the application used to configure the selected controller is started.

When you click [View RAID], the information is displayed about the system drives defined in the selected controller. If the system drives are selected, the hard disk drive in which these system drives are defined is highlighted in the channel ID table.

■ Mass Storage - MultiPath

When MultiPath is installed, the detailed information about MultiPath is displayed by clicking [Mass Storage].



Mass Storage [F200NT]

No.	Status	Type	Slot	Adapter Name	MultiPath Status	Group
1	OK	ISA	N/A	ATAPI controller	No MultiPath Port	-
2	OK	PCI	3	QLA2200 Fibre Channel Hc	Active	1
3	OK	PCI	5	QLA2200 Fibre Channel Hc	Standby	1
4	OK	PCI	onboard	53C1000R PCI Ultra160 SC	PassThrough	0

Details of the Selected Controller
Driver Name: atapi
Adapter Model: N/A
Agent Type: N/A
Bus Type & No.: N/A
IRQ: N/A
DMA Channel: N/A
No. Attached Dev.: 1
Device Number: N/A
I/O Range: N/A
Function: N/A
Memory Range: N/A

MultiPath allows you to connect multiple HBAs (some host bus adapters or fiber channel host bus adapters) to the same storage device through a redundant path. MultiPath provides high availability for devices even if some trouble occurs in connection or HBA. When a trouble occurs, input and output are transferred to devices through another I/O path. In addition, load balancing capability is provided to balance the load more uniformly.

Driver design does not depend on its original SCSI or fibre channel host adapter. The IDE disk controller is not supported. The driver design is compliant with MSCS.

When MultiPath is installed, the [MultiPath Status] information field, the [Group] information field, and the [MP Configure] button are added in the [Mass Storage] window.

● MultiPath Status

In the MultiPath status, one of the following values is displayed.

table: MultiPath Status

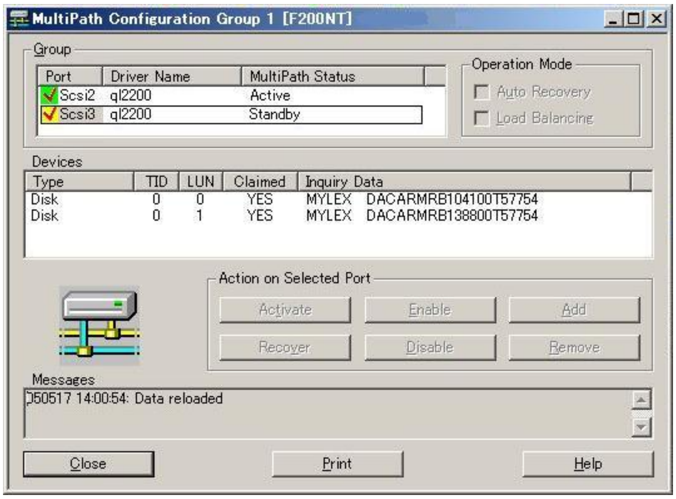
Value	Meaning
Path Through	The second port is not available.
Active	The channel is running. This is user-selected.
Standby (inactive)	Suspending. This is user-selected. When load balancing capability is enabled, this status is not displayed.
Disable	Suspending through maintenance activity.
Error	Any errors occurred at this port.
MultiPath Port does not exist.	This channel/port does not support the MultiPath function (Ex. atapi).

● Group

When there are no MultiPath group numbers or entries do not exist in the MultiPath function, "-" is displayed. One group, which consists of two (up to four) redundant connections between a system cabinet and an external storage cabinet, is wholly connected to the same device.

● MP Configure

When specifying the MultiPath group, select an entry in the external storage device list and click [MP Configure]. The [MultiPath Configuration Group 1] window appears. For details on each item, refer to help topics.



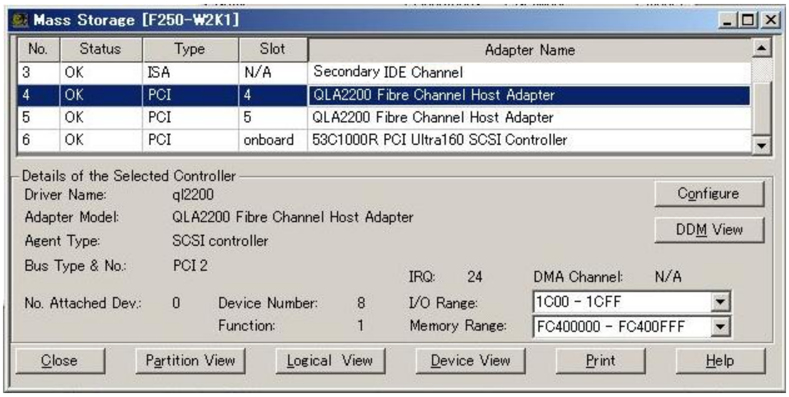
Port	Driver Name	MultiPath Status
✓ Scsi2	ql2200	Active
✓ Scsi3	ql2200	Standby

Type	TID	LUN	Claimed	Inquiry Data
Disk	0	0	YES	MYLEX DACARMRB104100T57754
Disk	0	1	YES	MYLEX DACARMRB138800T57754

```
050517 14:00:54: Data reloaded
```

■ External Storage Devices - DuplexWrite

When DuplexWrite is installed, the information about DuplexWrite is displayed by clicking [Device View].



Mass Storage [F250-W2K1]

No.	Status	Type	Slot	Adapter Name
3	OK	ISA	N/A	Secondary IDE Channel
4	OK	PCI	4	QLA2200 Fibre Channel Host Adapter
5	OK	PCI	5	QLA2200 Fibre Channel Host Adapter
6	OK	PCI	onboard	53C1000R PCI Ultra160 SCSI Controller

Details of the Selected Controller

Driver Name: ql2200

Adapter Model: QLA2200 Fibre Channel Host Adapter

Agent Type: SCSI controller

Bus Type & No.: PCI 2

IRQ: 24

DMA Channel: N/A

No. Attached Dev.: 0

Device Number: 8

I/O Range: 1C00 - 1CFF

Function: 1

Memory Range: FC400000 - FC400FFF

DuplexWrite is the software that improves the ability of disk storage sub system. DuplexWrite that is used with fibre channel connection technology can set up the disaster allowable settings. DuplexWrite duplicates writing operations so that the same information is contained in two disks of the different disk storage sub systems. This is called "Physical Mirroring" because it does not depend on logical data structure such as file system data.

If one of drives fails, DuplexWrite ensure that data processing can continue without interruption by accessing to the other disks that is still operating. When the drive that had a trouble is repaired, data can be recovered during the daily operation. It is not required to restart. This is applied to physical disks as well as complicated RAID volumes.

When DuplexWrite is installed, the following items are added:

- Write Status
- Duplex Disk
- [DW Configure] button

● Write Status

In the Write status, one of the following values is displayed.

table: Write Status

Value	Meaning
Online	Indicates a DuplexWrite disk. This is read preferentially.
Error	The disk is offline because of an error state.
Recovery	The disk is under recovery.
Disable	The disk is set suspending through maintenance activity.
Simplex	The disk is not assigned for DuplexWrite.
N/A	DuplexWrite is not installed or can obtain no status.
MultiPath	This is the second, third, or forth path to the disk through MultiPath.
Missing	No disks exist (the entry created by COD of the partner disk).
<name>	The disk is used by the different MSCS cluster node <name>.

● Duplex Disk

Duplex Disk is required to specify the DuplexWrite group. The DuplexWrite group consists of one or two disks.

● DW Configure

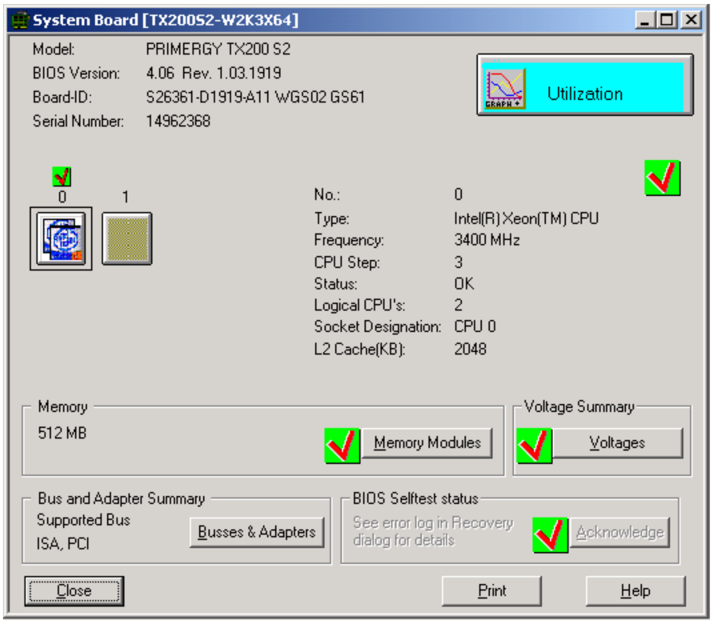
When you specify the DuplexWrite group, select an entry in the [Device View] menu and click [DW Configure]. The [Disk Groups] window appears.
[DW Configure] can be selected when the DuplexWrite agent is installed in the selected server and the DuplexWrite status other than N/A, MultiPath, or <cluster node name> is displayed in the selected entry.
For details on each item, refer to help topics.

POINT

- ServerView provides the Archive Data mode for offline reading of data snapshots and the specified data. When this mode is enabled, DuplexWrite cannot be specified. It is not available except for closing, printing, or using help.

■ Verifying the System Board Status

The data for processors, memory modules, bus systems, and controllers (Ex. Board-ID of the system board and the BIOS version) is displayed by clicking [System Board].
Serial numbers may not be displayed depending on server machine types.



System Board [TX200S2-W2K3X64]

Model: PRIMERGY TX200 S2
BIOS Version: 4.06 Rev. 1.03.1919
Board-ID: S26361-D1919-A11 WGS02 GS61
Serial Number: 14962368

No.: 0
Type: Intel(R) Xeon(TM) CPU
Frequency: 3400 MHz
CPU Step: 3
Status: OK
Logical CPU's: 2
Socket Designation: CPU 0
L2 Cache(KB): 2048

Memory
512 MB

Voltage Summary

Bus and Adapter Summary
Supported Bus
ISA, PCI

BIOS Selftest status
See error log in Recovery dialog for details

● Utilization

A usage percent of each processor or a usage percent of a single processor in multi-processor systems are displayed.

● Memory Modules

The number, bank, module state, starting address, size, approval, and name (optional) are displayed for every module by clicking [Memory Modules].

● Voltages

The information is displayed about voltage of the system board installed in the server is displayed by clicking [Voltages].

● Busses & Adapters

The information is displayed about the available bus systems (Ex. EISA, PCI), the connected controller, and its function is displayed by clicking [Busses & Adapters].

● BIOS Selftest status

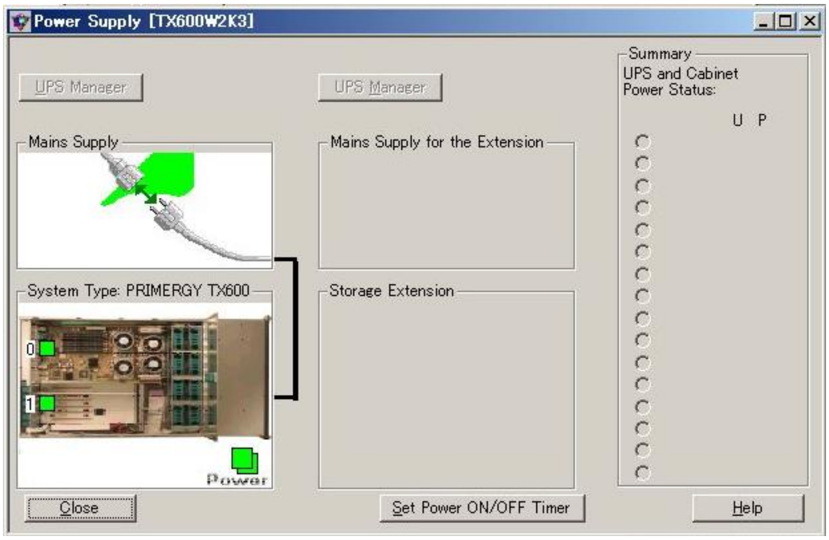
The result of the self test executed by BIOS at PowerON is displayed for the server.
When it is the "abnormal" icon, it can be restored to the "normal" icon by clicking [Approve]. For details about "abnormal", verify [Contents of Error Message Buffer] within the [Recovery] window.
However this item is not displayed for BIOS that does not have its own self test notification function (including difference in versions).

POINT

- If you reinstall ServerView Agent in the state where you have restored the "normal" icon by clicking [Acknowledge], the "abnormal" icon may appear again (a trap may occur at the same time). Click [Acknowledge] again to restore the "normal" icon.

■ Verifying the Power Supply Status

The power supply settings and status are displayed for servers are displayed by clicking [Power Supply]. When the power supply operates properly, a green rectangle is displayed in the lower-right corner of the corresponding diagram.
For the redundant power supply, two cascaded rectangles are displayed.



● Mains Supply

The black cable that is connected to the server and if necessary, also connected to another expansion storage device is displayed. Malfunction of a server or an expansion storage device is represented in a yellow or red rectangle.
Usually a status is examined every 60 seconds. When there is any voltage failure of the main line in UPS, the trap that starts fast polling (at intervals of 5 seconds) is sent for the displayed value. Then edges of the Elapsed Time UPS running on Battery field turn yellow. The main line of UPS is displayed in red.

● System Type

A server and BBU within a storage cabinet (if available) are displayed. The overall status of server power supply is represented in a green, yellow or red rectangle.

● Storage Extensions

Existing extension storage devices are displayed. This can also detect installation of BBU. The overall status of power supply in an expansion storage device is represented in a green or red rectangle.

● Summary

The selection radio button can be used to select an expansion storage device. At the same time, the green or red rectangle next to each selection button always reports the status of power supply within every expansion storage device.

● Set Power ON/OFF Timer

The ASR properties start and then the [Power ON/OFF] tab window is displayed by clicking [Set Power ON/OFF Timer]. The starting/exiting time of a server can be specified. For this procedure, refer to "■ [Power ON/OFF] Tab" (→pg.95).

● UPS Manager

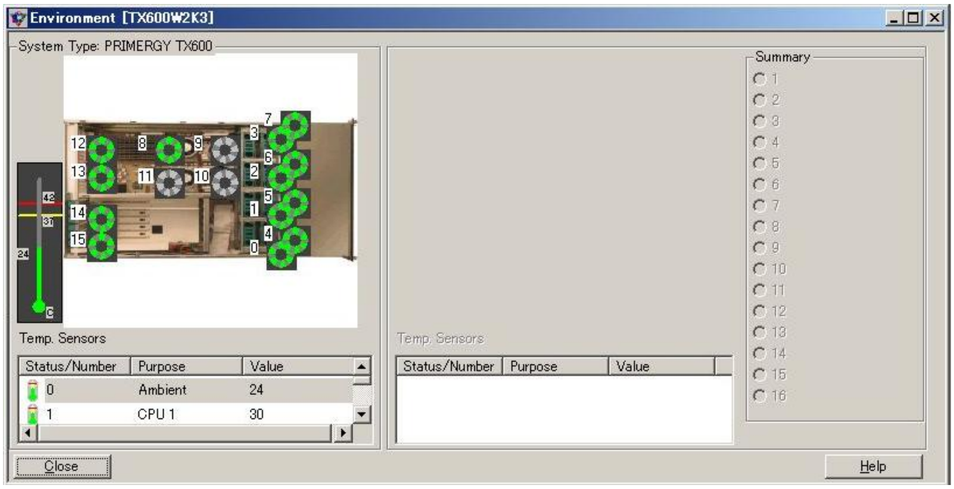
Unsupported.
When the UPS management software is installed and the settings for interaction with the UPS management software are assigned, the [UPS Manager] button is enabled.

■ Verifying the Environment Status

Status of temperature and fans for servers and expansion units connected to the server is displayed by clicking [Environment]. Also displays whether or not some doors and the server's case are open.
The threshold for such status display is determined by the basic threshold assigned to servers (hardware). This is not determined by the threshold assigned in the threshold manager.

POINT

- Some server types do not support the information whether doors or the server's case is open or shut.



Environment [TX600₩2K3]

System Type: PRIMERGY TX600

Temp. Sensors

Status/Number	Purpose	Value
0	Ambient	24
1	CPU 1	30

Temp. Sensors

Status/Number	Purpose	Value

A yellow server icon indicates that some doors or server's case is open. For an expansion storage device, a yellow rectangle is also displayed with in [Summary].
Fans and temperature are represented in icons. Each color indicates the status below.

table: Status of fans and temperature

	Shutdown	Danger	OK	Sensor Failure	No Verify
Temperature	red	yellow	green	blue	gray
Fan	red	yellow	green	---	gray

A temperature sensor always displays the value of the most critical sensor. When the values of all sensors are equal, the last sensor in the list is displayed. To call the status of a single sensor, click the line corresponding to the sensor from the list.
For redundant fans, two fan control symbols are cascaded. Both symbols must be green to indicate true redundancy.

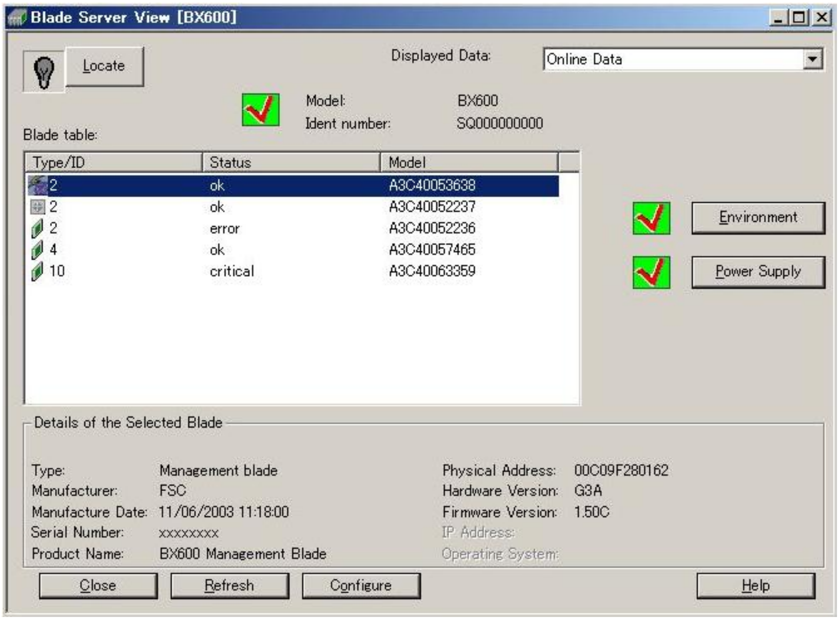
3.3.4 Verifying the Status of the Blade Servers

Verify the blade server status.

1 Select a blade server.

2 Click the [File] menu → [Open].

The [Blade ServerView [Server Name]] window appears and the details for the selected server are displayed.



Blade Server View [BX600]

Displayed Data: Online Data

Model: BX600
Ident number: SQ000000000

Blade table:

Type/ID	Status	Model
2	ok	A3C40053638
2	ok	A3C40052237
2	error	A3C40052236
4	ok	A3C40057465
10	critical	A3C40063359

Details of the Selected Blade

Type: Management blade
Manufacturer: FSC
Manufacture Date: 11/06/2003 11:18:00
Serial Number: xxxxxxxx
Product Name: BX600 Management Blade
Physical Address: 00C09F280162
Hardware Version: G3A
Firmware Version: 1.50C
IP Address:
Operating System:

Locate

This enables the system identification LED display to switch. It is available only when a server supports the system identification LED display.

The current status of system identification LED is displayed in the icon. There are three icons below.

:LED ON : LED OFF

:Flashing LED (Indicates a system error)

Displayed Data

Specify the data type to display for the selected blade server. When archive data is obtained, it can also be specified.

3 Verify the blade server status. Click the button of the item that you want to verify.

IMPORTANT

- When the security is enabled on the management blade, user login is needed for button operations.
  You can specify the user name and password by connecting to the management blade through Telnet or a Web interface.

table: Blade Server Status

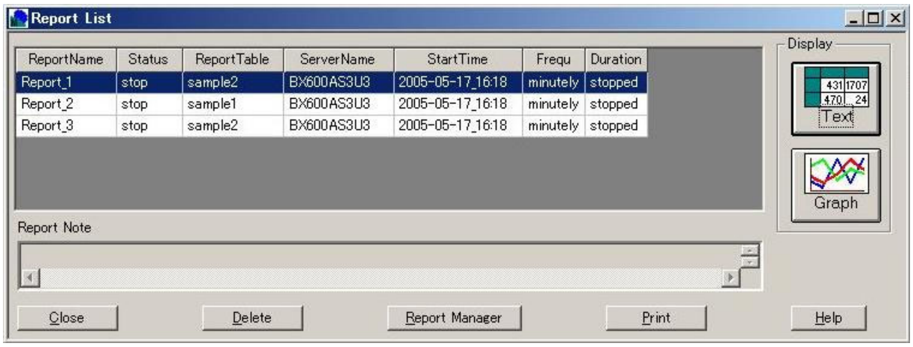
Items	Description
Status of Entire System	The status of the entire blade server is displayed in the icon.
Model	The blade server system name specified in the management blade is displayed.
Ident Number	The ID number of the blade server system is displayed.
Blade Table	The table for all the blades that exist in the blade server system is displayed. For Type/ID, the blade ID and blade type are displayed in the icon. : Management blade (master) :Management blade (slave) :Switch blade :Server blade
Details of the Selected Blade	The detailed information of the selected blade is displayed.
Environment	Status for environment sub systems (fans, temperature) is displayed.
Power Supply	Status for power supply sub systems is displayed.
Refresh	Updates information that is displayed in the window.
Configure	When the management blade or the switch blade is selected, the configuration window (Web browser) of each blade appears by clicking [Configure]. For each blade settings windows, refer to the respective manual for the management blade or the switch blade. However when the server blade is selected, this button is disabled.
Help	Help topics for each item appears.

4 After verification, click [Close] to exit.

3.3.5 Reviewing Reports

1 Click the [Reports] menu → [List].

The [Report List] window is displayed.



ReportName	Status	ReportTable	ServerName	StartTime	Frequ	Duration
Report_1	stop	sample2	BX600AS3U3	2005-05-17_16:18	minutely	stopped
Report_2	stop	sample1	BX600AS3U3	2005-05-17_16:18	minutely	stopped
Report_3	stop	sample2	BX600AS3U3	2005-05-17_16:18	minutely	stopped

2 Verify the information.

Verifying details of reports

1. Select a report that you want to verify from the list and click [Text].

   The [Text] window appears and the detailed information is displayed for each item of the repot.

Verifying report Information in graphical representation

1. Click [Graph].

   The [Graph] window appears and a history of report information is displayed in graphical representation.

3 Click [Close] to exit.

POINT

- Reports are created in the ASCII format. The created text file that is named "repnnn.txt" is saved in the "\ServerView_installdir\Reports\server_name" folder.
- This report can be exported to Excel in the following procedure:
  1. Import the report in Excel using the Excel text wizard.
     Note that the fields in the report do not have fixed length and are delimited by a space at this time.
  2. Customize the Excel repor layout or convert to a graphical format.

3.4 Archive Manager

The archive manager is used to create, display, and compare archive data from a server.

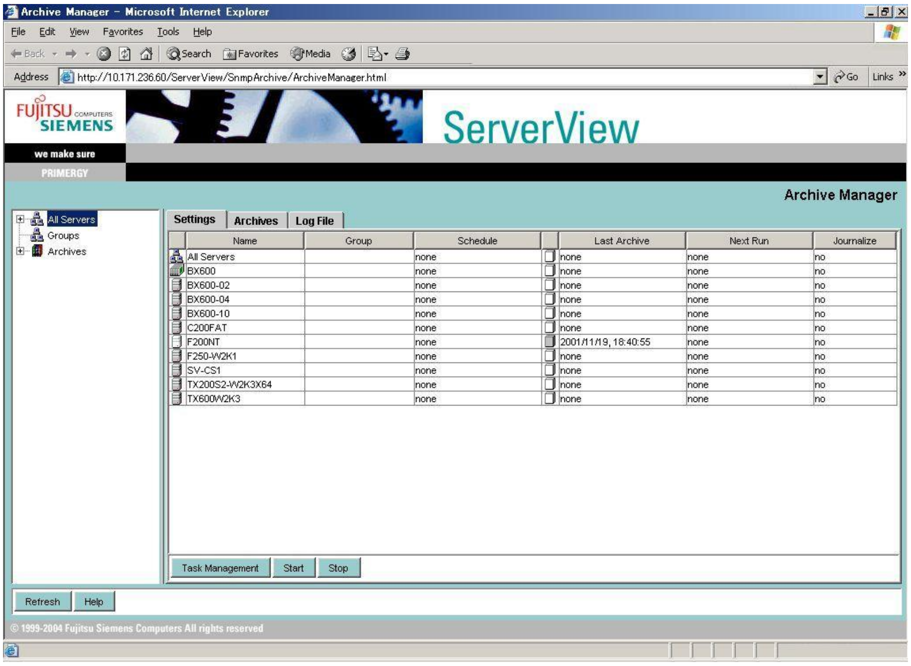
POINT

- For details about the archive manager, refer to online help topics.

3.4.1 Starting the Archive Manager

1 Click the [Archive Manager] icon or click the [Tools] menu → [Archive Manager].

The [Archive Manager] window appears.


Archive Manager - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.60/ServerView/SnmpArchive/ArchiveManager.html
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Archive Manager
All Servers
Groups
Archives
Settings
Archives
Log File
Task Management
Start
Stop
Refresh
Help
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Name	Group	Schedule		Last Archive	Next Run	Journalize
All Servers		none	□	none	none	no
BX600		none	□	none	none	no
BX600-02		none	□	none	none	no
BX600-04		none	□	none	none	no
BX600-10		none	□	none	none	no
C200FAT		none	□	none	none	no
F200NT		none	■	2001/11/19, 18:40:55	none	no
F250-W2K1		none	□	none	none	no
SV-CS1		none	□	none	none	no
TX200S2-W2K3X64		none	□	none	none	no
TX600W2K3		none	□	none	none	no

POINT

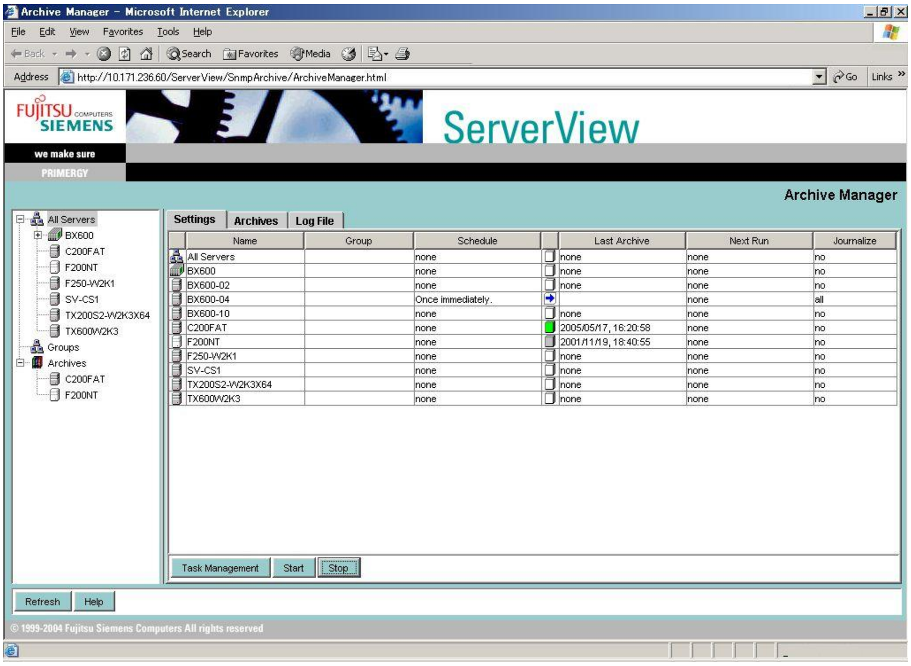
- When ServerView has not been started, click the [Start] button → [Programs] → [Fujitsu ServerView] → [Archive Manager].
- The [Settings] tab is automatically updated when each task starts/stops or when each archive settings are changed. Click [Refresh] to update an entire Web page including the server list and task information.

3.4.2 Create Archive Data

1 Select the server (group) from the server list in which archive data is created. Multiple servers can be selected.

2 Click the [Settings] tab.

Information of the server in which archive data is created appears.


Archive Manager - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.60/ServerView/SnmpArchive/ArchiveManager.html
Go Links
FUJITSU COMPUTERS SIEMENS
ServerView
we make sure
PRIMERGY
Archive Manager
All Servers
BX600
C200FAT
F200NT
F250-W2K1
SV-CS1
TX200S2-W2K3X64
TX600W2K3
Groups
Archives
C200FAT
F200NT
Settings
Archives
Log File
Task Management
Start
Stop
Refresh
Help
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Name	Group	Schedule		Last Archive	Next Run	Journalize
All Servers		none	□	none	none	no
BX600		none	□	none	none	no
BX600-02		none	□	none	none	no
BX600-04		Once immediately.	➡		none	all
BX600-10		none	□	none	none	no
C200FAT		none	🟩	2005/05/17, 16:20:58	none	no
F200NT		none	▨	2001/11/19, 18:40:55	none	no
F250-W2K1		none	□	none	none	no
SV-CS1		none	□	none	none	no
TX200S2-W2K3X64		none	□	none	none	no
TX600W2K3		none	□	none	none	no

table: Information of Server in which Archive Data Is Created

Items	Description
Name	The object name is displayed.
Schedule	The task schedule is displayed.
Last Archive	The last created archive is displayed.
Next Run	The time when the archive task is executed at the next run is displayed.
Journalize	Journalize information is displayed.

3 Click [Start].

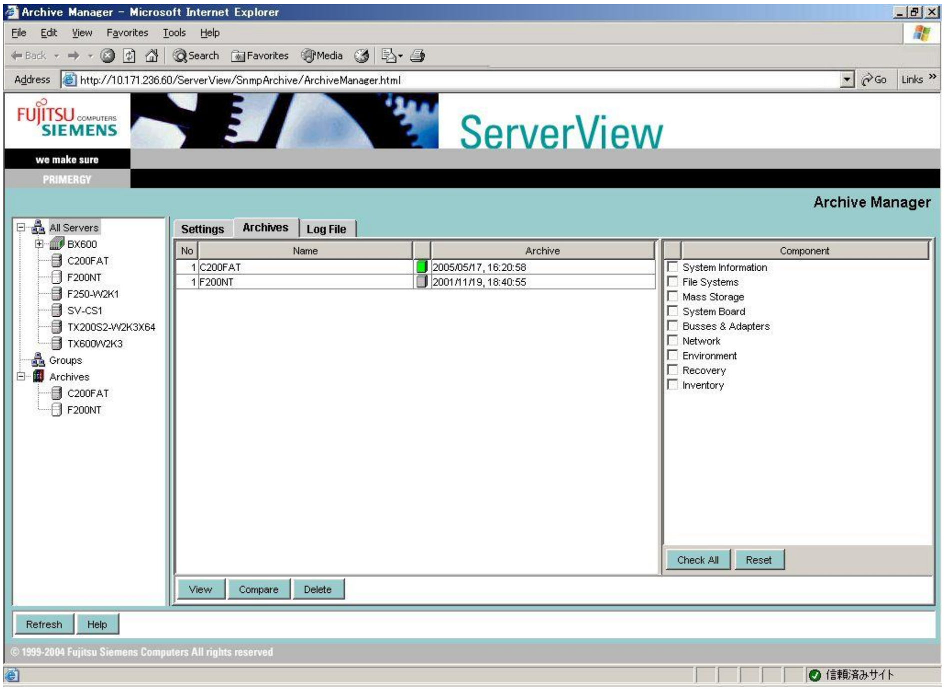
The archive task of the selected server is started.

POINT

- Click [Task Management] to add or edit a task. The archive task window is displayed. Specify the required items. For details, refer to help topics.
- The currently running archive task stops by clicking [Stop].
- The directories where archive data is stored are as follows.
  - When ServerView Web-Server (Apache for Win32 base) is used
    System Drive:\Program Files\Fujitsu\F5FBFE01\ServerView Services\wwwroot\ServerView\Archive\[server name]\
  - When IIS is used
    System Drive:\Inetpub\wwwroot\ServerView\Archive\[server name]\

3.4.3 Displaying/Comparing/Deleting Archive Data

Display/compare/delete archive data in the [Archives] tab.



Address: http://10.171.236.60/ServerView/SnmpArchive/ArchiveManager.html

No	Name		Archive
1	C200FAT	🟩	2005/05/17, 16:20:58
1	F200NT		2001/11/19, 18:40:55

Component

- □ System Information
- □ File Systems
- □ Mass Storage
- □ System Board
- □ Busses & Adapters
- □ Network
- □ Environment
- □ Recovery
- □ Inventory

■ Displaying Archive Data

Display archive data for applications.

1 Select the server that has archive data to display.

2 Click the [Archives] tab and select the corresponding archive.

3 Select the item you want to display in the component list.

4 Click [View]

The selected archive data is displayed in the archive manager window.

■ Comparing Archive Data

Compare archive data in a server.

1 Select the server that has archive data to compare.

Multiple servers can be selected.

2 Click the [Archives] tab and select two corresponding archives.

3 Select the item you want to compare in the component list.

4 Click [Compare].

Any difference is discriminated by the first field and displayed in two different colors. The information that exists only in either of the two archive data is discriminated from the information with different values that exists in both archive data.

■ Deleting Archive Data

Delete archive data in a server.

1 Select the server that has archive data to be deleted.

Multiple servers can be selected.

2 Click the [Archives] tab and select the corresponding archive.

3 Click [Delete]

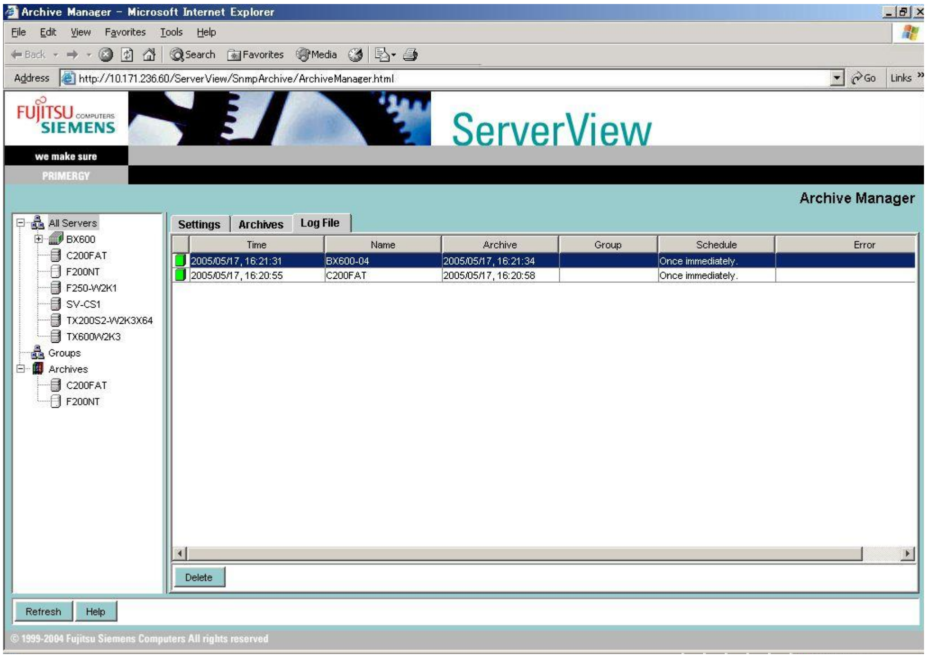
The archive data is deleted.

3.4.4 Archive Data Log

List archive data logs.

1 Click the [Log File] tab.

Log files are listed.


Archive Manager - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.60/ServerView/SnmpArchive/ArchiveManager.html
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Archive Manager
All Servers
BX600
C200FAT
F200NT
F250-W2K1
SV-CS1
TX200S2-W2K3X64
TX600W2K3
Groups
Archives
C200FAT
F200NT
Settings
Archives
Log File
Delete
Refresh
Help
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	Time	Name	Archive	Group	Schedule	Error
🟩	2005/05/17, 16:21:31	BX600-04	2005/05/17, 16:21:34		Once immediately.	
🟩	2005/05/17, 16:20:55	C200FAT	2005/05/17, 16:20:58		Once immediately.	

table: Log List in Archive Manager

Items	Description
Time	The day and time when archive data is obtained are displayed.
Name	The object name is displayed.
Archive	The archive name is displayed.
Schedule	The format in which the archive is obtained is displayed.

3.5 Version Management

The Version management mode provides the Inventory View that lists hardware and software versions in a server, as well as the export manager that stores the ServerView data in any external medias.

3.5.1 Inventory View

1 Click [Version Management] in the server management window.

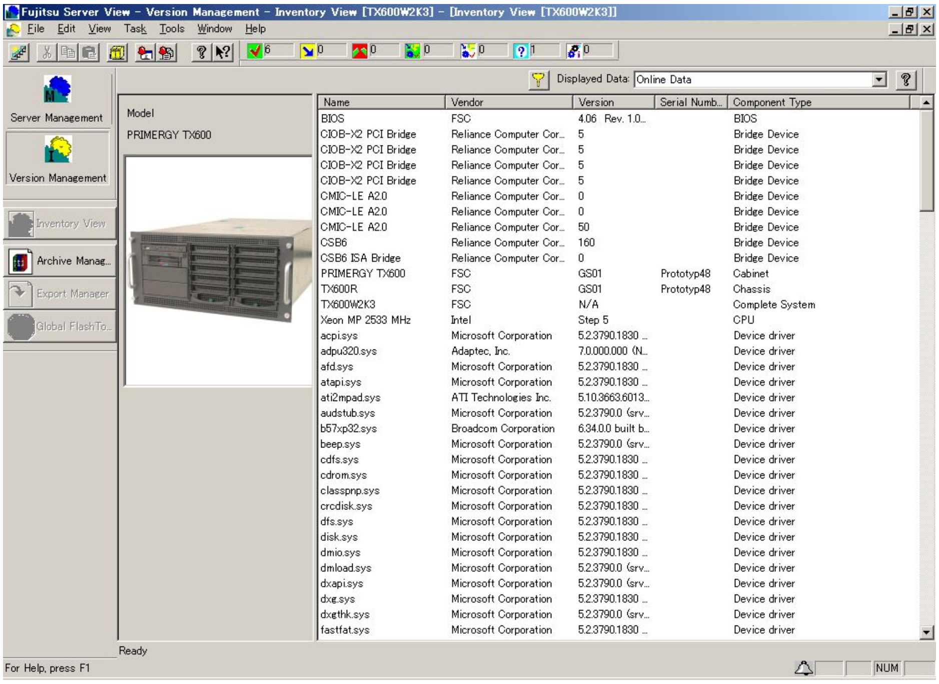
The system is switched to the version management mode.

2 Select a server that you want to verify from the [Server List] and click [Inventory View].

POINT

- Inventory View can be also displayed using one of the following methods:
  •Click the [File] menu → [Open].
  •Right-click on the server and click [Open].

Version information is displayed.



Displayed Data: Online Data

Model

PRIMERGY TX600

Name	Vendor	Version	Serial Numb...	Component Type
BIOS	FSC	4.06 Rev. 1.0...		BIOS
CIOB-X2 PCI Bridge	Reliance Computer Cor...	5		Bridge Device
CIOB-X2 PCI Bridge	Reliance Computer Cor...	5		Bridge Device
CIOB-X2 PCI Bridge	Reliance Computer Cor...	5		Bridge Device
CIOB-X2 PCI Bridge	Reliance Computer Cor...	5		Bridge Device
CMIC-LE A2.0	Reliance Computer Cor...	0		Bridge Device
CMIC-LE A2.0	Reliance Computer Cor...	0		Bridge Device
CMIC-LE A2.0	Reliance Computer Cor...	50		Bridge Device
CSB6	Reliance Computer Cor...	160		Bridge Device
CSB6 ISA Bridge	Reliance Computer Cor...	0		Bridge Device
PRIMERGY TX600	FSC	GS01	Prototyp48	Cabinet
TX600R	FSC	GS01	Prototyp48	Chassis
TX600W2K3	FSC	N/A		Complete System
Xeon MP 2533 MHz	Intel	Step 5		CPU
acpi.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
adpu320.sys	Adaptec, Inc.	7.0.000.000 (N...		Device driver
afd.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
atapi.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
ati2mpad.sys	ATI Technologies Inc.	5.10.3663.6013...		Device driver
audstub.sys	Microsoft Corporation	5.2.3790.0 (srv...		Device driver
b57xp32.sys	Broadcom Corporation	6.34.0.0 built b...		Device driver
beep.sys	Microsoft Corporation	5.2.3790.0 (srv...		Device driver
cdfs.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
cdrom.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
classpnp.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
crcdisk.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
dfs.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
disk.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
dmio.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
dmload.sys	Microsoft Corporation	5.2.3790.0 (srv...		Device driver
dxapi.sys	Microsoft Corporation	5.2.3790.0 (srv...		Device driver
dxg.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver
dxgthk.sys	Microsoft Corporation	5.2.3790.0 (srv...		Device driver
fastfat.sys	Microsoft Corporation	5.2.3790.1830 ...		Device driver

Ready

For Help, press F1

[Displayed Data]

The data type of the server is displayed.

table: Server Data Type

Items	Description
Archive Data	Displays the archive data for each archive in the selected server.
Online Data	Displays the current inventory data.
Last Data	Displays the latest data, when the selected server is down.
Rescan Inventory	Obtains inventory data again.

3 Verify the displayed information.

4 Click the x button in the upper right of the window to close.

POINT

- When you want to display the latest Inventory View data, execute Rescan Inventory to obtain the data again.

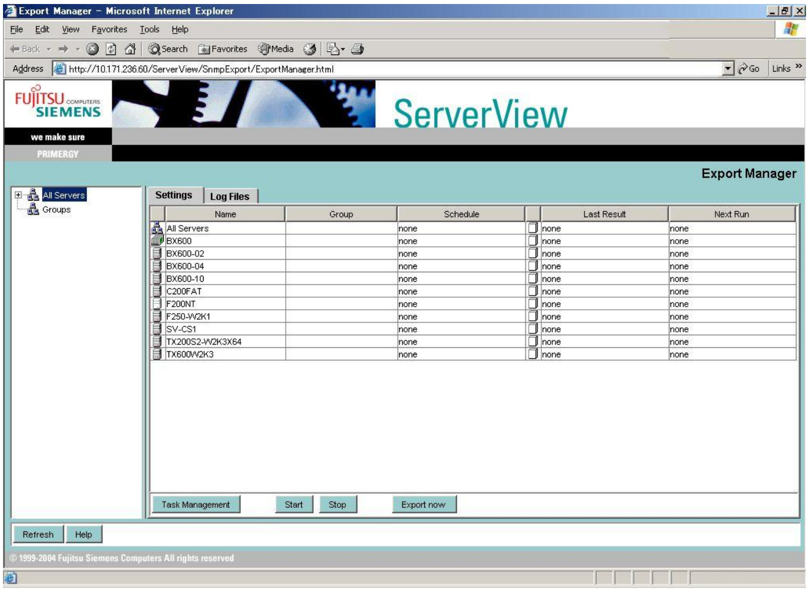
3.5.2 Export Manager

ServerView can export data to store it in an external media (Ex. file, database).

1 Click [Version Management].

2 Click [Export Manager].

The [Export Manager] window appears.


Export Manager - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.60/ServerView/SnmpExport/ExportManager.html
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Export Manager
All Servers
Groups
Settings
Log Files
Task Management
Start
Stop
Export now
Refresh
Help
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Name	Group	Schedule		Last Result	Next Run
All Servers		none	□	none	none
BX600		none	□	none	none
BX600-02		none	□	none	none
BX600-04		none	□	none	none
BX600-10		none	□	none	none
C200FAT		none	□	none	none
F200NT		none	□	none	none
F250-W2K1		none	□	none	none
SV-CS1		none	□	none	none
TX200S2-W2K3X64		none	□	none	none
TX600W2K3		none	□	none	none

table: Information Displayed in the Export Manager Window

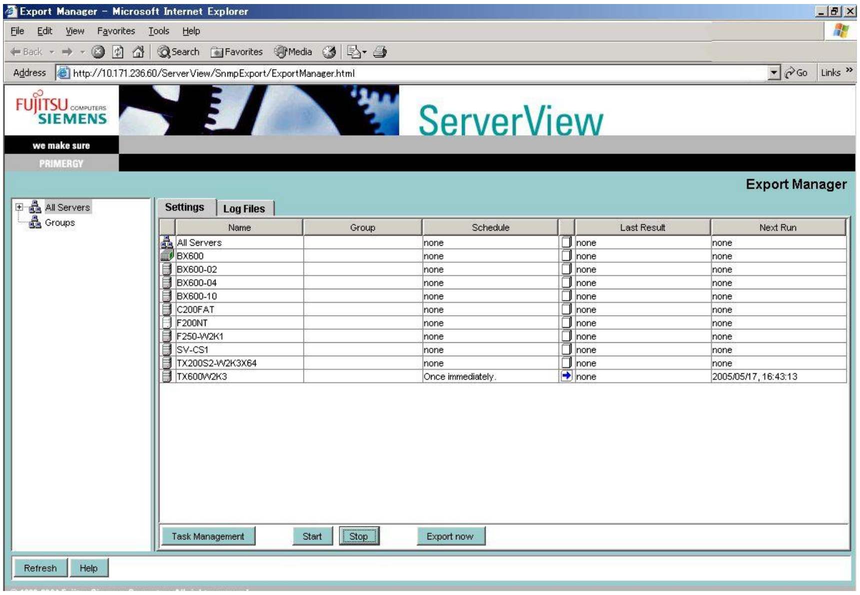
Name		Description
Name		The object name is displayed.
Group		The object group name is displayed.
Schedule		The task schedule is displayed.
Export Status Icon		Export status is displayed in the icon.
	✅	Export data has been successfully obtained. The obtained file is stored in the server and can be read.
	🟩	Export data has been successfully obtained. The obtained file is stored in another server.
	➡	Obtaining export data is in progress.
	🟥	Obtaining export data failed.
	□	Export data is unknown.
Last Result		The last time when export data is created is displayed.
Next Run		The time when an export task is executed at the next run is displayed.

POINT

- Export Manager can be also displayed using one of the following methods:
  •Select [Export Manager] from the [Tools] menu.
  •Right-click on the server and click [Export Manager].
  •When ServerView has not been started, click the [Start] button → [Programs] → [Fujitsu ServerView] → [Export Manager].

3 Create export data.

Click the [Settings] tab and select the server in which export data is to be created.


Export Manager - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.60/ServerView/SnmpExport/ExportManager.html
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Export Manager
All Servers
Groups
Settings
Log Files
Task Management
Start
Stop
Export now
Refresh
Help

	Name	Group	Schedule		Last Result	Next Run
	All Servers		none		none	none
	BX600		none		none	none
	BX600-02		none		none	none
	BX600-04		none		none	none
	BX600-10		none		none	none
	C200FAT		none		none	none
	F200NT		none		none	none
	F250-W2K1		none		none	none
	SV-CS1		none		none	none
	TX200S2-W2K3X64		none		none	none
	TX600W2K3		Once immediately.	➡	none	2005/05/17, 16:43:13

Create export data using the current information (quick export)

Click [Start].

Creation of export data starts and the export data is created with the current information. Click [Exit] to interrupt. Multiple servers can also be selected.

POINT

- When you select multiple servers and click [Start], all are aggregated to one file in one server among the target servers. Verify which server aggregated the data to its file using the export status icon.
- For the quick export, the file name and stored location cannot be specified for the export file to obtain. When the task is executed in succession, a file is overwitten.

Create export data specifying a period

Click [Task Management].

The export task window is displayed. Specify time (period), and the type of obtained data to create export data. For details, refer to help topics.

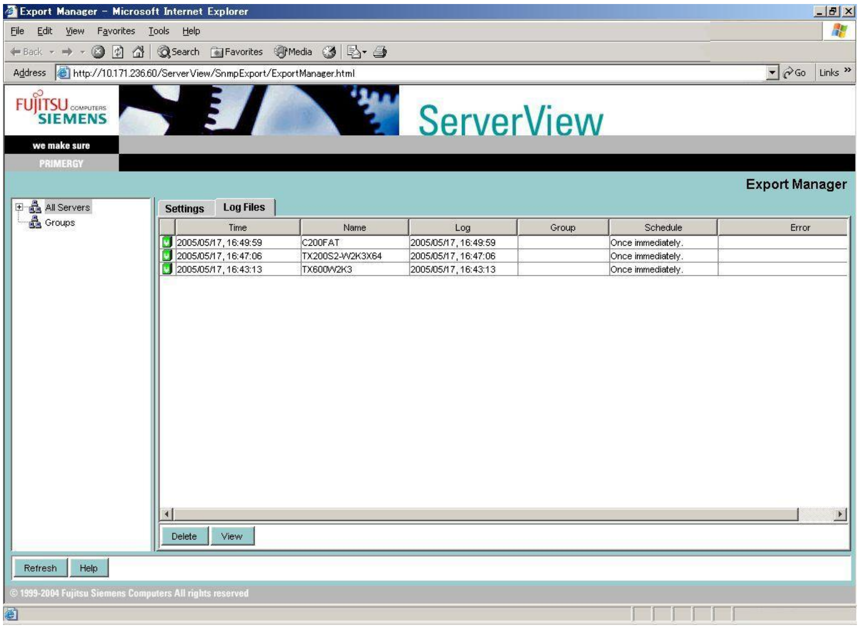
Create export data specifying information to obtain

Click [Export now].

The export information window is displayed. Specify the type of data, file name, and format to obtain, and the stored location to create export data. For details, refer to help topics.

3.5.3 Browse Export Data

After completing the export task, click the [Log Files] tab to browse the export data.


Export Manager - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.60/ServerView/SnmpExport/ExportManager.html
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Export Manager
All Servers
Groups
Settings
Log Files
Delete
View
Refresh
Help
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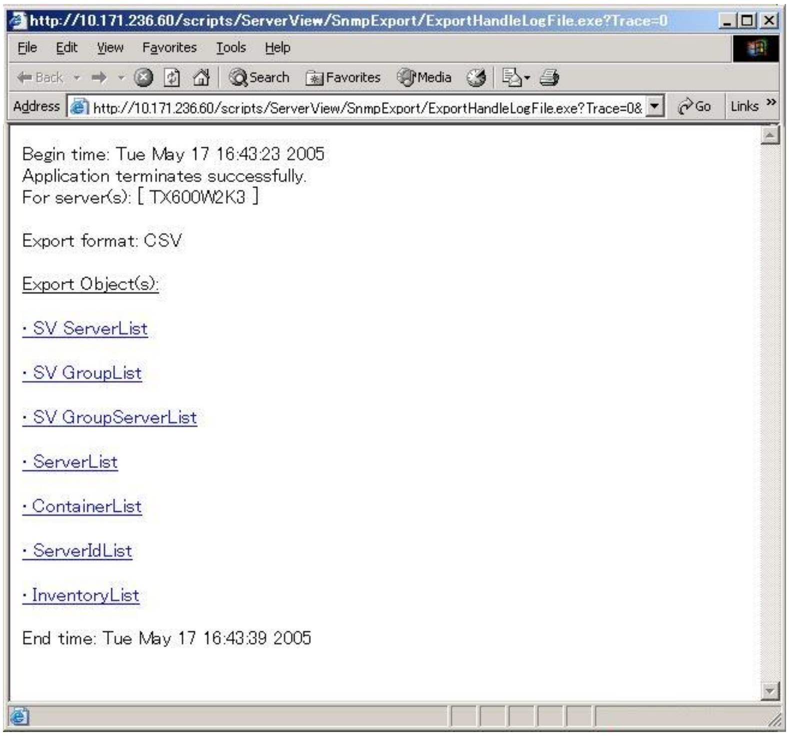
	Time	Name	Log	Group	Schedule	Error
✓	2005/05/17, 16:49:59	C200FAT	2005/05/17, 16:49:59		Once immediately.	
✓	2005/05/17, 16:47:06	TX200S2-W2K3X64	2005/05/17, 16:47:06		Once immediately.	
✓	2005/05/17, 16:43:13	TX600W2K3	2005/05/17, 16:43:13		Once immediately.	

table: Description of Items of [Log Files] Tab in Export Manager

Name	Description
Time	The creation time of export file is displayed.
Name	The object name is displayed.
Log	The detailed time of file creation is displayed.
Group	The object group name is displayed.
Schedule	The schedule of obtaining task is displayed.
Error	The error information of export task is displayed.

1 Select the export data that you want to display and click [View].

The visible export data is listed.


http://10.171.236.60/scripts/ServerView/SnmpExport/ExportHandleLogFile.exe?Trace=0
File Edit View Favorites Tools Help
Back
Search
Favorites
Media
Address
http://10.171.236.60/scripts/ServerView/SnmpExport/ExportHandleLogFile.exe?Trace=0&
Go
Links

Begin time: Tue May 17 16:43:23 2005
Application terminates successfully.
For server(s): [TX600W2K3]

Export format: CSV

Export Object(s):

- SV ServerList
- SV GroupList
- SV GroupServerList
- ServerList
- ContainerList
- ServerIdList
- InventoryList

End time: Tue May 17 16:43:39 2005

2 Click the data that you want to browse. To save data, right-click on the data to save and click [Save Object to File].

POINT

- When export data is obtained without specifying any file names in the quick export ([Start]) or the schedule settings ([Task Management]), all the export files are stored in the server that obtained it last.
- When multiple servers are selected to obtain export data at once, the data for all the servers is stored in the file marked with ✓ among the files created at the same Time.
- When exporting is executed with specified information to obtain, the data can be downloaded in the obtained results verification window if the [Show progress window] item is selected. For details, refer to help topics.

3.6 How to Use ServerView WebExtension

When ServerView Console or Linux Server WebExtension is installed, servers can be monitored through the Web browser.

3.6.1 Starting ServerView WebExtension

POINT

- When SSL is enabled in ServerView, SSL connection is available at the Web connection. The authentication window appears when connection is established. The authentication defaults to the user name "svuser" and the password "fsc".
  Delete this user and add an appropriate user for your security. For the procedure to add some users, refer to "● ServerView Web-Server and SSL" (→pg.267).

1 Start the Web browser.

2 Enter one of the following URL and press the [Enter] key.

When IIS or Linux is used

http://<server name or server IP address>/ServerView/

http://<server name or server IP address>/sv_www.html

When ServerView Web-Server is used (normal connection)

http://<server name or server IP address>:3169/ServerView/

http://<server name or server IP address>:3169/sv_www.html

When ServerView Web-Server is used (SSL connection)

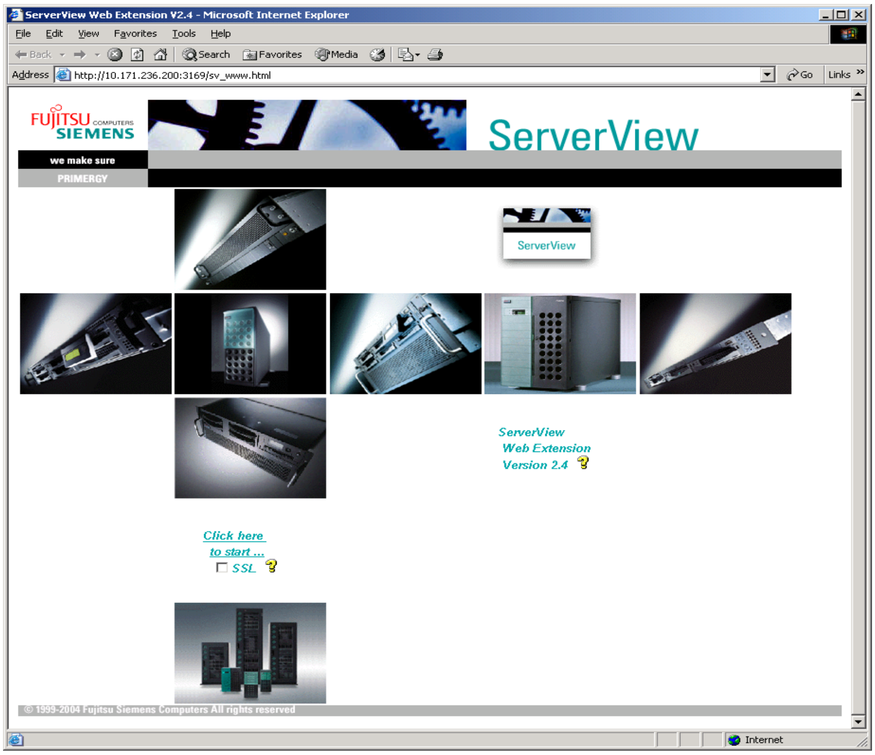
https://<server name or server IP address>:3170/ServerView/

https://<server name or server IP address>:3170/sv_www.html

IMPORTANT

- If Windows 2003 Internet Explorer is used for the Web browser, the following procedure is required after the Web browser has been started.
  - Adding a Web site
  1. Select [Internet Options] from the [Tools] menu.
  2. Click the [Security] tab and select [Intranet] or [Trusted sites].
  3. Click [Sites] to add the URL of the server where ServerView WebExtension was installed.
- If Mozilla or Netscape is used for the Web browser, the following procedure is required after the Web browser is started.
  - Removing pop-up window blocking
  1. Select [Preferences] from the [Edit] menu.
  2. Select [Pop-up Window] under [Privacy & Security] from the category.
  3. Clear [Block unrequested pop-up windows].

ServerView Web Extension is started.


ServerView Web Extension V2.4 - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.200:3169/sv_www.html
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
ServerView
ServerView Web Extension Version 2.4
Click here to start ...
□ SSL
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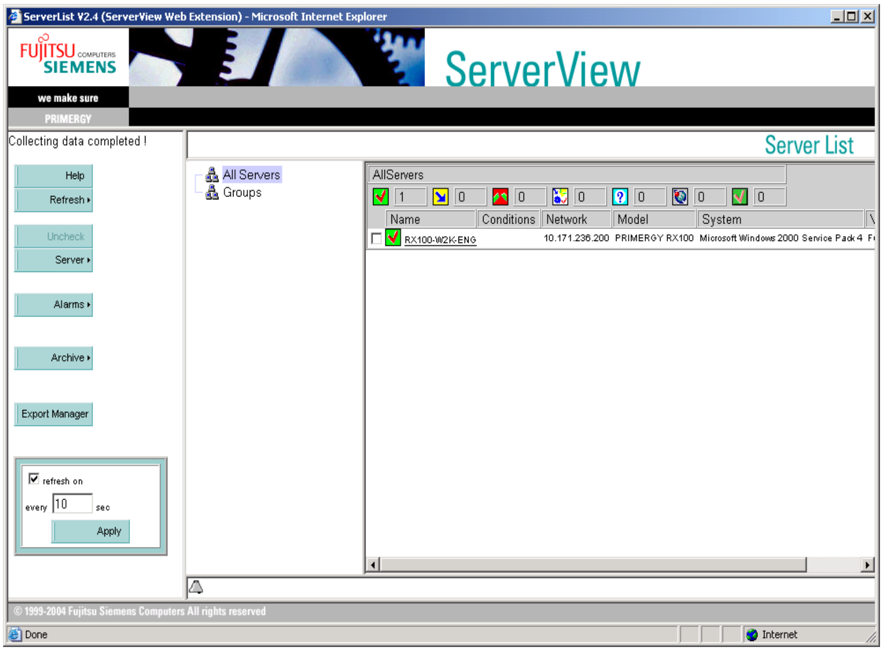
Internet

3 Click "Click here to start".

The [Server List] window is displayed.


ServerList V2.4 (ServerView Web Extension) - Microsoft Internet Explorer
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Server List
Help
Refresh
Uncheck
Server
Alarms
Archive
Export Manager
Apply
All Servers
Groups
© 1999-2004 Fujitsu Siemens Computers All rights reserved
Done
Internet

Collecting data completed !

☑ refresh on

every 10 sec

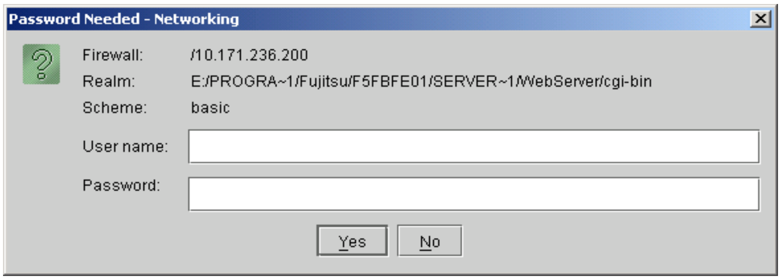
AllServers

✓ 1 | 0 | 0 | 0 | ? 0 | 0 | ✓ 0

	Name	Conditions	Network	Model	System
□	✓ RX100-W2K-ENG		10.171.236.200	PRIMERGY RX100	Microsoft Windows 2000 Service Pack 4

When the user name and password are requested

When ServerView Web-Server is selected in installation, the system may request to enter the user name and password as follows:



Password Needed - Networking

Firewall: /10.171.236.200

Realm: E:/PROGRA~1/Fujitsu/F5FBFE01/SERVER~1/WebServer/cgi-bin

Scheme: basic

User name:

Password:

For details about the user name and password, refer to the point column in "3.6.1 Starting ServerView WebExtension" (→pg.141).

■ Displaying the Server status [ServerView WebExtension]

ServerView WebExtension displays the server status in the following icons.

table: State Display for Servers in ServerView WebExtension

Icon	Meaning
✓	All components operate properly.
✕	Errors occur in one or more components.
↘	The status for one or more components deteriorates.
⚙	Status of components is not determined. It is uncontrollable.
➡	The server status is under examination.
?	Server is inaccessible.
⚙	The server is uncontrollable while the RSB agent is available.
🌐	ASM Pro Station is responding.
✓	ServerView Agent does not respond. Standard - SNMP is responding.

■ Menu List

The functions of ServerView WebExtension is used from the following menu.

table: Functions of ServerView WebExtension

Menu Item		Description
Help		Displays help topics.
Update		
	DB	Server status is updated based on the status value stored in the Web server database.
	Online	Immediately updates server status.
Uncheck		Clears the checkbox in the server.
Server		
	Copy to Group	The selected server in the [Server List] window can be copied to the group selected from a group tree.
	Remove from Group	The selected server can be deleted from the group tree in the [Server List] window. [Note] When the selected group is "All Servers" group, the server is also deleted from the server list database.
	Move to Group	A server can be moved to the selected group in the group tree the [Server List] window.
	New	Adds the server to monitor. If you click [Test Connection], you can verify the connection to the server.
	Edit	The properties of the selected server are displayed. Each item can be specified.
	Remove	Removes the selected server from the server list.
	Convert	When ServerView Console is installed, the server list information can be obtained from the ServerView management console. However to use this function, ServerView WebExtension must run on the Microsoft Windows platform.
Alarm		
	Service	Starts Alarm Service.
	Accept	Accepts the alarm that has not been accepted in a server.
	Accept All	Accepts all the alarms that have not been accepted.
Archive		The directories where archive data is stored are as follows: • Windows When the Web server is ServerView Web-Server System drive:\Program Files\Fujitsu\F5fbfe01\ServerView Services\wwwroot\ServerView\Archive\server name\ When the Web server is IIS System Drive:\Inetpub\wwwroot\ServerView\Archive\server name\ • Linux /var/www/html/ServerView/Archive/server name/ This function is available for WebExtension V2.4 or later. For the prior version, the menu does not appear.
	Remove	Deletes archive data in the selected server.
	Manager	Opens the archive manager window. This function is available for Linux WebExtension V2.45 or later. For the prior version, this is unavailable. The menu is represented in gray.
	Obtain Now	Starts to obtain archive data in the selected server.
Export Manager		Starts the export manager. For this procedure, refer to "3.5.2 Export Manager" (→pg.136).

table: Functions of ServerView WebExtension

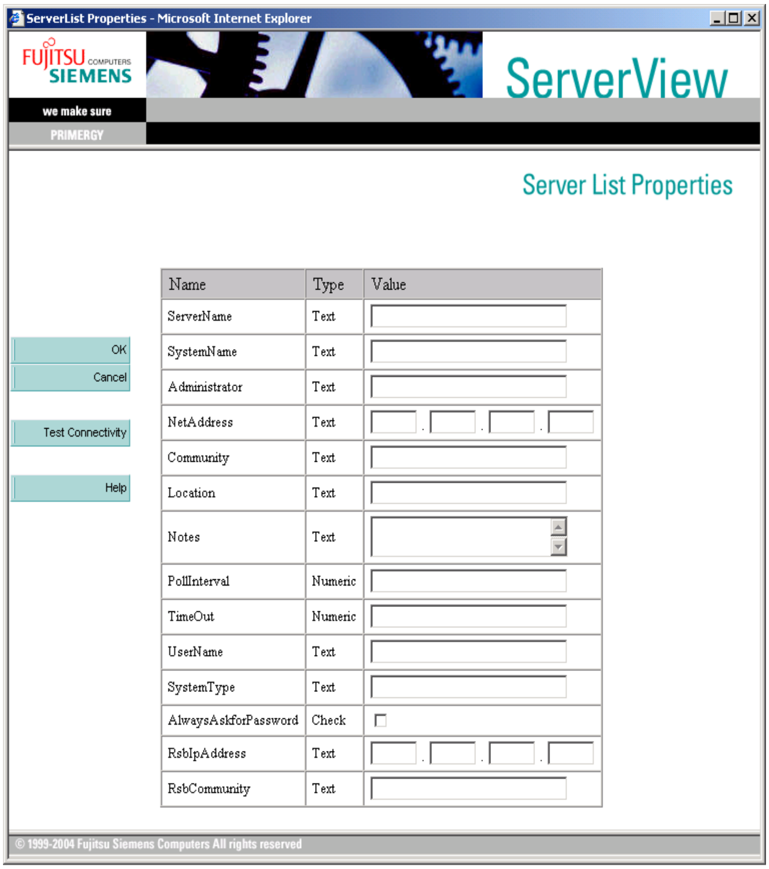
Menu Item	Description
[Update] Checkbox	When the checkbox is selected, the server list is updated every "n" seconds according to the value under the checkbox. To change the value, click [Apply] after specifying a value. By default the list is updated every 10 seconds.

3.6.2 Adding the Monitored Server

Specify a server on your network as a monitored object.

1 Click [Server] → [New].

The [ServerList Properties] window appears.


ServerList Properties - Microsoft Internet Explorer
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
Server List Properties
OK
Cancel
Test Connectivity
Help
© 1999-2004 Fujitsu Siemens Computers All rights reserved

Name	Type	Value
ServerName	Text	
SystemName	Text	
Administrator	Text	
NetAddress	Text	. . .
Community	Text	
Location	Text	
Notes	Text	
PollInterval	Numeric	
TimeOut	Numeric	
UserName	Text	
SystemType	Text	
AlwaysAskforPassword	Check	□
RsbIpAddress	Text	. . .
RsbCommunity	Text	

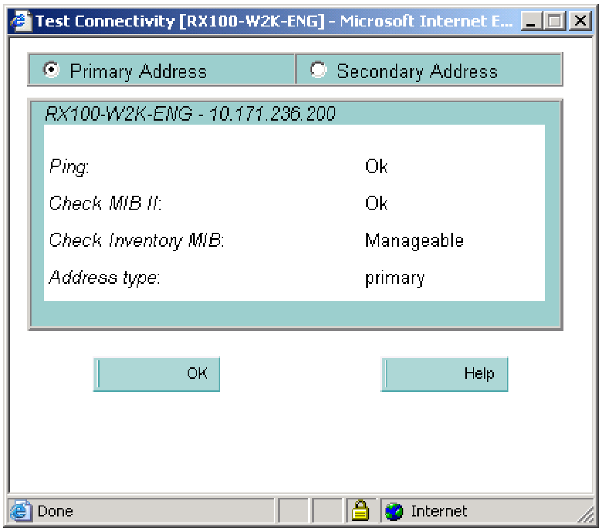
2 Enter the value for the monitored server in [ServerName] or [NetAddress].

IMPORTANT

- The following items cannot be changed.
  •SystemName
  •Administrator
  •Location
  •SystemType

3 Click [Test Connectivity].

The [Connection Test Results] window is displayed to display the results of connection test. Information for the target server is also displayed in each item field within the [ServerList Properties] window.



RX100-W2K-ENG - 10.171.236.200

Ping:	Ok
Check MIB II:	Ok
Check Inventory MIB:	Manageable
Address type:	primary

4 Click [OK].

The [ServerList Properties] window appears again.

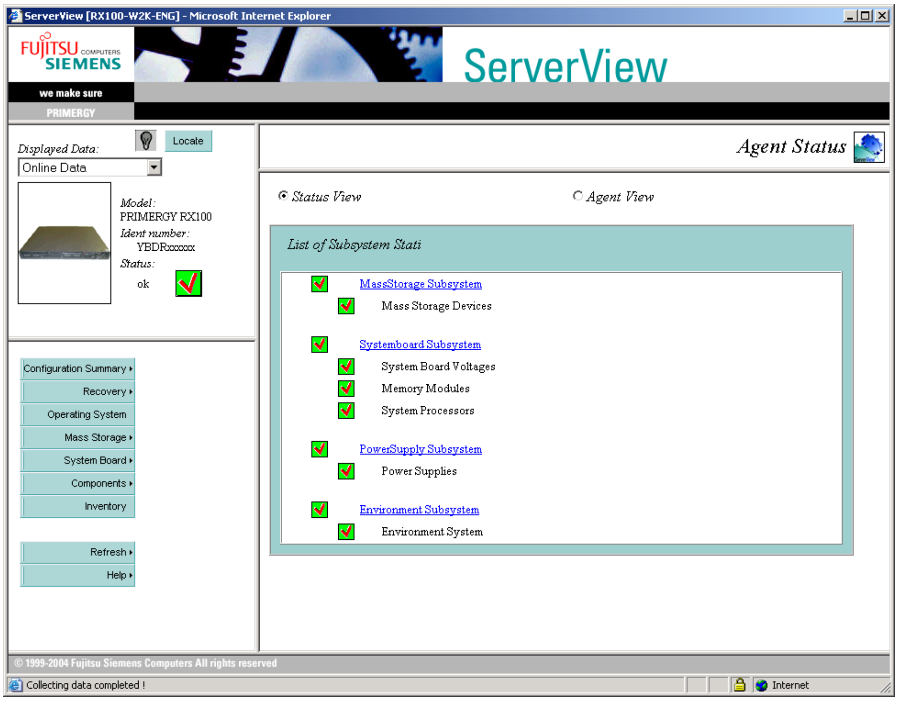
5 Click [OK].

The server is added to the [Server List] window.

3.6.3 Monitoring Hardware

1 Click the server in which you want to verify hardware status.

The [ServerView] window appears.



Displayed Data: Online Data

Model: PRIMERGY RX100

Ident number: YBDRxxxxxx

Status: ok ✓

● Status View ○ Agent View

List of Subsystem Stati

- ✓ MassStorage Subsystem
  - ✓ Mass Storage Devices
- ✓ Systemboard Subsystem
  - ✓ System Board Voltages
  - ✓ Memory Modules
  - ✓ System Processors
- ✓ PowerSupply Subsystem
  - ✓ Power Supplies
- ✓ Environment Subsystem
  - ✓ Environment System

Collecting data completed !

Information for each item is same as [ServerView] of the management console. For more details, refer to "3.3.3 Monitoring Hardware" (→pg.110).

IMPORTANT

- The [Identification LED] button and [DisplayedData] is enabled only for WebExtension V2.40 or later. For the prior version, they do not appear.

3.6.4 Using Alarm Service

■ Accepting Alarms

When an alarm reception icon is displayed in the [Status] field, some alarms are sent from ServerView. Accept the alarm as follows:

1 Select the server in which alarms are accepted and then click the [Alarm] menu →[Accept].

The alarm reception icon disappears in the [Status] field.

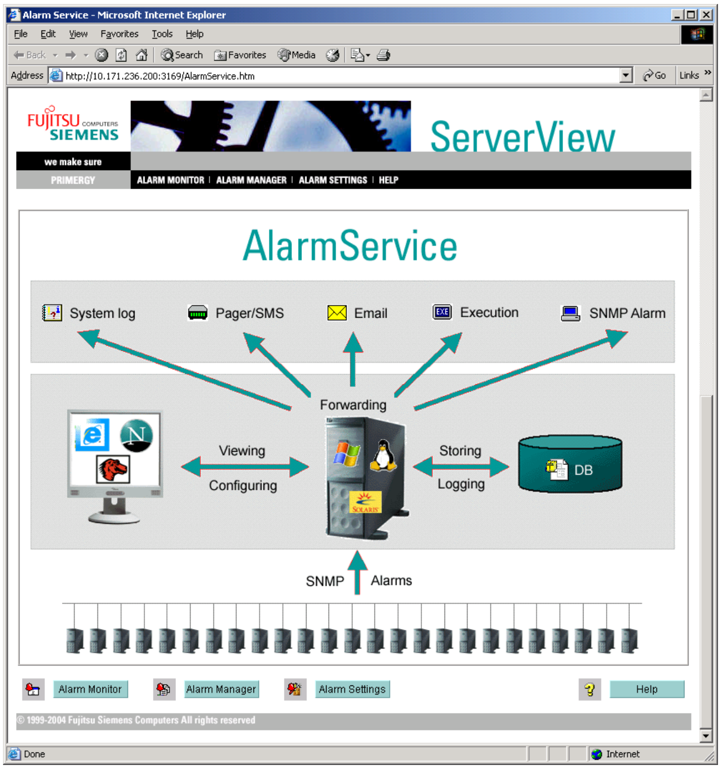
POINT

- To accept all the alarms collectively, click the [Alarm] menu → [Accept All].

■ Specifying/Displaying/Editing Alarms

1 Click [Alarm] → [Service].

Alarm Service starts.


Alarm Service - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://10.171.236.200:3169/AlarmService.htm
Go Links
FUJITSU COMPUTERS SIEMENS
we make sure
PRIMERGY
ServerView
ALARM MONITOR | ALARM MANAGER | ALARM SETTINGS | HELP
AlarmService
System log
Pager/SMS
Email
Execution
SNMP Alarm
Forwarding
Viewing
Configuring
Storing
Logging
DB
SNMP
Alarms
Alarm Monitor
Alarm Manager
Alarm Settings
Help
© 1999-2004 Fujitsu Siemens Computers All rights reserved
Done
Internet

● Specify Alarms

1 Click [Alarm Settings].

For this procedure, refer to "3.2.1 Alarm Settings" (→pg.81).

● Display All Received Alarms

1 Click [Alarm Monitor].

For this procedure, refer to "■ Displaying All the Received Alarms - [Alarm Monitor]" (→pg.105).

● Edit/Manage Alarms

1 Click [Alarm Manager].

For this procedure, refer to "■ Editing/Managing Alarms - [Alarm Manager]" (→pg.107).

3.7 [Linux] How to Use ServerView Linux

This section describes how to use ServerView Linux (Agent/ServerView WebExtension/AlarmService).

■ Displaying the ServerView Linux Agent Status

When you want to know status for the ServerView Linux agent, login as super user and execute the following command (an output result is shown).

```
# /etc/rc.d/init.d/srvmagt status
Running agents: sc bus hd mylex unix ether bios secur status inv vv
# /etc/rc.d/init.d/eecd status
eecd (pid 2085 2084 2059 1980 1979 1978 1977 1976 1975 1974 1973 1972
1971 1967 1965 1964 1963 1962) is running...
```

■ Starting and Exiting the ServerView Linux Agent

The ServerView Linux agent is automatically started at the server boot.
When you want to stop the ServerView Linux agent, login as super user and execute the following command (an output result is shown).

```
# /etc/rc.d/init.d/srvmagt stop
Stopping agent scagt      [ OK ]
Stopping agent busagt     [ OK ]
Stopping agent hdagt      [ OK ]
Stopping agent mylexagt   [ OK ]
Stopping agent unixagt    [ OK ]
Stopping agent etheragt   [ OK ]
Stopping agent biosagt    [ OK ]
Stopping agent securagt   [ OK ]
Stopping agent statusagt  [ OK ]
Stopping agent invagt     [ OK ]
Stopping agent vvagt      [ OK ]
# /etc/rc.d/init.d/eecd stop
Shutting down eecd: TERM [ OK ]
```

IMPORTANT

- To start the ServerView Linux agent, login as super user and execute the following command.
  # /etc/rc.d/init.d/eecd start
  # /etc/rc.d/init.d/srvmagt start
- When you cannot start /etc/rc.d/init.d/srvmagt, execute the following command to verify status of the SNMP service. If the SNMP service stops, start it.
  # /etc/rc.d/init.d/snmpd status
  # /etc/rc.d/init.d/snmpd start

■ How to Operate ServerView WebExtension/AlarmService

Connect to the < server > where ServerView WebExtension was installed using a browser as follows.
http://<server IP address >/sv_www.html
http://<server name >/sv_www.html
For the operation procedures of ServerView WebExtension, refer to "3.6 How to Use ServerView WebExtension" (→pg.141). For the operation procedures of AlarmService, refer to "3.3.2 Accepting/Reviewing/Editing Alarms" (→pg.104).

● ServerView WebExtension/AlarmService

When a Linux only environment is established, ServerView WebExtension/AlarmService can monitor status of the other servers by installing it in any one server.

POINT

- Starting/exiting ServerView WebExtension/AlarmService
  ServerView WebExtension/AlarmService, which operates as httpd service, cannot start/exit separately.
- Verifying operations of the installed ServerView WebExtension/AlarmService
  It is possible to verify the installed ServerView WebExtension/AlarmService status by executing the following command:
  # /etc/rc.d/init.d/sv_fwdserver status
  snmptrapd (pid xxxx) is running...

■ Logs of the ServerView Linux Agent

The log created while the ServerView Linux agent runs is stored in /var/log with a name of log.xxxx. However note that these logs are cleared when the ServerView Linux agent is restarted.
A log example is shown below.

```
-rw-r--r-- 1 root root 194 8 Œ  23 13:25 /var/log/log.biosagt
-rw-r--r-- 1 root root 193 8 Œ  23 13:25 /var/log/log.busagt
-rw-r--r-- 1 root root 30 8 Œ  23 13:25 /var/log/log.eecd
-rw-r--r-- 1 root root 195 8 Œ  23 13:25 /var/log/log.etheragt
-rw-r--r-- 1 root root 191 8 Œ  23 13:25 /var/log/log.hdagt
-rw-r--r-- 1 root root 193 8 Œ  23 13:25 /var/log/log.invagt
-rw-r--r-- 1 root root 268 8 Œ  23 13:25 /var/log/log.mylexagt
-rw-r--r-- 1 root root 257 8 Œ  23 13:25 /var/log/log.scagt
-rw-r--r-- 1 root root 194 8 Œ  23 13:25 /var/log/log.securagt
-rw-r--r-- 1 root root 195 8 Œ  23 13:25 /var/log/log.statusagt
-rw-r--r-- 1 root root 193 8 Œ  23 13:25 /var/log/log.unixagt
-rw-r--r-- 1 root root 280 8 Œ  23 13:26 /var/log/log.vvagt
```

Chapter 4

Using RemoteControlService

This chapter explains how to use RemoteControlService.

4.1 Overview of RemoteControlService

RemoteControlService is a software that remotely controls the PRIMERGY server. This section describes the functions of RemoteControlService and its system requirements.

■ RemoteControlService

RemoteControlService gives access to the server's system boot phase (POST) for remotely control from administration terminal. This helps to set up the server's BIOS from the administration terminal and start MS-DOS to run certain programs in the server from a MS-DOS floppy disk loaded in the terminal.

■ Components of RemoteControlService

RemoteControlService consists of the following two components on the server side and administration terminal side.

● RomPilot, RemoteConsoleManager (RCM), IPMI

RomPilot, RCM, and IPMI are components of the server side.

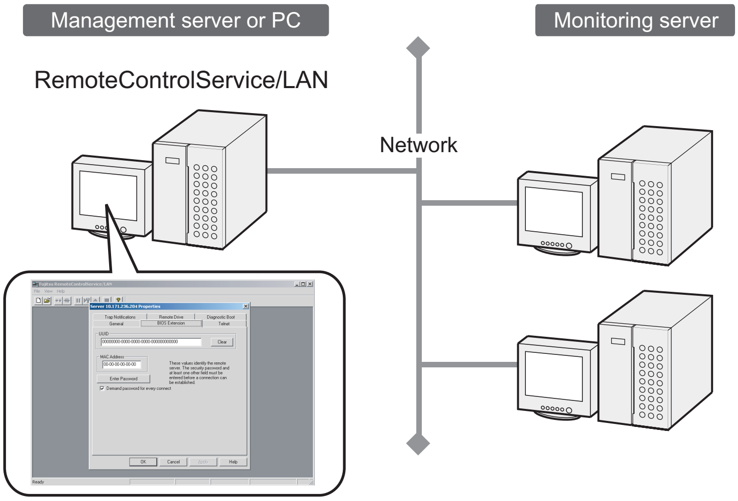
- RomPilot, RCM
  These are the server's advanced BIOS functions that support a LAN driver at POST in servers. RomPilot and RCM give access to server at POST through LAN. When the server has an onboard LAN, the server is regularly equipped with the onboard LAN driver.
- IPMI
  This is the server's BMC function that provides reset, power OFF/ON, console redirection in text modes and so on.

Supported components depend on machine type.

- RomPilot
  PRIMERGY B225/PRIMERGY C150/PRIMERGY C200/PRIMERGY F200/PRIMERGY F250/PRIMERGY H200/PRIMERGY H250/PRIMERGY H450/PRIMERGY L200/PRIMERGY N400/PRIMERGY N800/PRIMERGY P200/PRIMERGY P250/PRIMERGY R450/PRIMERGY L100
- RCM
  PRIMERGY L100
- IPMI
  PRIMERGY RX100/PRIMERGY TX150/PRIMERGY TX200/PRIMERGY RX200/PRIMERGY RX300/PRIMERGY TX150 S2/PRIMERGY RX100 S2/
  PRIMERGY RX200 S2/PRIMERGY RX300 S2/PRIMERGY TX200 S2

● RemoteControlService/LAN

This software that remotely controls the server is installed in an administration terminal.



UUID: 00000000-0000-0000-0000-000000000000

MAC Address: 00-00-00-00-00-00

These values identify the remote server. The security password and at least one other field must be entered before a connection can be established.

☑ Demand password for every connect

POINT

- For the support of blade servers, refer to "PRIMERGY BX600 Hardware Guide (Management Blades)".

4.1.1 Functions

RemoteControlService includes the following functions:

- Remote Drive
- Console Redirection
- Wakeup On LAN (WOL)
- Support of Remote Service Board

● Remote Drive

This provides the function that starts MS-DOS in servers from a floppy disk or an image file loaded in the administration terminal. However this function is available only in the server that supports RomPilot/RCM.

● Console Redirection

This provides the function that remotely controls server's window display, keyboard operations, or restart from the administration terminal at POST phase in the server. When the server's MS-DOS is started using a remote drive, remote control is enabled while MS-DOS is operating.

● Wakeup On LAN (WOL)

When a network adapter supports WOL in a server, the server can be powered on from the administration terminal through LAN. For details of the server's WOL function, refer to "User’s Guide".

● Support of Remote Service Board/Remote Service Controller

When a remote service board is installed in a server, the server's window display, keyboard operations (only in text modes) and power on/off are enabled through LAN or WAN. Further more the server that has an onboard remote service controller can run this operation basically.

When a remote service board is installed in disk array devices, power on/off and state display are enabled through LAN or WAN for them.

4.1.2 System Requirements

System requirements for servers and administration terminals are as follows.

■ Server

table: System Requirements for Servers

Hardware	Software
LAN card: required (when an onboard LAN is installed, it is only available)	No particular conditions

■ Administration Terminal

table: System Requirements for Administration Terminals

Hardware	Software
• PC: IBM PC compatible • Processor: Pentium or higher • Memory: 32MB or more • Hard disk: 256MB or more free disk space • Display: SVGA (800 x 600) or higher resolution • LAN card: required (onboard LANs are also available) • Mouse: required	• OS - Windows 2003 - Microsoft Windows XP professional Operating System - Microsoft Windows 2000 Professional Operating System ServicePack1 or later - Microsoft Windows NT Workstation Network Operating System Version 4.0 ServicePack 6a or later • Protocol: TCP/IP is required to run • Service: SNMP is required to run.

4.1.3 Notes

■ PRIMERGY ECONEL 30

RemoteControlService/LAN does not support the remote control function in PRIMERGY ECONEL 30.

■ RomPilot

The RomPilot function depends on machine type. The RomPilot function is not available in the server that does not support RomPilot in the advanced BIOS function. For support of this function, refer to "User’s Guide".

■ Wakeup On LAN (WOL)

RemoteControlService/LAN provides the WOL function for the servers in the same segment as the administration terminal. The WOL function cannot operate for the servers in the different segments through routers.
For this reason, install RemoteControlService/LAN in an administration terminal within the same segment as the server which you want to run the WOL function.

■ RemoteConsoleManager (RCM)

The RCM depends on machine type. The RCM is not available in the server that does not support RCM in the advanced BIOS function. For support of this function, refer to "User’s Guide".

● Notes for Use

Please take note of the following points when you use RCM.

- The RCM remote console window does not support the pause button (⏸) in the tool bar.
- When the cold reset (disable RCM) or the cold boot (disable RCM) is executed, the console redirection turns enabled in the following way:
  1. Start RemoteControlService.
  2. Start OS in the target server.
  3. Start ServerView.
  4. Click [ServerView] → [Action] and select [Start Diagnosis System] from [Restart Options] in the [Actions] window.
  5. Click [Restart].
     The target server will shut down and reboot.
     It may try to perform Console Redirection during server bootup.
  6. Start Console Redirection using RemoteControlService.
  7. Start the BIOS Setup Utility.
     The Setup utility can be started with the [F2] key.
  8. Set [Console Redirection] to "Enabled" in the [Console Redirection] menu within the Setup utility.
  9. Set [Next Boot Use] to "Boot Selection" in the [IPMI Configuration] menu within the Setup utility.
  10. Exit the Setup utility.

■ Intelligent Platform Management Interface (IPMI)

The IPMI function depends on machine type. For support of this function, refer to "User’s Guide".

● Notes for TX200/RX300 (common information)

- To connect to TX200/RX300 IPMI in RemoteControleService/LAN on your administration terminal, use "the unique address in the network that is different from the one specified for this server's OS" as "IP address for a server".
- The BMC version can be verified in the BIOS Setup window by pressing the [F1] key. It is displayed as follows:
  - "BMC_FW 1.x" example: BMC Firmware   : 001.0013b

- "BMC_FW 2.x" example: BMC Firmware : 002.0008b

Notes for PRIMERGY TX200/RX300 (BMC_FW 1.x)

- Execute "● Storing the Server Password" (→pg.178)to specify the password in connection. Use any user ID.
- When [Save Server Password] is disabled, check the [Advanced BIOS Function (Server)] to on and execute [Save Server Password]. Then uncheck [Advanced BIOS Function (Server)].
- The console direction with RX200/RX300 IPMI is not supported.
- The IPMI connection may be unstable immediately after power control or reset is performed in TX200/RX300. It recovers in dozens of seconds.
- For RX300, the IPMI connection and power operation are not supported while OS operates.

Notes for PRIMERGY TX200/RX300 (BMC_FW 2.x)

- Use the user name and password specified in Server Management Tools as the password when connecting.
- If OS hangs up in TX200/RX300, do not use [PowerCycle]. When you want to run [PowerCycle], set [P-On] after executing [immediate power off].
- When you want to send the [Esc] key to the server side during the console redirection, it is necessary to press the [Esc] key twice on the administration terminal side.

Notes for PRIMERGY RX200

- When the console redirection is executed with RX200 IPMI, it is necessary to install the "QLogic RMCP Filter" on the administration terminal side.
- For the information about how to install and use "Qlogic RMCP Filter", refer to "Fujitsu RemoteControleService Hints".
- When performing the console redirection with RX200 IPMI, make sure to use IPMI for the server's power control.
- To run BIOS Setup in the console redirection, press the [F4] key while the following message appears:

```
F2>BIOSsetup
```

Notes for PRIMERGY RX200 S2

A console redirection may not start after logging in to the console redirection with IPMI in PRIMERGY RX200 S2.

In this case, press the [Esc] + [Shift] + [8] key, the [Esc] + [q] key, and the [Enter] key while logged in. As the link is disconnected, log in again.

Notes for Selection of IPMI Machine Type Names

For [Server Properties] of the version prior to RemoteControleService/LAN V3.13.02, menu items correspond to machine type names as follows. No menu items are supported except for the items below.

table: Correspondence of Menu Items to Machine Type Names in [Server Properties]

Machine Type Name	BMC Version	Corresponding Menu Item
PRIMERGY L100E		RX100
PRIMERGY RX100		RX100
PRIMERGY TX100		TX150
PRIMERGY TX200	1.xxxx	TX200 (BMC_FW 1.x)
PRIMERGY TX200	2.xxxx	TX200 (BMC_FW 2.x)
PRIMERGY RX200		RX200 (BMC_FW 2.x)
PRIMERGY RX300	1.xxxx	RX300 (BMC_FW 1.x)
PRIMERGY RX300	2.xxxx	RX300 (BMC_FW 2.x)

For the RemoteControleService/LAN V3.13.02 or later, machine type names are selected automatically. It is not necessary to specify.

Notes for IPMI Connection

The following message may appear without connection when the IPMI connection is executed:

```
Service processor not reachable
```

In this case, connect it again. If the same message still appears after a few attempts, execute the following command in a command prompt of your administration terminal:
C:\>arp -s <connecting destination IP address> <connecting destination MAC address>
Example: C:\>arp -s 192.168.1.10 01-23-45-67-89-ab

Range of the Redirection through IPMI

The redirection through IPMI covers a range between the time after the end of BIOS memory checking and the time prior to the OS startup as well as a period of the DOS mode.
When the redirection is performed in the other server states, the window may be corrupted.

IPMI Connection between Different Segments

The IPMI connection can connect to any networks in different segments.
In this case, the port number 623 must be open to a target network.

4.2 Preparation

Set RomPilot, RCM, or IPMI and install RemoteControleService/LAN in preparation for the use of RemoteControleService.

4.2.1 Configuring RomPilot

To use the RomPilot function, it is necessary to configure RomPilot in the server.
Create the RomPilot setup disk to configure RomPilot and set up RomPilot according to the following procedure:

1 Prepare one formatted floppy disk.

2 Create the RomPilot setup disk.

Copy all the files in the following directory within the PRIMERGY Document & Tool CD to the floppy disk.

```
[CD-ROM drive]:\SVMANAGE\TOOLS\ROMPILOT\
```

3 Create a "floppy disk for starting the hardware configuration tool" or a "DOS floppy disk".

Use the ServerStart CD-ROM for creation. For the information about how to create the floppy disk, refer to "User’s Guide" supplied with the server.

4 Insert the "floppy disk for starting the hardware configuration tool" or "DOS floppy disk" to a floppy disk drive and power on the server.

5 The DOS prompt appears.
When a menu window appears, select the [Basic (BIOS Environment Support Tools)] and press the [Enter] key.

6 Insert the RomPilot setup disk created in Step 2 to the server.

7 Enter the following command and press the [Enter] key.

```
A:\>rompilot.bat
```

The RomPilot setup starts.

8 Select [[Enabled] Settings (1)] in the first line to enable the RomPilot function.

Unless [Enabled] is selected, the other settings are not enabled.

9 Specify the other items.

The meaning of each item is shown in the table below.

table: RomPilot Setting Item

Items	Description
Network Driver/Slot	For LAN connection, a network adapter and its driver are required. The slot indicates a slot number of the network adapter used in LAN connection. The network adapter supported by RemoteControleService is displayed by pressing the [F2] key. Select the desired adapter to install its driver from the RomPilot setup disk. [Note]: Do not use the [F2] key. The driver for an onboard LAN has been installed on a regular basis.
Driver Load String	The strings entered in this item are transferred to the LAN driver. When the LAN driver is loaded with the [F2] key, the default strings appear in this entry. [Note]: Do not use the [F2] key. The driver for an onboard LAN has been installed on a regular basis.
Server Name	This is the name by which a server is identified. The server name allows up to 16 ASCII characters. Special characters are also available.
Local IP Address	This is an IP address of the LAN adapter installed in the server. Numerals only are available. Use the same IP address as the OS used.
Subnet Mask	This is a subnet mask of the LAN adapter installed in the server. Numerals only are available. Use the same subnet mask as the OS used.
Gateway Address	This is a gateway address of the LAN adapter installed in the server. Numerals only are available. Use the same gateway address as the OS used.
Front End 0/1/2 IP	This is an IP address (up to three) of the administration terminal running RemoteControleService/LAN. RomPilot attempts to connect first to the Front End 0, secondly to the Front End 1, and finally to the Front End 2. When there are no entries in these [Front End] items, the connection to RomPilot is not allowed.
Second SNMP Port	RomPilot sends a SNMP trap to the TCP port 9162. When this port has been used by another application, the alternative port can be specified in this item. [Note]: To use RemoteControleService, set the TCP port "9162".
Reset on lost conn.	When the settings are enabled, RemoteControleService/LAN is connected. If this connection is lost, RomPilot resets the server automatically.
Connect Timeout	If two or three administration terminals are configured in the Front End 0/1/2, the item indicates the intervals at which RomPilot attempts to connect sequentially to the Front End 0/1/2. If connection is not established within the time, it attempts to connect to the next Front End.
Password	This is a server password. A password is displayed in an encrypted format. When you connect to your server through RemoteControleService/LAN, you must enter the password specified in this item. [Note]: Make sure to specify the password.
Confirm Password	Enter the server password again for confirmation.
<F1>	The online help topics are displayed for the RomPilot setup by pressing the [F1] key.

table: RomPilot Setting Item

Items	Description
<F2>	A submenu is displayed by pressing the [F2] key. This allows you to select another network adapter and its driver. [Note]: RomPilot supports only the onboard LAN. Do not specify slot numbers other than the onboad LAN.
<F3>	The current settings are stored by pressing the [F3] key.
<ESC>	Exit the setup menu without changes stored by pressing the [ESC] key.

POINT

- When the RomPilot function is enabled, RomPilot sends a SNMP trap to an administration terminal at server bootup. When ServerView is installed on the administration terminal, the received SNMP trap can be referred to using the ServerView Alarm Service. When the administration terminal starts RemoteControleService/LAN and receives the SNMP trap from RomPilot, a remote window is opened automatically for the server.

10 Press the [F3] key to store the settings.

POINT

- The following message may be displayed when the settings of RomPilot is stored.

```
Network Driver/Slot inappropriate for detected
adapter(s): Select via <F2>
```

In this case, perform the following procedure:

1. Press the [F2] key to display the [Select Network Driver] menu.
2. Select [Onboard].
3. Press the [Enter] key to specify [Driver].
4. Press the [F3] key to store the settings.
5. Press the [ESC] key to exit the RomPilot setup.

11 Press the [ESC] key to exit the RomPilot setup.

4.2.2 Configuration for RCM

To use RCM, it is necessary to set [Console Redirection] in the BIOS Setup menu. For this procedure, refer to "User’s Guide".
When setting RCM, please note the following points:

- Specify "Ethernet" for [Console Redirection] - [Connection over].
- Specify the same name as the server name of RemoteControleService/LAN in [Console Redirection] - [Server Name]. Inconsistency of server names causes failure in connection.
- Specify "Present" to [Console Redirection] - [Authorization password].

4.2.3 Configuration for IPMI

To use IPMI, it is necessary to set up in BIOS and Server Management Tools (IPMIview). Perform the following procedure. The setting procedure depends on machine type. For details, refer to "User’s Guide" for your server.

■ For PRIMERGY L100E/RX100/TX150

1 Start the BIOS Setup utility and set "Enabled" to the [ConsoleRedirection] item and "Ethernet" to the [Connection Over] item in the [Console Redirection] menu.

2 Select [User Management] from the [Server Management Tools] menu.

3 Specify the user name and password in [ID2] or under.

The user name and password specified in this item is necessary when connecting IPMI. However [ID1] is not available. Specify them in [ID2] or under.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select the ID specified in Step 3 and press the [F2] key in the [User Management] window.

7 Set "4" to [Privilege Limit] and "0" to the other items.

8 Press the [F1] key to store the settings.

9 Select [LAN Configuration] from the [Server Management Tools] menu.

10 Select [LAN Channel] and specify the following items.

table: LAN Channel Setting Item

Items	Settings
BMC NIC IP Address	Enter the IP address of the server side.
MAC Address	Enter the MAC address of the server side.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway	Enter the default gateway for the IP Address network.
MAC Address	Enter the MAC address of the default gateway.

■ For PRIMERGY TX200/RX300 (BMC_FW 1.x)

1 Start the BIOS Setup utility and configure [IPMI] in the [Advanced] menu as follows.

table: IPMI Setting Items

Items	Settings
ServerName	Enter a server name.
DHCP	Set "Disable".
LocalIP	Enter the unique IP address in the network that is different from the IP address specified in the server's OS.

table: IPMI Setting Items

Items	Settings
SubnetMask	Enter the subnet mask for the network.
GatewayAddress	Enter the IP address of the default gateway.
User ID 1 Password	Do not enter anything.

■ For PRIMERGY TX200/RX300 (BMC_FW 2.x)

1 Start the BIOS Setup utility and specify the following items.

Specify these items only for the console redirection. It is not necessary when using power control only.

table: Setting Items for BIOS Setup Utility

Items	Settings
[Server] - [Console Redirection]	
Console Redirect	Serial1
Baud Rate	115200
Media Type	LAN
Protocol	VT100+
Flow Control	None
Mode	Enhanced
[Advanced] - [Peripheral Configuration should]	
Serial 1	Enabled
Serial 1	3F8/COM1
Serial 1 Multiplexer	Shared

2 Select [User Management] from the [Server Management Tools] menu.
The following settings are also necessary when using power control only.

3 Specify the password for "Administrator" of [ID3].

The user name "Administrator" and its password specified in this item is necessary when connecting IPMI.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select [Channel Configuration] from the [Server Management Tools] menu.

7 Select "#2 802.3_LAN" from [Select Channel] and enter the following items.

table: IP Address Setting Items

Items	Settings
BMC NIC IP Address/MAC Address	The IPMI is available only for the onboard LAN port 1. This does not allow the MAC address to be modified. Use the unique IP address in the network that is different from the IP address in the server's OS.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway IP Address	Enter the default gateway for the network.
MAC Address	Enter the MAC address of the default gateway.

8 Press the [F1] key to store the settings.

■ For PRIMERGY RX200

● Settings on the Server Side

1 Start the BIOS Setup utility and specify the following items.

Specify these items only for the console redirection. It is not necessary when using power control only.

table: Setting Items for BIOS Setup Utility

Items	Settings
[Server] - [Console Redirection]	
Console Redirect	Serial1
Baud Rate	115200
Media Type	LAN
Protocol	VT100+
Flow Control	None
Mode	Enhanced
[Advanced] - [Peripheral Configuration should]	
Serial 1	3F8/COM1
Serial 1 Multiplexer	Shared

2 Select [User Management] from the [Server Management Tools] menu.

The following settings are also necessary when using power control only.

3 Specify the password for "Administrator" of [ID3].

The user name "Administrator" and its password specified in this item is necessary when connecting IPMI.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select [Channel Configuration] from the [Server Management Tools] menu.

7 Select "#2 802.3_LAN" from [Select Channel] and enter the following items.

table: IP Address Setting Items

Items	Settings
BMC NIC IP Address/MAC Address	The IPMI is available only for the onboard LAN port 1. This does not allow the MAC address to be modified. Enter the IP address assigned to the LAN port 1 in the server's OS.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway IP Address	Enter the default gateway for the network.
MAC Address	Enter the MAC address of the default gateway.

8 Press the [F1] key to store the settings.

● Settings on the Administration Terminal Side

The following steps are not necessary when using power control only. Perform them only when the console redirection through IPMI is used.

1 Install "QLogic RMCP Filter".

Refer to "Fujitsu RemoteControleService Hints".

2 Add the IP address of both BMC and the administration terminal to "QLogic RMCP Filter".

3 Reboot the administration terminal.

■ For PRIMERGY TX150 S2

● Settings on the Server Side

1 Start the BIOS Setup utility and specify the following items.

Specify these items only for the console redirection. This is not necessary when using power control only.

table: Setting Items for BIOS Setup Utility

Items	Settings
[Server] - [Remote Access Configuration]	
Remote Access	Enabled
Serial port number	COM1
Media Type	LAN
Baudrate	115200
Flow Control	None
Redirection After BIOS POST	Enhanced
Terminal Type	VT100
VT-UTF8 Combo Key Support	Disabled

table: Setting Items for BIOS Setup Utility

Items	Settings
[Advanced] - [Peripheral Configuration]	
Serial Port1 Address	3F8/IRQ4
Serial Multiplexer	Shared

2 Select [User Management] from the [Server Management Tools] menu.

The following settings are also necessary when using power control only.

3 Specify the password for "Administrator" of [ID3].

The user name "Administrator" and its password specified in this item is required when IPMI is connected.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select [Channel Configuration] from [Server Management Tools] menu.

7 Select "#2 802.3_LAN" from [Select Channel] and enter the following items.

table: IP Address Setting Items

Items	Settings
BMC NIC IP Address/MAC Address	The IPMI is available only for the onboard LAN port. This does not allow to modify the MAC address. Enter the IP address assigned in the server's OS.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway IP Address	Enter the default gateway for the network.
MAC Address	Enter the MAC address of the default gateway.

8 Press the [F1] key to store the settings.

● Settings on the Administration Terminal Side

The following steps are not necessary when using power control only. Perform them only when the console redirection through IPMI is used.

1 Install "QLogic RMCP Filter".

Refer to "Fujitsu RemoteControleService Hints".

2 Add the IP address of both BMC and the administration terminal to "QLogic RMCP Filter".

3 Reboot the administration terminal.

■ For PRIMERGY RX100 S2

● Settings on the Server Side

1 Start the BIOS Setup utility and specify the following items.

Specify these items only for the console redirection. It is not necessary when using power control only.

table: Setting Items for BIOS Setup Utility

Items	Settings
[Server] - [Console Redirection]	
Console Redirect Port	Enabled
Baudrate	115200
Media Type	LAN
Protocol	VT100+
Flow Control	None
Mode	Enhanced
VT-UTF8 Combo Key Support	Disabled
[Advanced] - [Peripheral Configuration]	
Serial 1	Enabled
Base I/O Address	3F8/IRQ4
Serial Multiplexer	Shared

2 Select [User Management] from the [Server Management Tools] menu.

The following settings are also necessary when using power control only.

3 Specify the password for "Administrator" of [ID3].

The user name "Administrator" and its password specified in this item is necessary when connecting IPMI.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select [Channel Configuration] from the [Server Management Tools] menu.

7 Select "#2 802.3_LAN" from [Select Channel] and enter the following items.

table: IP Address Setting Items

Items	Settings
BMC NIC IP Address/MAC Address	The IPMI is available only for the onboard LAN port. This does not allow the MAC address to be modified. Enter the IP address assigned in the server's OS.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway IP Address	Enter the default gateway for the network.
MAC Address	Enter the MAC address of the default gateway.

8 Press the [F1] key to store the settings.

● Settings on the Administration Terminal Side

The following steps are not necessary when using power control only. Perform them only when the console redirection through IPMI is used.

1 Install "QLogic RMCP Filter".
Refer to "Fujitsu RemoteControleService Hints".

2 Add the IP address of both BMC and the administration terminal to "QLogic RMCP Filter".

3 Reboot the administration terminal.

■ For PRIMERGY RX200 S2

● Settings on the Server Side

1 Start the BIOS Setup utility and specify the following items.
Specify these items only for the console redirection. It is not necessary when using power control only.

table: Setting Items for BIOS Setup Utility

Items	Settings
[Server] - [Console Redirection]	
Console Redirect Port	Enabled
Media Type	LAN
Baudrate	9800
Flow Control	None
Terminal Type	VT100+
Mode	Enhanced
[Advanced] - [Peripheral Configuration]	
Serial Port1 Address	3F8/IRQ4
Serial Multiplexer	Shared

2 Select [User Management] from the menu [Server Management Tools] menu.
The following settings are also necessary when using power control only.

3 Specify the password for "Administrator" of [ID3].
The user name "Administrator" and its password specified in this item is necessary when connecting IPMI.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select [Channel Configuration] from the [Server Management Tools] menu.

7 Select "#2 802.3_LAN" from [Select Channel] and enter the following items.

table: IP Address Setting Items

Items	Settings
BMC NIC IP Address/MAC Address	The IPMI is available only for the onboard LAN port. This does not allow the MAC address to be modified. Enter the IP address assigned in the server's OS.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway IP Address	Enter the default gateway for the network.
MAC Address	Enter the MAC address of the default gateway.

8 Press the [F1] key to store the settings.

● Settings on the Administration Terminal Side

The following steps are not necessary when using power control only. Perform them only when the console redirection through IPMI is used.

1 Install "QLogic RMCP Filter".

Refer to "Fujitsu RemoteControleService Hints".

2 Add the IP address of both BMC and the administration terminal to "QLogic RMCP Filter".

3 Reboot the administration terminal.

■ For PRIMERGY RX300 S2/TX200 S2

● Settings on the Server Side

1 Start the BIOS Setup utility and specify the following items.

Specify these items only for the console redirection. It is not necessary when using power control only.

table: Setting Items for BIOS Setup Utility

Items	Settings
[Server] - [Console Redirection]	
Console Redirect Port	Enabled
Media Type	LAN
Baudrate	9800
Flow Control	None
Terminal Type	VT100+
Mode	Enhanced

2 Select [User Management] from the [Server Management Tools] menu.

The following settings are also necessary when using power control only.

3 Specify the password for "Administrator" of [ID3].

The user name "Administrator" and its password specified in this item is necessary when connecting IPMI.

4 Select "1" (enable user) for [Operation].

5 Press the [F1] key to store the settings.

6 Select [Channel Configuration] from the [Server Management Tools] menu.

7 Select "#2 802.3_LAN" from [Select Channel] and enter the following items.

table: IP Address Setting Items

Items	Settings
BMC NIC IP Address/MAC Address	The IPMI is available only for the onboard LAN port. This does not allow the MAC address to be modified. Enter the unique IP address in the network that is different from the IP address assigned in the server's OS.
SubnetMask IP Address	Enter the subnet mask for the network.
Default Gateway IP Address	Enter the default gateway for the network.
MAC Address	Enter the MAC address of the default gateway.

8 Press the [F1] key to store the settings.

● Settings on the Administration Terminal Side

The following steps are not necessary when using power control only. Perform them only when the console redirection through IPMI is used.

1 Install "QLogic RMCP Filter".

Refer to "Fujitsu RemoteControleService Hints".

2 Add the IP address of both BMC and the administration terminal to "QLogic RMCP Filter".

3 Reboot the administration terminal.

4.2.4 Installing/Uninstalling RemoteControleService/LAN

This section describes how to install/uninstall RemoteControleService/LAN into an administration terminal.

■ Installing

1. Log in as the user name with administrator privileges or equal privileges.

2. Exit all running applications.

3. Start the following installer from the PRIMERGY Document & Tool CD:
   [CD-ROM drive]:\SVMANAGE\ENGLISH\RCS\RCSsetup.msi
   RemoteControleService/LAN will be installed.

■ Uninstallation

Use [Add/Remove Programs] in [Control Panel] when uninstalling RemoteControlService/LAN. Make sure to uninstall "QLogic RMCP Filter" first when "QLogic RMCP Filter" has been installed.

4.3 Starting and Exiting

This section describes how to start and exit RemoteControleService/LAN along with its menu.

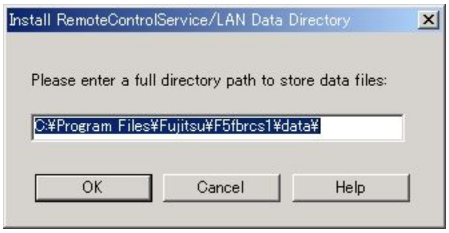
4.3.1 Starting

1 Click the [Start] button → [Programs] → [Fujitsu RemoteControlService] → [Fujitsu RemoteControlService LAN].

RemoteControleService/LAN is started.

POINT

- When RemoteControleService/LAN is started for the first time, the following window appears.



Install RemoteControlService/LAN Data Directory

Please enter a full directory path to store data files:

C:¥Program Files¥Fujitsu¥F5fbrcs1¥data¥

1 Enter the full pathname for the data directory and click [OK].

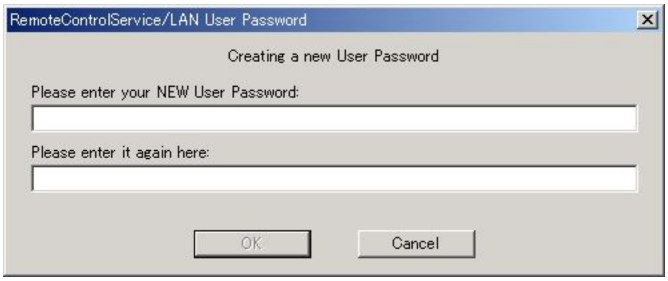
Data such as history files and message log files are stored in the data directory. The subdirectory<user name> is created in the data directory because data files are stored for each user who starts RemoteControlService/LAN.

A general path name for data directories is displayed as candidate. To change it, enter the full pathname.

If you click [Cancel], RemoteControlService/LAN will not be started.

2 Click [OK] when a message appears to confirm whether to create your password.

The [User Password] window appears.



RemoteControlService/LAN User Password

Creating a new User Password

Please enter your NEW User Password:

Please enter it again here:

3 After you enter the password and confirm it, click [OK].

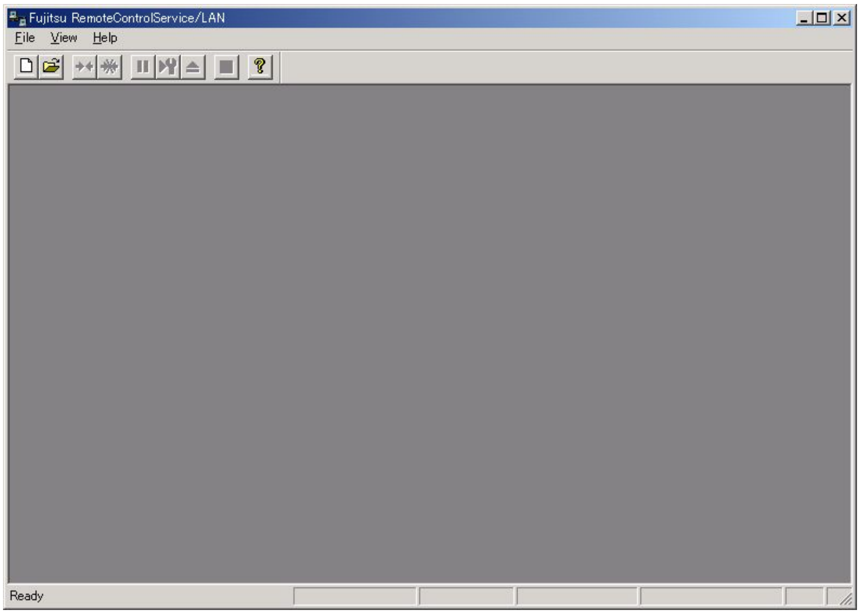
The user password for RemoteControlService/LAN is created and RemoteControlService/LAN is started.
If you click [Cancel], RemoteControlService/LAN will not be started.
For the information about how to change a user password for RemoteControlService/LAN, refer to "■ User Password" (→pg.177).

POINT

- When RemoteControlService/LAN is started, the message "Warning: The file size of history log is too large. Please delete old logs". may appear.
  In such a case, click [OK], enter the password, and then click the [View] menu → [History Log] to confirm the logs. When there are any unnecessary logs, it is recommended to delete those logs. However it is not necessary to delete logs when sufficient free space is left in the disk where the RemoteControlService data directory is located.

4.3.2 Menu List

The main window in RemoteControlService/LAN is displayed as follows.



This provides the connection to servers and the following control server tasks:

- Adding/removing servers
- Defining properties and default values for servers
- Connecting RemoteControlService/LAN to servers
- Options definition for server 's reboot and reset

● [File] Menu

table: File menu

Menu Item	Description
New	Specifies a new server name and IP address to be added.
Open	Selects the desired server from the server list for connecting.
Close	Disconnects the selected server. The remote console window is also closed.
Remove	Removes the server from the server list.
Properties	Specifies the server's properties (such as name, IP address, and device address).
Default	Defines the default value of the server's properties.
Settings	Specifies a data directory and user password.
Exit	Exits RemoteControlService/LAN and disconnects the server. When the server is being connected, a message appears to confirm whether to disconnect it.

● [View] Menu

table: View menu

Menu Item	Description
Tool Bar	Displays or hides the tool bar located at the top of the window.
Status Bar	Displays or hides the status bar located at the bottom of the window.
Object Summary	Displays the current status of all the servers in the server list.
History Log	Displays a history file in which all the actions are recorded.
Message Log	Displays a message file in which all the messages are recorded. When the Telnet window or the remote console window is open, this item does not appear.

● [Reset/Reboot] Menu

The [Reset/Reboot] menu is displayed only when the remote console window is active. Connect to any server and the menu item in the [Reset/Reboot] menu turn active.

table: Reset/Reboot Menu

Menu Item	Description
Cold Reset	Reboots the server.
Reset and Start Diagnosis System (Continue RomPilot)	Boots up the server from an IDE storage media using the RemoteControlService/Diagnosis system. [Note]: This function is not supported.
Next Reset Options	Defines the settings at the next system bootup. This item can also define the next reboot from a remote drive.
Wakeup	When a network adapter supports Wakeup On Lan (WOL) in a server, the server can be powered on from an administration terminal through LAN. For details of the server's WOL function, refer to "User’s Guide".
Suspend at Next Connection	Suspends BIOS POST at the next connection. To resume BIOS POST, select [Run (Unload RomPilot)].

● [Window] Menu

Select a server from the server list and the [Window] menu turns active.

table: Window menu

Menu Item	Description
Cascade	Cascades the open windows.
Tile	Tiles the open windows.
Arrange Icons	Arrange icons.
Close All	Closes all the open windows.

● [Help] Menu

table: Help menu

Menu Item	Description
Overview	Displays the overview of RemoteControleService/LAN.
New Functions	Displays the overview of new functions.
Search Topics	Searches the RemoteControleService/LAN help topics.
How to Use Help	Displays how to use help.
RemoteControlService/LAN Online Manual	Displays the online manual.
To Contact Fujitsu	Displays the contact address of Fujitsu.
About RemoteControlService/ LAN	Displays version information.

■ Pop-up Menu

Depending on the current server status, certain menu items may not be available.

table: Pop-up Menu

Menu Item	Description
RomPilot Remote Console Window	
Close	Closes the RomPilot remote console window.
Connect	Connects to the server.
Connect/Setup	Connects to the server and starts the BIOS Setup.
Disconnect	Disconnects the server. The remote console window remains open.
Wakeup	When a network adapter supports Wakeup On Lan (WOL) in a server, the server can be powered on from an administration terminal through LAN. For details of the server's WOL function, refer to "User’s Guide".
Change Disk Image	Changes a floppy/image file when a server is started from a remote drive.
Properties	Defines the desired server properties (such as name, IP address, and device address).
Run (Continue RomPilot)	When the server suspends at the POST stage through [Suspend POST] or [Suspend at Next Connection], it can be resumed by clicking [Run (Continue RomPilot)]. Use this function only when the server operates in the diagnosis mode. [Note]: The diagnosis mode is not supported.
Run (Unload RomPilot)	When the server suspends at the POST stage through [Suspend POST] or [Suspend at Next Connection], it can be resumed by clicking [Run (Continue RomPilot)].

table: Pop-up Menu

Menu Item	Description
Restore Last Window	The last remote console window reappears.
Erase	Erases the remote console window displayed with [Restore Last Window].
Change Colors	Changes a color palette in the remote console window.
Cold Reset	Reboots the server.
Reset and Start Diagnosis System (Continue RomPilot)	Boots up the server from an IDE storage media using the RemoteControlService/Diagnosis system. [Note]: This function is not supported.
Next Reset Options	Defines the settings at the next system restart. This item can also define the next restart from a remote drive.
Suspend at Next Connection	Suspends BIOS POST until the execute command is entered at the next connection setup.
RCM Window	
Close	Closes the RCM window.
Disconnect	Disconnects the server. The RCM window remains open.
Reconnect	Disconnects the server and reboots it.
Properties	Defines the desired server properties (such as name and IP address).
Restore Last Window	The last RCM window reappears.
Redraw	Redraws the RCM window.
Erase	Erases the RCM window.
Cold Reset	Reboots the server. The settings for Console Redirection are switched to "Disabled".
Power OFF	Power off the server.
Start BIOS Setup at Next Connection	Starts BIOS Setup at the next connection. This is not available along with [Reconnect].
Next Reset Options	Defines the settings at the next system reboot. This item can also define the reboot from a remote drive.
Help	Displays help topics.
Telnet Remote Manager Window	
Close	Closes the Telnet remote manager window.
Connect	Connects to the server.
Disconnect	Disconnects the server.
Sends Out Escape Sequence	Sends out an escape sequence to the server.
Properties	Defines the server properties.
Remote IPMI Manager Window	
Close	Closes the remote IPMI manager window.
Connect	Connects to the server.
Disconnect	Disconnects the server.
Erase	Erases the console redirection window.

4.3.3 Exiting

1 Click the [File] menu → [Close].

RemoteControleService/LAN exits.

4.4 How to Use

This section describes how to use RemoteControleService/LAN.
For details, refer to the corresponding online help.

4.4.1 Password Management

RemoteControleService provides the password protection function to prevent unauthorized remote access to your server. Two passwords, one each for a user and a server are required.

■ User Password

A user password is used for authentication when logging in to RemoteControleService/LAN.
To change the password specified at the first startup of RemoteControleService/LAN, follow the procedure below.

1 Click the [File] menu → [Settings] → [User Password].

2 Enter the old password and click [OK].

3 Enter a new password and click [OK].

POINT

- If you click [Cancel] without specifying any password at log in, you can enter a new password. However the server list is deleted.

■ Server Password

A server password is required to have access to the server's RomPilot/RCM using RemoteControleService/LAN.
The server password is specified for [Password] in the RomPilot setup or in the BIOS Setup menu of the server. For the RomPilot setup, refer to "4.2.1 Configuring RomPilot" (→pg.158).
The password is necessary each time connection is established and must be entered at the server's POST. The time of POST depends on the server hardware configuration.

● Disabling Password Prompt

If the server password prompt is disabled, it is not necessary to enter the server password when each connection is established.

IMPORTANT

- Disabling the password prompt causes a security risk. Understand fully the risk for specifying.

1 Click the [File] menu → [Properties].

The server list appears.

2 Select the server for which the password prompt is disabled.

When the server is connected, the properties for the server are displayed.

3 Click the [Advanced BIOS Function] tab.

4 Clear [Demand password for every connect].

● Storing the Server Password

The server password can be stored in RemoteControleService/LAN. When you store the server password and disable [Demand password for every connect], you can hide the password prompt at the connection to the server.

1 Click the [File] menu → [Properties].

The server list appears.

2 Select the server for which the password is stored.

When the server is connected, the properties for the server are displayed.

3 Click the [Advanced BIOS function] tab and click [Enter Password].

4 Enter a password and click [OK].

POINT

- The server password defined at the RomPilot setup is not changed.

4.4.2 Remote Server Management

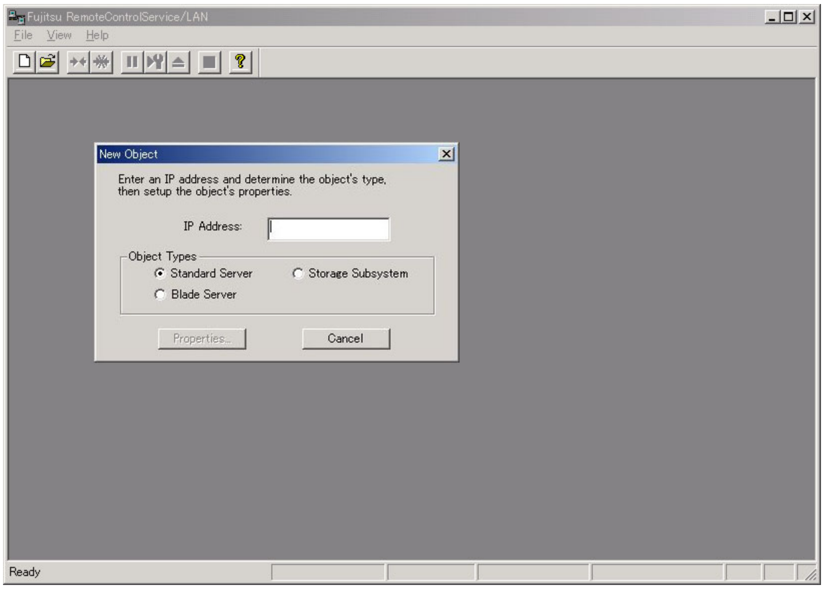
To manage the server remotely using RemoteControleService/LAN, connect to one of the server's RomPilot, RCM, IPMI, or remote service board (Telnet).

■ Adding a Server

To register a server in the server list:

1 Click the [File] menu → [New] or click 🗋 icon in the tool bar.

The following window appears.



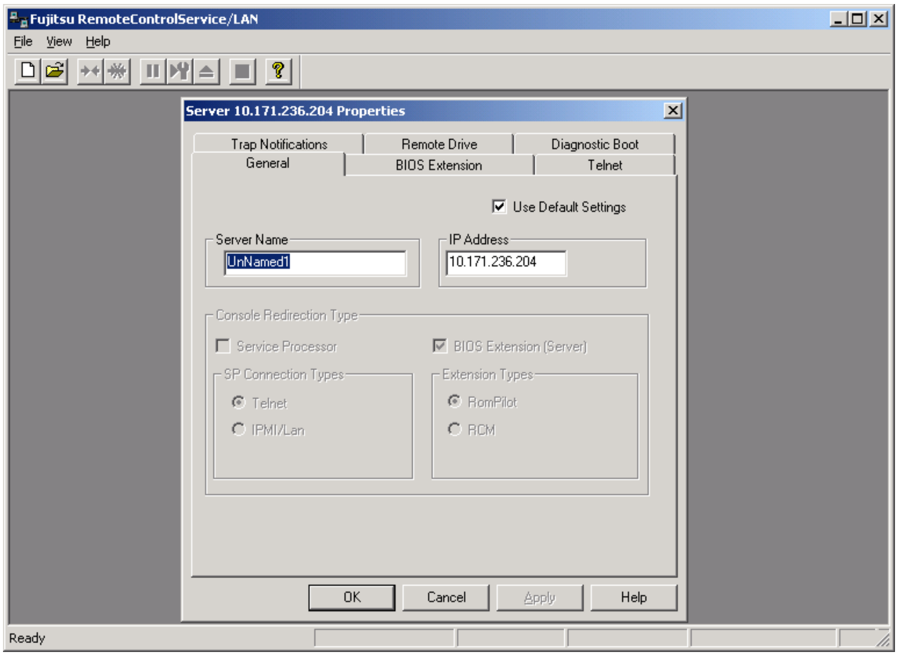
Enter an IP address and determine the object's type, then setup the object's properties.

IP Address:

Object Types
● Standard Server ○ Storage Subsystem
○ Blade Server

2 Enter the IP address for a new server, select the object's type (Standard Server/Blade Server/Storage Subsystem), and click [Properties].

The properties window for servers appears as follows.



☑ Use Default Settings

Server Name: UnNamed1

IP Address: 10.171.236.204

Console Redirection Type
□ Service Processor ☑ BIOS Extension (Server)

SP Connection Types
● Telnet
○ IPMI/Lan

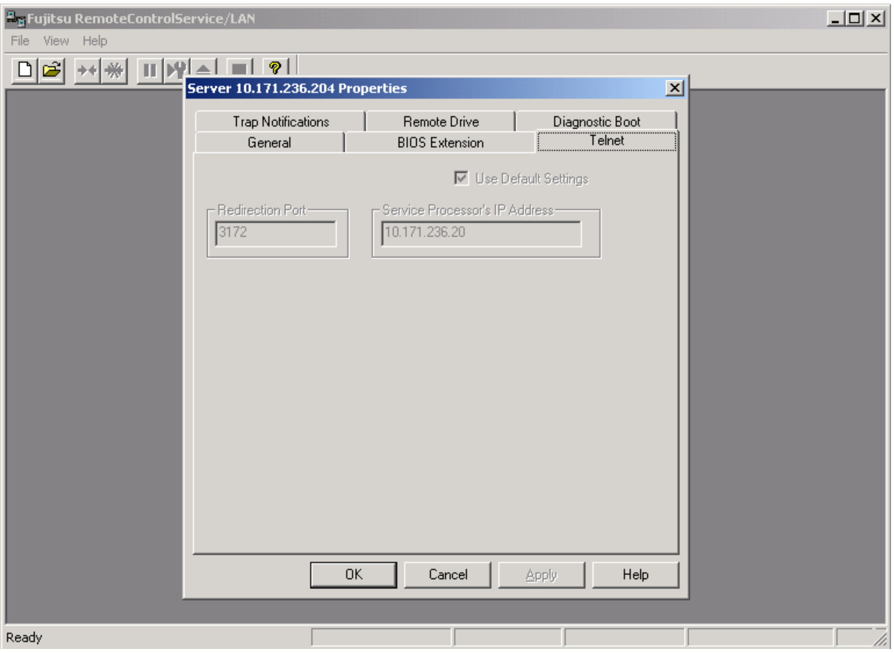
Extension Types
● RomPilot
○ RCM

3 Enter a server name in the [General] tab.

4 When a remote service board is installed in the server, clear [Use Default Settings] and select [Telnet].

5 Enter the IP address of the remote service board (for a blade server, the IP address of its management blade) for [Service Processor's IP address] in the [Telnet] tab and click [OK].

The following window illustrates a remote service board example.



Fujitsu RemoteControlService/LAN

Server 10.171.236.204 Properties

☑ Use Default Settings

Redirection Port: 3172

Service Processor's IP Address: 10.171.236.20

For a remote service board

As a redirection port, specify the port number assigned in [LAN Interface] - [Telnet Port] for the remote service board.

For a blade server

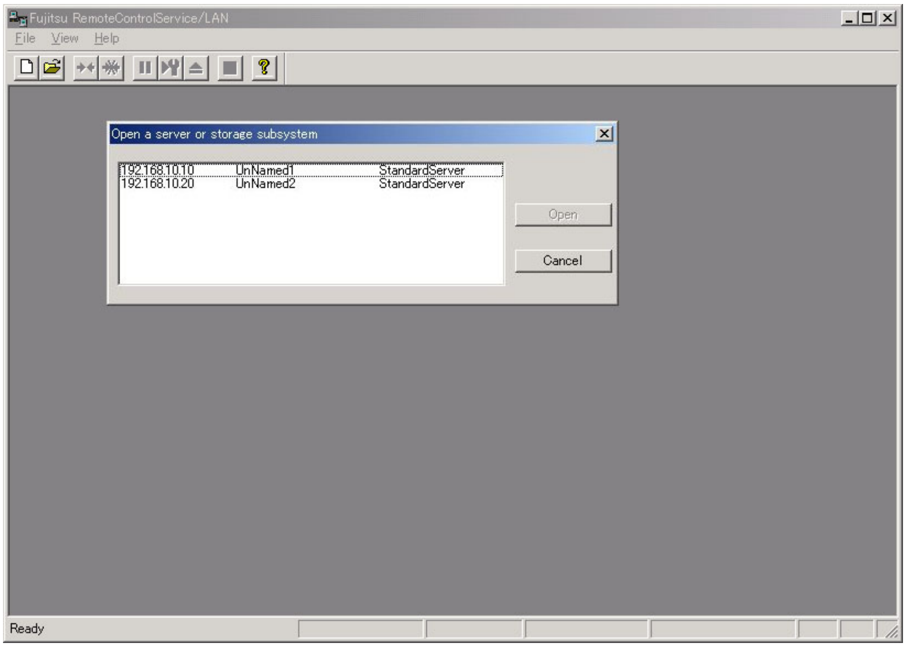
As a redirection port, specify the port number assigned for the management blade. The default value of a management blade is 3172.

POINT

- The default value of Telnet port number for the remote service board depends on its firmware version. The firmware version is displayed when the remote manager is connected:
  - 0.x.x.xx TelnetPort 2307
  - 1.x.x.xx TelnetPort 3172
  - 2.x.x.xx TelnetPort 3172

■ Open the Server's Remote Window

1 Click the [File] menu → [Open] or click 📂 icon in the tool bar.


Fujitsu RemoteControlService/LAN
File
View
Help
Open a server or storage subsystem
Open
Cancel
Ready

192.168.10.10	UnNamed1	StandardServer
192.168.10.20	UnNamed2	StandardServer

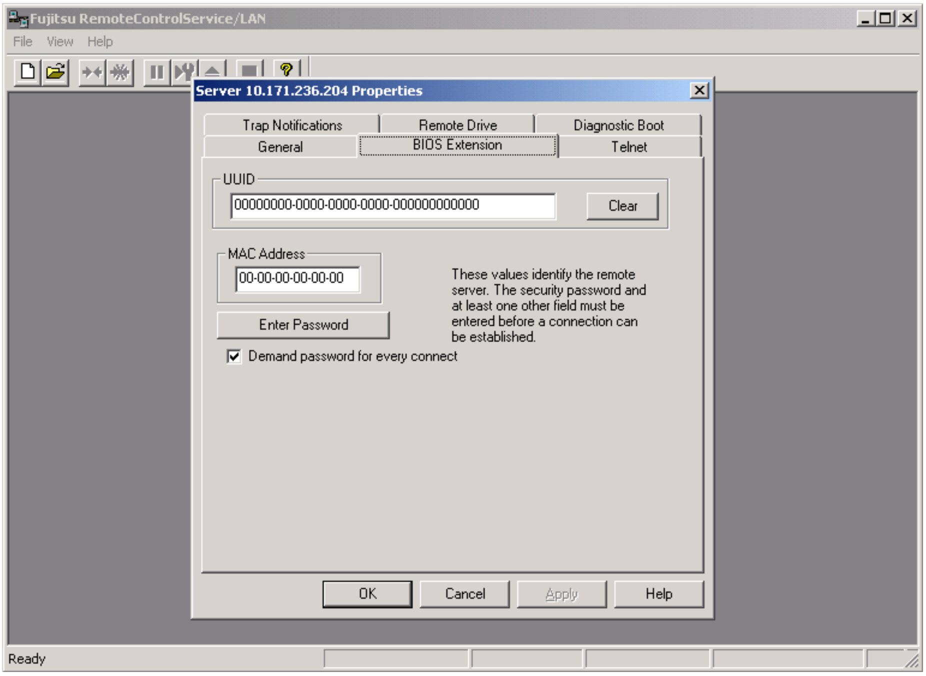
2 Select the desired server from the server list and click [Open].

The remote console window opens.

This server list displays all the server objects that the user has created.

POINT

- RemoteControleService provides connection to the server's RomPilot, RCM, remote service board (Telnet), and IPMI.
- For the connection to RomPilot
  Click the [File] menu → [Properties], select [BIOS Extension (Server)] in the [General] tab, and then select [RomPilot]. When the connection to RomPilot is established, values are entered automatically into [UUID] and [MAC address] in the [BIOS Extension] tab.



UUID: 00000000-0000-0000-0000-000000000000

MAC Address: 00-00-00-00-00-00

These values identify the remote server. The security password and at least one other field must be entered before a connection can be established.

☑ Demand password for every connect

- For the connection to RCM
  Click the [File] menu → [Properties], select [Bios Extension (SERVER)] in the [General] tab, and then select [RCM].
- For the connection to a remote service board (Telnet)
  Click the [File] menu → [Properties], clear [Use Default Settings] in the [General] tab, and then select [Telnet]. Enter the IP address of the remote service board for [Secondary IP address] in the [Telnet] tab.
- For the connection to IPMI
  Click the [File] menu → [Properties], clear [Use Default Settings] in the [General] tab, and then select [IPMI].

■ Connecting to a Server

The RomPilot remote console window or the RCM window appears when the server starts POST and transmits a SNMP trap.

● For the connection to a remote service board

1 Right-click in the remote window and click [Connect] in the pop-up menu or click →← icon in the tool bar.

When connecting to a remote service board, enter a user account for the remote service board. For more details, refer to "4.4.5 Support of the Remote Service Board (PG-RSB103)" (→pg.187).

● For the connection to RomPilot

1 You can also start the BIOS Setup by clicking [Connect/Setup].

Enter a server password when connecting to RomPilot/RCM.

■ Disconnect a Server

1 Right-click and click [Disconnect] in the pop-up menu or click →← icon in the tool bar.

The server is disconnected. However the window remains open.

4.4.3 BIOS Setup

This section describes how to start the server's BIOS Setup through LAN using RemoteControleService/LAN.

POINT

- You must reboot the server before beginning operations. When the server operates, ServerView can reboot it from the administration terminal.
- When the server has not been registered in the server list, refer to "■ Adding a Server" (→pg.179) to add the server.

1 Click the [File] menu → [Open] or click 📂 icon in the tool bar.

2 Select the desired server from the server list and click [Open].

3 Right-click in the RomPilot remote console window and then click [Connect/Setup] in the pop-up menu or right-click in the RCM window and then click [Start BIOS Setup at Next Connection].

4 Start or reboot the server.

5 Enter the server password.

When connection to the server is established, the [F2] key input is sent to the server automatically.

The BIOS Setup of the server appears after the server's POST.

4.4.4 Server's Boot Operations

This section describes how to control server's boot operations.

■ Power on for a Server

POINT

- To power on a server using RemoteControleService/LAN, one of the following conditions is required:
  - A network adapter supports Wakeup On Lan (WOL) in the server and power on through LAN is set "Enabled".
  - A remote service board is installed into the server.
  - The server is a blade server.
    For the WOL function and the settings for a server, refer to "User’s Guide".
- To power on a server from RemoteControleService/LAN, it is necessary to register the server in the server list of RemoteControleService/LAN and connect to it once.

● To use WOL

1 Click the [File] menu → [Open] or click 📂 icon in the tool bar.

2 Select the desired server from the server list and click [Open].

3 Right-click and click [Wakeup] in the pop-up menu or click the [Reset/Reboot] menu → [Wakeup].

■ Starting Servers from a Remote Drive

A combination of RemoteControleService/LAN and RomPilot/RCM provides the function that boots a server from a remote drive.

The remote drive indicates a floppy disk or an image file on the administration terminal.

POINT

- When a server is started from a remote drive, remote control is also enabled while MS-DOS is operating.
- The image file indicates a hard-disk copy for the contents of a floppy disk.
  This image file can be created in RemoteControleService/LAN.
  Click the [File] menu → [Properties] → [Remote Drive] → [Create/Copy Image File] for creation.
- To use the remote drive function, RomPilot/RCM is necessary.
  Even if you connect to a remote service board, the remote drive function would not be available.
- RCM does not support the remote drive function from a floppy disk.
  To use the remote drive function in RCM, it is necessary to create an image file and configure the settings starting from the image file.

1. Click the [File] menu → [Open] or click 📂 icon in the tool bar.

2. Select the desired server from the server list and click [Open].

3. Right-click and click [Suspend at Next Connection] (for RCM, [Start BIOS Setup at Next Connection]).

4. Start or reboot the server.

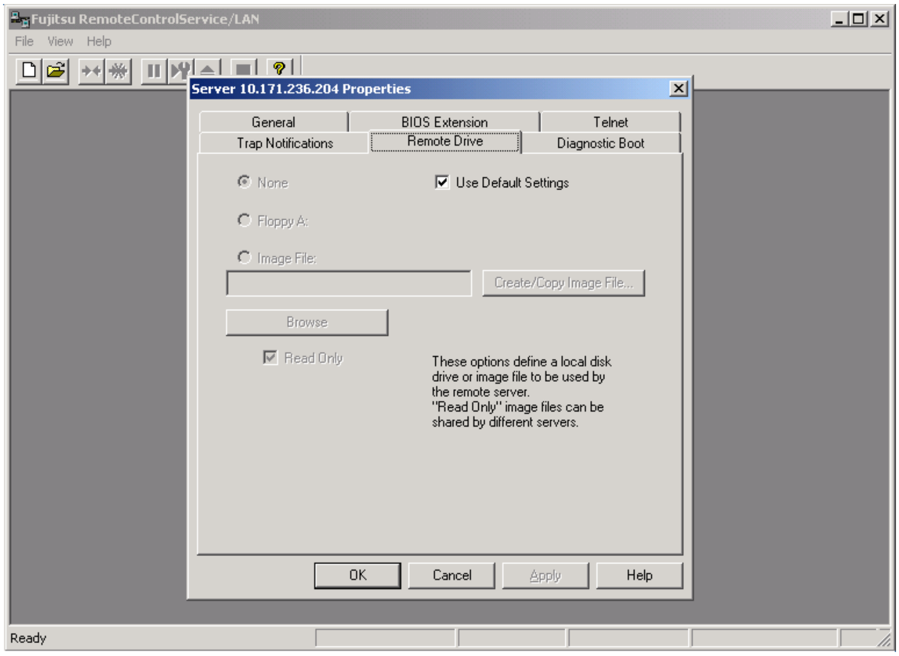
5. Enter the server password.

   IF the server is connected, the server's POST suspends automatically.

6. Click the [Reset/Reboot] menu → [Next Reset Options] or right-click and click [Next Reset Options] in the pop-up menu.

7 Click [Remote Drive Options].

The [Remote Drive] tab in the properties for the server appears.



● None
○ Floppy A:
○ Image File:
☑ Use Default Settings
☑ Read Only

These options define a local disk drive or image file to be used by the remote server.
"Read Only" image files can be shared by different servers.

8 Clear [Use Default Settings], select [Floppy A:] or [Image File], and click [OK].

When you select [Image File], enter the image file name or click [Browse] and then specify the image file.

9 Select [Enable Remote Drive] and click [Cold Remote Boot].

The server will be rebooted from a remote drive.

10 Enter the server password.

The server is started from a remote drive after POST. The remote window displays [RD] indicating the remote drive.

4.4.5 Support of the Remote Service Board (PG-RSB103)

This section describes the remote service board (PG-RSB103) support. The "remote service board" described in this section indicates the "remote service board (PG-RSB103)".

IMPORTANT

- A Telnet interface is not supported in the remote service board (PG-RSB102).
- Console redirection through a Telnet interface is not supported in the remote service board (PG-RSB103).

■ Connecting to the Remote Service Board

The remote service board includes the Telnet interface called remote manager, which can be connected from RemoteControleService/LAN. The remote manager allows you to verify the information about the target server. Certain information such as a system name appears only after the ServerView Agent is initially started, or only when the server is properly configured.
Connect to the remote service board through RemoteControleService/LAN according to the following procedure:

IMPORTANT

- Before starting Telnet connection, use a Web interface in the remote service board to enable a Telnet port. For more details, refer to "5.3.8 [Web/SSL Config] Page" (→pg.238).

1 Click the [File] menu → [Properties].

The [Properties] window appears for servers.

2 Clear [Use Default Settings] in the [General] tab and then select [Telnet]. Enter an IP address of the remote service board for [Secondary IP address] in the [Telnet] tab.
When the Telnet port number for the remote service board has been changed, clear [Use Default Settings] and enter the Telnet port number in [Redirection Port].

3 Click [OK].

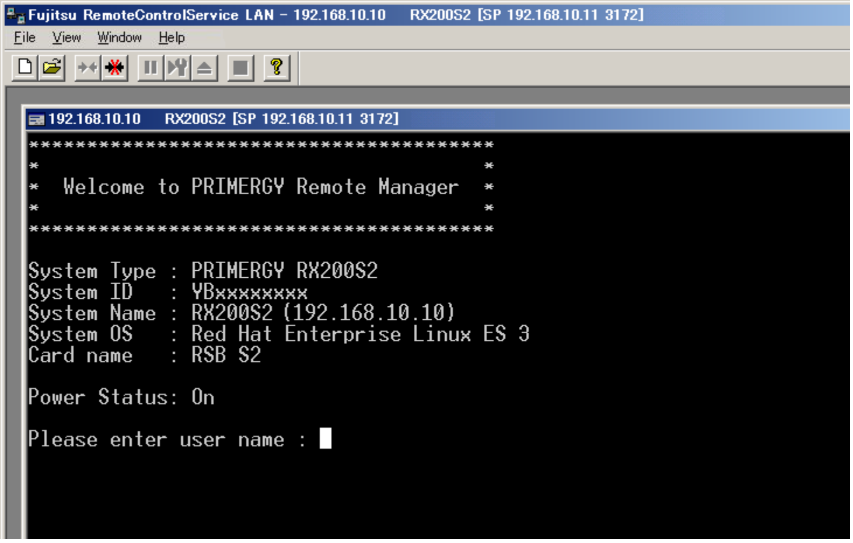
4 Click the [File] menu → [Open].

5 Select a server and click [Open].

The report manager window appears.

6 Right-click and Click [Connection].

The following window appears.



Fujitsu RemoteControlService LAN - 192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10 RX200S2 [SP 192.168.10.11 3172]

```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

Please enter user name : █
```

7 Log in as a user account for the remote service board.

After log in, the main menu appears for the remote manager.

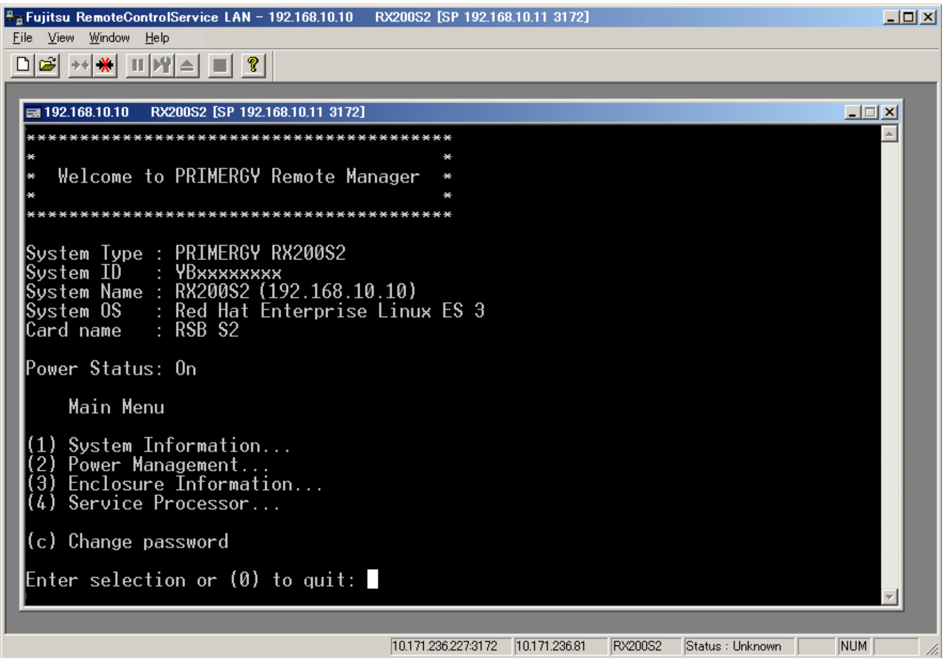
■ Main Menu

The main menu in the remote manager is shown as follows.

The menu depends on machine type and an applicable menu will appear.

table: Main Menu

Menu Item	Description
System Information	Displays system information. If this is selected, the system information menu appears.
Power Management	Controls the server power supply. If this is selected, the power management menu appears.
Enclosure Information	Displays server information. If this is selected, the server information menu appears.
Service Processor	Displays the configuration and information of the remote service board. If this is selected, the RSB menu appears.
Change password	Changes a password.


Fujitsu RemoteControlService LAN - 192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
10.171.236.227:3172
10.171.236.81
RX200S2
Status : Unknown
NUM

```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

    Main Menu

(1) System Information...
(2) Power Management...
(3) Enclosure Information...
(4) Service Processor...

(c) Change password

Enter selection or (0) to quit:
```

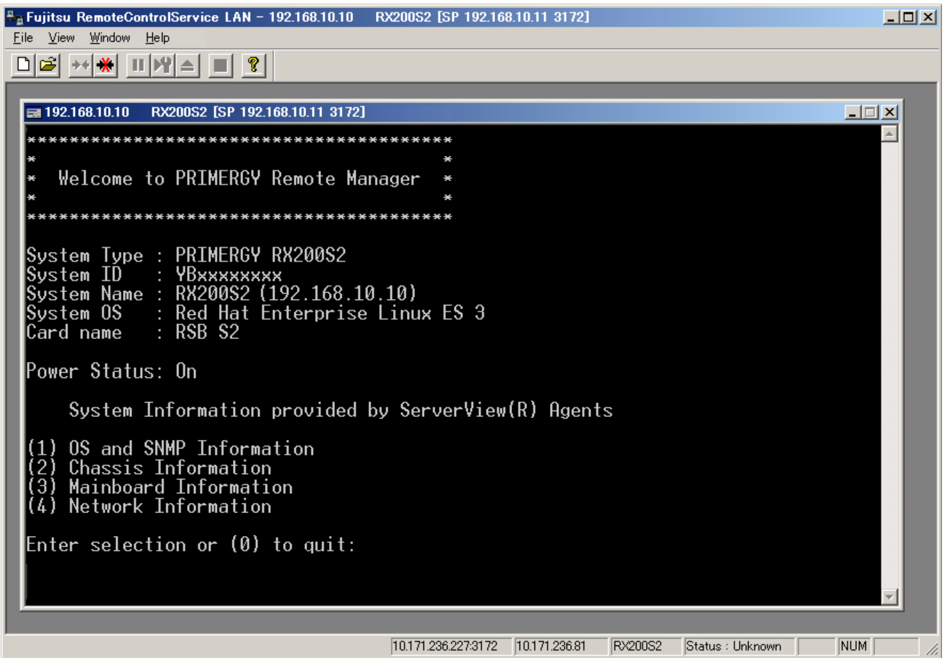
The above window is a main menu example.

If the number or character on the left of each item is entered, the corresponding item is executed or its submenu items appear. The unavailable functions are marked (*).

If the [0] key is pressed, the higher menu would appear. If the [0] key is pressed, the remote service board would be disconnected while the main menu (the above figure) is displayed.

● System Information

Select [System Information] in the main menu and the following menu appears.



Fujitsu RemoteControlService LAN - 192.168.10.10   RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10   RX200S2 [SP 192.168.10.11 3172]
10.171.236.227:3172 | 10.171.236.81 | RX200S2 | Status : Unknown | NUM

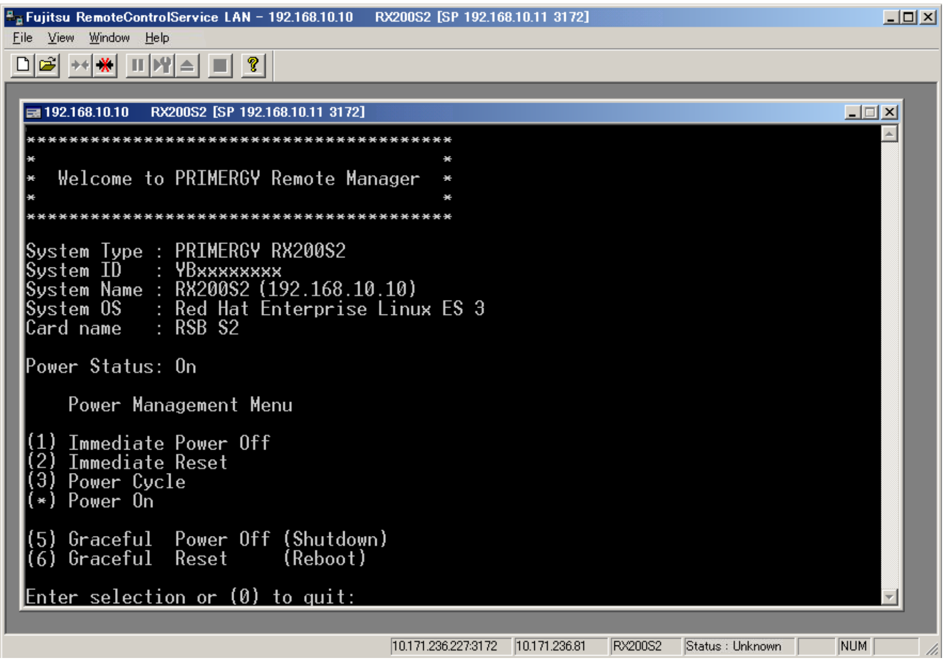
```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

    System Information provided by ServerView(R) Agents

(1) OS and SNMP Information
(2) Chassis Information
(3) Mainboard Information
(4) Network Information

Enter selection or (0) to quit:
```

table: System Information Menu

Menu Item	Description
OS and SNMP Information	OS names and ServerViewAgent versions are displayed.
Chassis Information	The server's type name and serial number are displayed.
Mainboard Information	BIOS versions and board information are displayed.
Network Information	Information on network nodes is displayed.

● Power Management

Select [Power Management] in the main menu and the following menu window appears.


Fujitsu RemoteControlService LAN - 192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
10.171.236.227:3172
10.171.236.81
RX200S2
Status : Unknown
NUM

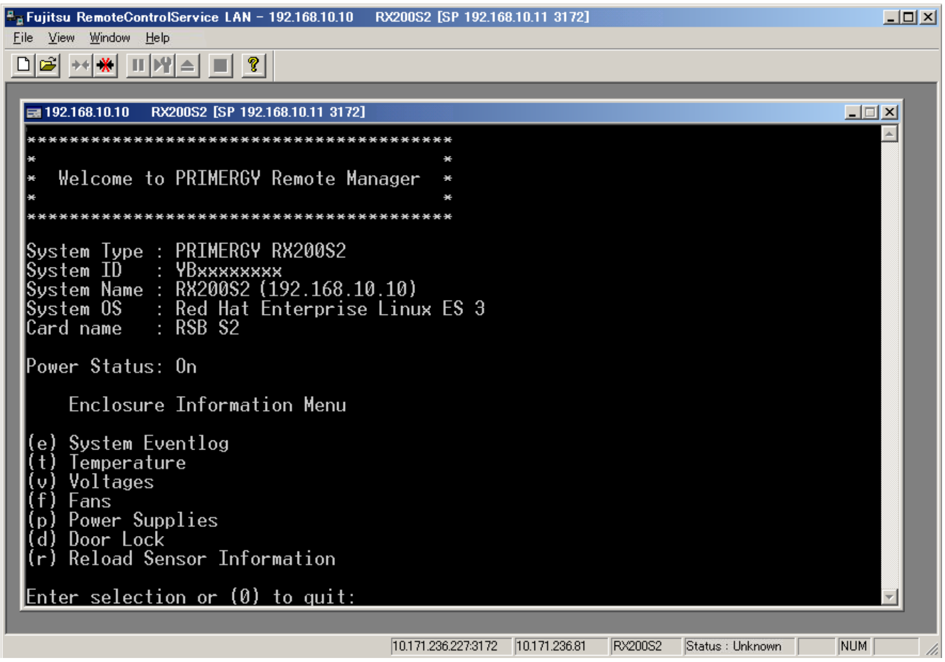
```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

    Power Management Menu

(1) Immediate Power Off
(2) Immediate Reset
(3) Power Cycle
(*) Power On

(5) Graceful  Power Off (Shutdown)
(6) Graceful  Reset     (Reboot)

Enter selection or (0) to quit:
```

table: Power Management Menu

Menu Item	Description
Immediate Power Off	Turns the server off regardless of the state of the OS.
Immediate Reset	Reboots the server regardless of the state of the OS.
Power Cycle	Powers off the server and powers on it again, regardless of OS status.
Power On	Turns the server on.
Graceful Power Off (Shutdown)	Shuts down the Server. The remote service board sends a shutdown request to the ServerView Agent in the server. When the remote service board cannot send the shutdown request because the agent is not installed and so on, it goes to another dialog and displays a message to confirm whether to shut down the server regardless of OS status (Immediate Power Off).
Graceful Reset (Reboot)	Reboots the server. The remote service board sends a reset request to the ServerView Agent in the server. When the remote service board cannot send the reset request because the agent is not installed and so on, it goes to another dialog and displays a message to confirm whether to reset the server regardless of OS status (Immediate Reset).

● Enclosure Information

Select [Enclosure Information] in the main menu and the following menu appears.


Fujitsu RemoteControlService LAN - 192.168.10.10   RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10   RX200S2 [SP 192.168.10.11 3172]
10.171.236.227:3172
10.171.236.81
RX200S2
Status : Unknown
NUM

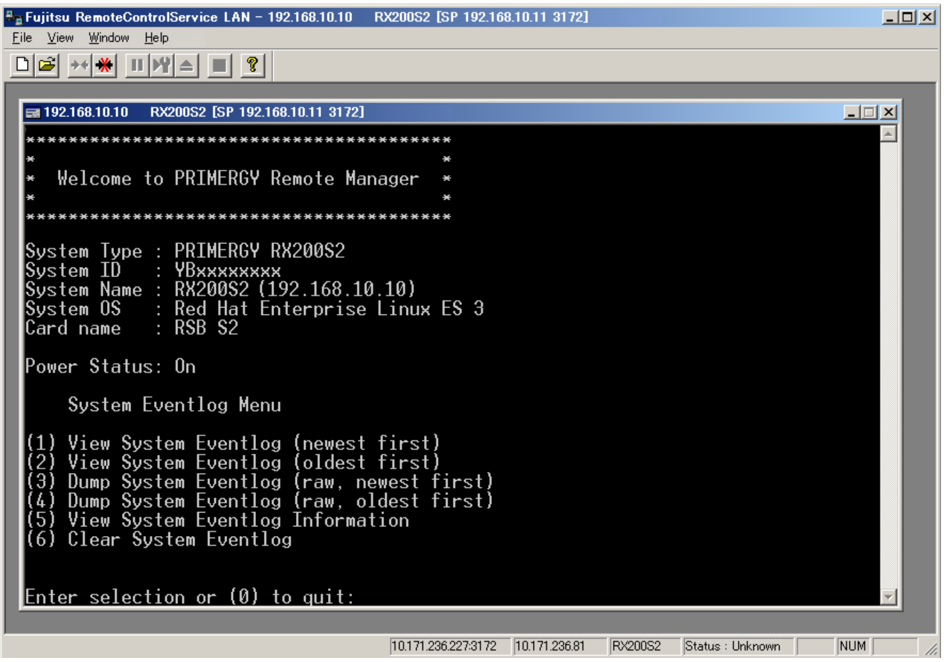
```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

    Enclosure Information Menu

(e) System Eventlog
(t) Temperature
(v) Voltages
(f) Fans
(p) Power Supplies
(d) Door Lock
(r) Reload Sensor Information

Enter selection or (0) to quit:
```

table: Enclosure Information Menu

Menu Item	Description
System Eventlog	Displays the [System Eventlog] menu window.
Temperature	Information on temperature is displayed.
Voltages	Information related to voltages is displayed.
Fans	Information on fans is displayed.
Power Supplies	Information on power supplies is displayed.
Door Lock	The open or closed state of a front door is displayed.
Reload Sensor Information	Reloads sensor information.

● System Eventlog

Select [System Eventlog] in the main menu and the following menu appears.


Fujitsu RemoteControlService LAN - 192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
10.171.236.227:3172
10.171.236.81
RX200S2
Status : Unknown
NUM

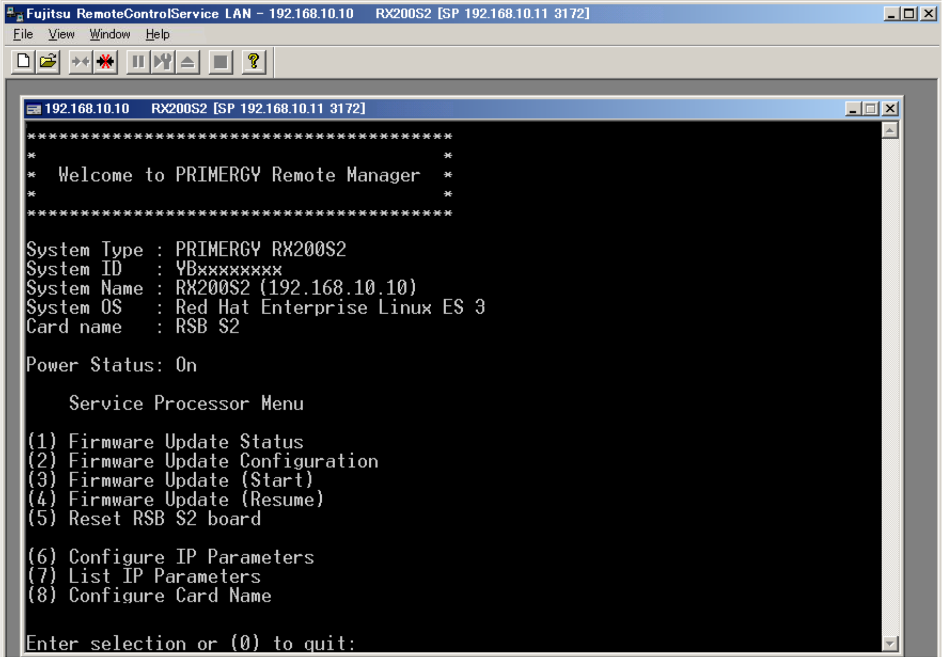
```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

    System Eventlog Menu

(1) View System Eventlog (newest first)
(2) View System Eventlog (oldest first)
(3) Dump System Eventlog (raw, newest first)
(4) Dump System Eventlog (raw, oldest first)
(5) View System Eventlog Information
(6) Clear System Eventlog


Enter selection or (0) to quit:
```

table: System Eventlog Menu

Menu Item	Description
View System Eventlog (newest first)	The contents of an event log are listed in order of time (the newest entry is located at the top) for the remote service board.
View System Eventlog (oldest first)	The contents of an event log are listed in order of time (the oldest entry is located at the top) for the remote service board.
Dump System Eventlog (raw, newest first)	Binary data of an event log are listed in order of time (the newest entry is located at the top) for the remote service board.
Dump System Eventlog (raw, oldest first)	Binary data of an event log are listed in order of time (the oldest entry is located at the top) for the remote service board.
View System Eventlog information	Information of an event log is displayed for the remote service board.
Clear System Eventlog	Clears event logs in the remote service board.

● Service Processor

Select [Service Processor] in the main menu and the following menu appears.


Fujitsu RemoteControlService LAN - 192.168.10.10 RX200S2 [SP 192.168.10.11 3172]
File View Window Help
192.168.10.10 RX200S2 [SP 192.168.10.11 3172]

```
****************************************
*                                      *
*  Welcome to PRIMERGY Remote Manager  *
*                                      *
****************************************

System Type : PRIMERGY RX200S2
System ID   : YBxxxxxxxx
System Name : RX200S2 (192.168.10.10)
System OS   : Red Hat Enterprise Linux ES 3
Card name   : RSB S2

Power Status: On

    Service Processor Menu

(1) Firmware Update Status
(2) Firmware Update Configuration
(3) Firmware Update (Start)
(4) Firmware Update (Resume)
(5) Reset RSB S2 board

(6) Configure IP Parameters
(7) List IP Parameters
(8) Configure Card Name

Enter selection or (0) to quit:
```

table: Service Processor Menu

Menu Item	Description
Firmware Update Status	Displays the state of firmware update in the remote service board. This function is not supported.
Firmware Update Configuration	Displays configuration of firmware update in the remote service board. This function is not supported.
Firmware Update (Start)	Starts firmware update in the remote service board. This function is not supported.
Firmware Update (Resume)	Resumes firmware update in the remote service board. This function is not supported.
Reset RSB S2 board	Reboots the remote service board.
Configure IP Parameters	Changes an IP address in the remote service board.
List IP Parameters	Displays an IP address in the remote service board.
Configure Card Name	Rename the remote service board.

4.4.6 IPMI Support

This section describes IPMI support through RemoteControleService/LAN.
This provides connection to an IPMI interface called remote IPMI manager from RemoteControleService/LAN.

■ Connecting to IPMI

1 Click the [File] menu → [Properties].

The [Properties] window appears for servers.

2 Clear [Use Default Settings] in the [General] tab and then select [IPMI].

3 Selects a machine type name for the server to be connected from the pull-down menu and click [OK].

For selection of a machine type name, refer to "● Notes for Selection of IPMI Machine Type Names" (→pg.157).

4 Click the [File] menu → [Open] to select a server.

5 Click [Open].

The remote IPMI manager window appears.

6 Right-click and then click [Connection].

7 Enter the user name and password.

The main menu in the remote IPMI manager window appears.

■ Main Menu for the Remote IPMI Manager

The main menu in the remote IPMI manager is shown as follows.
The menu depends on server and an applicable menu appears.

table: Main Menu for the Remote IPMI Manager

Menu Item	Description
Console Redirection	Redirects a console.
Power Management	Controls the power state of the server.

● Console Redirection

The console redirection enables you to redirect the server's windows and keyboard operations to a remote console. If the console redirection is selected, the server's window would be transmitted to the remote manager window. Input information from a keyboard is sent to the server's keyboard controller.
The following operations are enabled by the console redirection:

- Window display during POST
- BIOS Setup

- Displays the latest contents and available window (in a text mode) and recovers the system when OS crashes.

The console redirection exits if a tilde (~) and period (.) are sequentially entered within two seconds.

● Power Management

Select [Power Management] in the main menu and the following menu window appears.

table: Power Management Menu

Menu Item	Description
Immediate Power Off	Turns the server off regardless of the state of the OS.
Immediate Reset	Restarts the server regardless of the state of the OS.
Power Cycle	Powers off the server and then powers on it again, regardless of OS status.
Power On	Turns the server on.

Chapter 5

Using the Remote Service Board (PG-RSB102/PG-RSB103)

This chapter explains how to use the Remote Service Board (PG-RSB102/PG-RSB103).

5.1 Overview

This chapter explains the Remote Service Board (PG-RSB102/PG-RSB103).
In this chapter, "Remote Service Board" represents "Remote Service Board (PG-RSB102/PG-RSB103)". The Remote Service Board is an optional extension card having its own CPU, OS, communication interface, power supply, and USB port. With the Remote Service Board, it is possible to monitor and operate a server irrespective of the server state.

5.1.1 Functions

● Remote Service Board functions

- Server state monitoring (OS hang, power failure, abnormal temperature, voltage trouble)
- Notification to the administrator in case of server trouble
- Remote server operation (restart, power on/off)
- Server keyboard and mouse operation from the management console (Advanced Video Redirection functions)
- Booting the server with devices and bootable files on the management console

● Communication interfaces supported by the Remote Service Board

- LAN interface
- USB interface

5.1.2 Notes

- Each sensor item registered on the [Sensors] page is initialized after logging out from the Web interface.
- Although [Red PSU FAN] can be selected as a fan sensor on the [Sensors] page, the fan does not actually exist.
- Depending on the type of the server on which the RSB is installed, history information may not be displayed properly (Web interface → [Sensor] tag → [History Configuration]).
  Example: The following error occurs while viewing history information:
  Error gettings values Status Bar!

5.2 Preparation

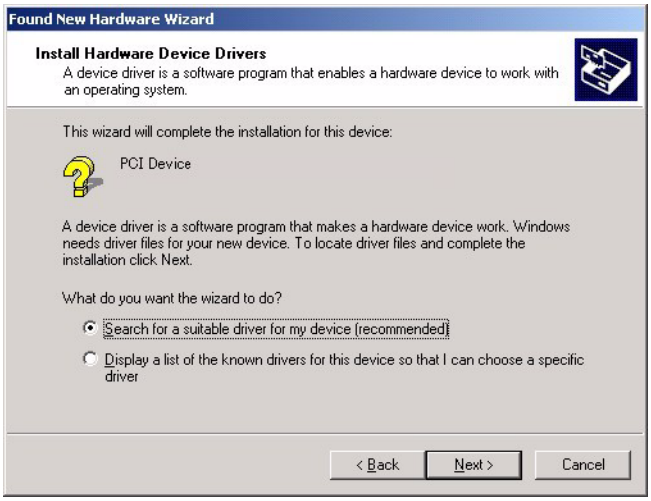
This section explains preparation for using the Remote Service Board.

5.2.1 Installing the Driver

The Remote Service Board driver is automatically installed irrespective of the existence of the Remote Service Board when a ServerView Agent is installed on the server. For details on how to install a ServerView Agent, refer to "2.3 Installing" (→pg.29).
For Windows, the Remote Service Board is detected by [Found New Hardware Wizard] when the OS is started immediately after ServerView, or the Remote Service Board is installed.
Perform the following procedures to install the driver. If multiple hardwares are recognized, repeat the same procedures to install all drivers.

1 When the [Welcome to the Found New Hardware Wizard] dialog appears, click [Next].

The [Install Hardware Device Drivers] dialog appears.



Found New Hardware Wizard

Install Hardware Device Drivers

A device driver is a software program that enables a hardware device to work with an operating system.

This wizard will complete the installation for this device:

PCI Device

A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.

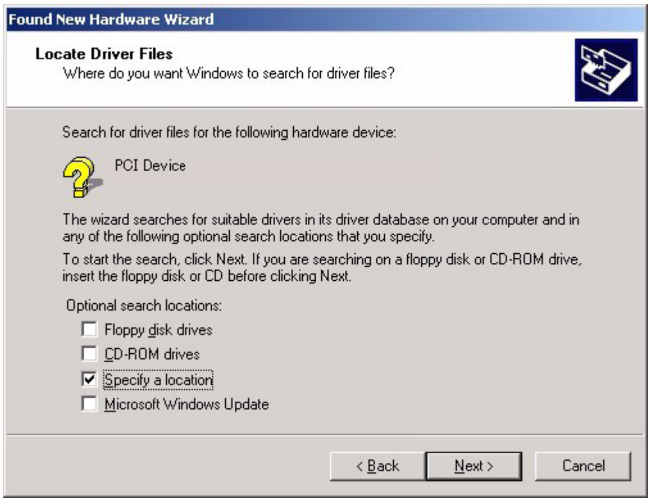
What do you want the wizard to do?

● Search for a suitable driver for my device (recommended)

○ Display a list of the known drivers for this device so that I can choose a specific driver

2 Select [Search for a suitable driver for my device (recommended)] as the search method and click [Next].

The [Locate Driver Files] dialog appears.



Found New Hardware Wizard

Locate Driver Files

Where do you want Windows to search for driver files?

Search for driver files for the following hardware device:

PCI Device

The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.

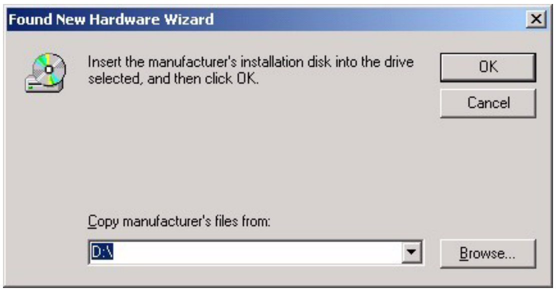
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.

Optional search locations:

- ☐ Floppy disk drives
- ☐ CD-ROM drives
- ☑ Specify a location
- ☐ Microsoft Windows Update

3 Under [Optional search locations], select [Specify a location] and click [Next].

A dialog to specify an installation source appears.



Found New Hardware Wizard

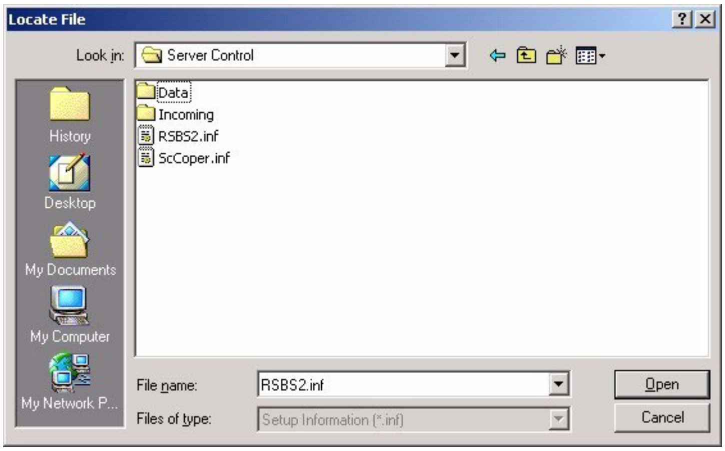
Insert the manufacturer's installation disk into the drive selected, and then click OK.

Copy manufacturer's files from:

D:\

4 Click [Browse], select "RSBS2.inf" in the following folder, and click [Open].

[System drive]: \Program Files\Fujitsu\F5FBAG01\Server Control



Locate File

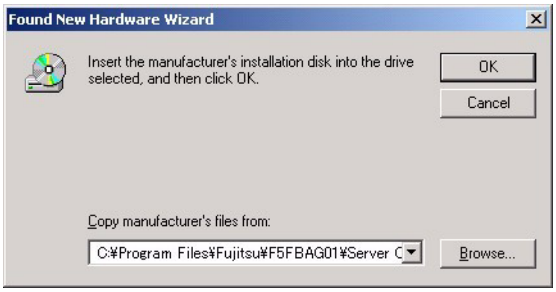
Look in: Server Control

- Data
- Incoming
- RSBS2.inf
- ScCoper.inf

File name: RSBS2.inf

Files of type: Setup Information (*.inf)

5 Make sure that the above path is displayed in [Copy manufacturer's files from] and click [OK].



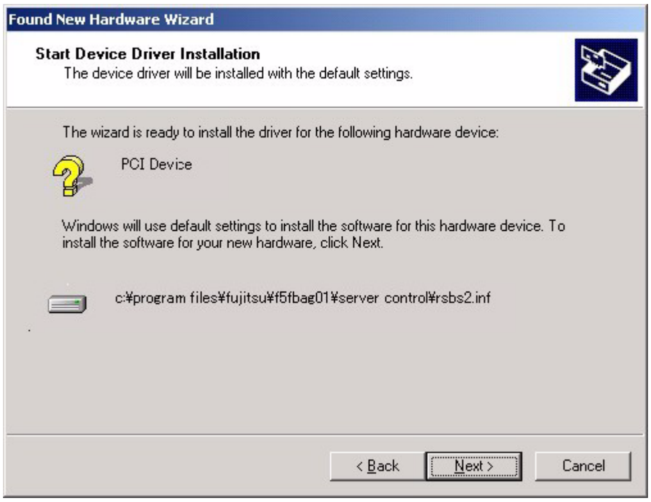
Found New Hardware Wizard

Insert the manufacturer's installation disk into the drive selected, and then click OK.

Copy manufacturer's files from:

C:¥Program Files¥Fujitsu¥F5FBAG01¥Server C

The [Start Device Driver Installation] dialog appears.



Found New Hardware Wizard

Start Device Driver Installation

The device driver will be installed with the default settings.

The wizard is ready to install the driver for the following hardware device:

PCI Device

Windows will use default settings to install the software for this hardware device. To install the software for your new hardware, click Next.

c:¥program files¥fujitsu¥f5fbag01¥server control¥rsbs2.inf

6 Click [Next].

The [Completing the Found New Hardware Wizard] dialog appears.

7 Click [Finish].

After the driver is successfully installed, the following devices are added in the Device Manager.

System management devices

- RemoteView(R) Service Board RSB S2 - Management Processor
- RemoteView(R) Service Board RSB S2 - Serial Console
- RemoteView(R) Service Board RSB S2 - Serial Interface
- RemoteView(R) Service Board RSB S2 - SMIC device

POINT

- During installation, a "security warning" dialog may appear to indicate that digital signature information is not included. Click [Yes] to continue installation.

5.2.2 Setting the LAN Interface

■ For Windows

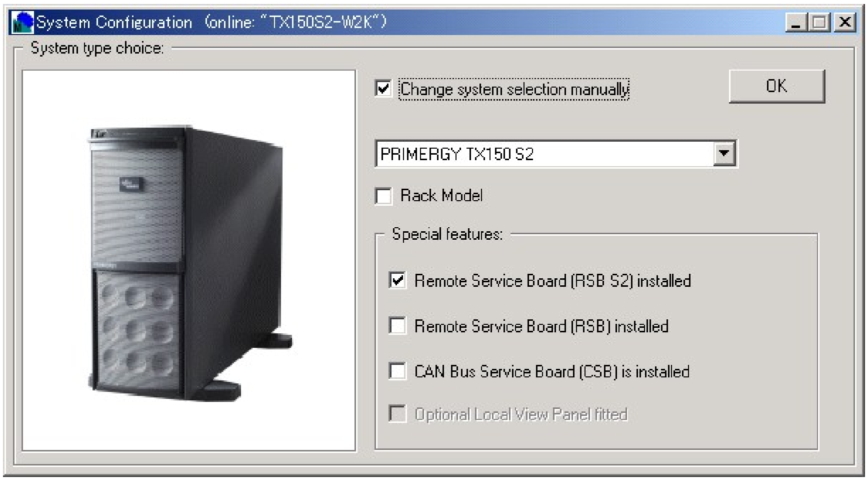
1 Log in to the server using the local user account belonging to the local Administrators group.

Setting is not available when using the Domain Admins group.

2 Exit all running applications.

3 Click [Start] → [Programs] → [Fujitsu ServerView Agents] → [Configuration Tools] → [System Configuration].

The [System Configuration] window appears. Make sure that the server type name is correct.



System Configuration (online: "TX150S2-W2K")

System type choice:

☑ Change system selection manually

PRIMERGY TX150 S2

□ Rack Model

Special features:

☑ Remote Service Board (RSB S2) installed

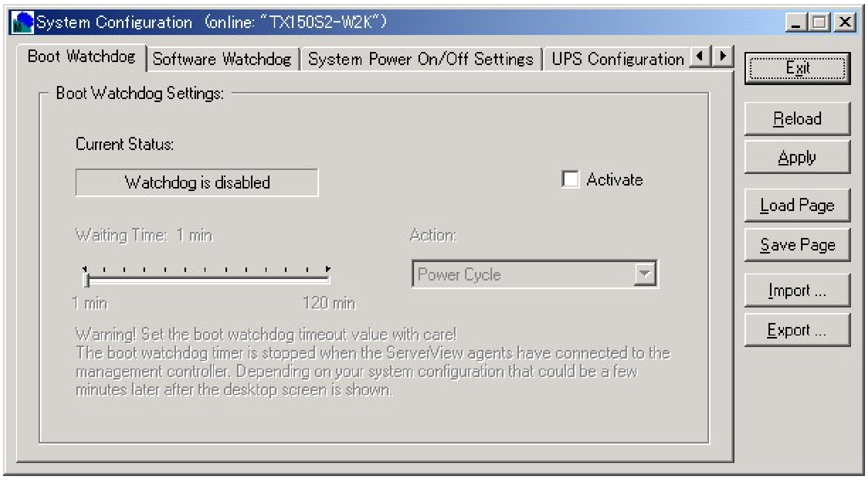
□ Remote Service Board (RSB) installed

□ CAN Bus Service Board (CSB) is installed

□ Optional Local View Panel fitted

4 Check the [Change system selection manually] and [Remote Service Board (RSB S2) installed] checkboxes and click [OK].

The following window appears.



System Configuration (online: "TX150S2-W2K")

Boot Watchdog Settings:

Current Status:

Watchdog is disabled

□ Activate

Waiting Time: 1 min

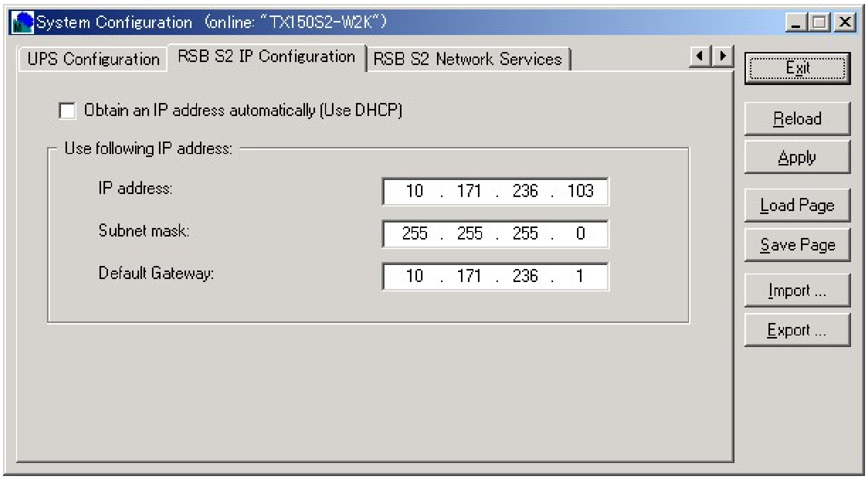
Action:

Power Cycle

1 min 120 min

Warning! Set the boot watchdog timeout value with care!
The boot watchdog timer is stopped when the ServerView agents have connected to the management controller. Depending on your system configuration that could be a few minutes later after the desktop screen is shown.

5 Click [▶] and select the [RSB S2 IP Configuration] tab.



□ Obtain an IP address automatically (Use DHCP)

Use following IP address:

IP address:	10 . 171 . 236 . 103
Subnet mask:	255 . 255 . 255 . 0
Default Gateway:	10 . 171 . 236 . 1

6 Uncheck the [Obtain an IP address automatically (Use DHCP)] checkbox and enter the IP address, subnet mask, and default gateway for the Remote Service Board.

7 Click [Apply].

8 Click [Exit].

■ For Linux

1 Log in as a super user.

2 Set the PRIMERGY Document & Tool CD and run the following command:

If a specific application has been installed, the CD-ROM is mounted automatically when it is set (the command need not be run).

```
# mount /mnt/cdrom/
```

3 Run the following command to start the utility from the CD-ROM.

```
# /mnt/cdrom/SVMANAGE/Linux/TOOLS/RSB_UTY/rsbs2_uty
```

4 Select [LAN Interface].

The following information currently set appears.

- IP address
- Subnet mask
- Default gateway
- DHCP (Enabled/Disabled)

5 Select "e" to proceed to item editing.

6 Set each item following the message displayed.

After entering an item, press the [Enter] key to edit the next item. When only the [Enter] key is pressed, the setting of the item will not be changed. After the settings of all items are completed, the [LAN Interface] window appears again.

7 Select "s" to save the settings.

8 Select "x" to exit [LAN Interface].

9 Select "x" to exit the utility.

10 Unmount and remove the CD-ROM.

Be sure to unmount the CD-ROM before removing it.

```
# umount /mnt/cdrom/
```

5.3 Displaying Each Monitoring Information

This section explains how to display server monitoring information using the Web interface.

5.3.1 Starting the Web Interface

The Remote Service Board supports the Web interface and can be accessed from the following Web browsers:
To use the Web interface, Java™ 2 Runtime Environment is required on the browser.
The following environment is recommended:

- For Windows
  - Microsoft Internet Explorer 5.5 or later (6.0 or later is recommended)
  - Java™ 2 Runtime Environment Standard Edition V1.4.2_06 or later

  or
  - Netscape Navigator/Communicator V4.78 or later (6.2 or later is recommended)
  - Java™ 2 Runtime Environment Standard Edition V1.4.2_06 or later
- For RHEL-AS2.1 (x86)/ES2.1 (x86)
  - Netscape Navigator/Communicator V4.78 or later (6.2 or later is recommended)
  - Java™ 2 Runtime Environment Standard Edition V1.4.2_06 or later
- For RHEL-AS3 (x86)/ES3 (x86)
  - Mozilla V1.3 or later
  - Java™ 2 Runtime Environment Standard Edition V1.4.2_06 or later

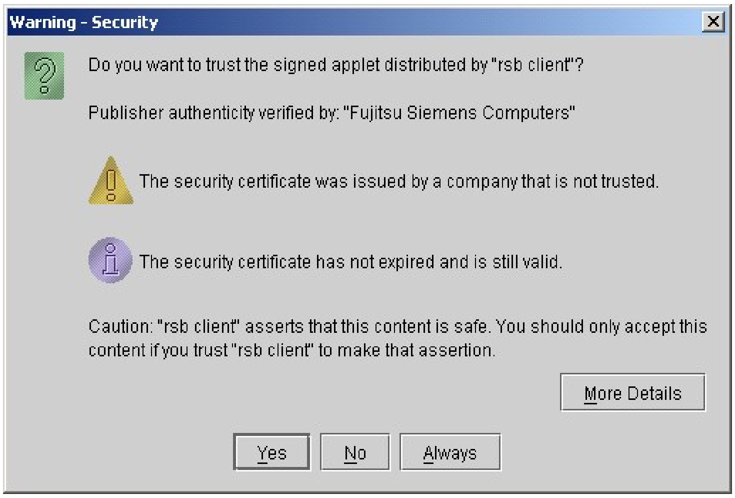
POINT

- To use a Web browser, it must be installed and set in advance. Refer to "2.4.1 Installing a Web Browser" (→pg.52) and "2.4.2 Installing Java™ 2 Runtime Environment Standard Edition" (→pg.53).

1 Start the Web browser and enter one of the following addresses in the address bar:

- http://<IP address>: <Port number (default: 80) > (when http is enabled)
- https://<IP address>: <Port number (default: 443) > (when https is enabled)

The following warning window appears:



Warning - Security

Do you want to trust the signed applet distributed by "rsb client"?

Publisher authenticity verified by: "Fujitsu Siemens Computers"

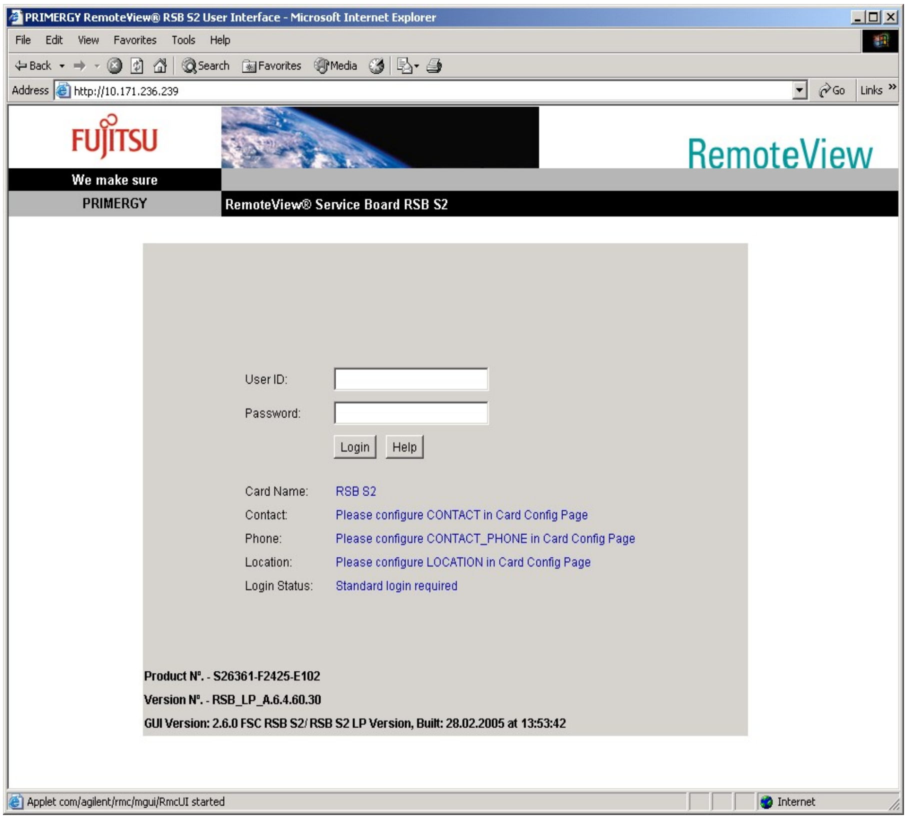
The security certificate was issued by a company that is not trusted.

The security certificate has not expired and is still valid.

Caution: "rsb client" asserts that this content is safe. You should only accept this content if you trust "rsb client" to make that assertion.

2 Click [Yes].

The login window appears.



PRIMERGY RemoteView® RSB S2 User Interface - Microsoft Internet Explorer

Address http://10.171.236.239

RemoteView® Service Board RSB S2

User ID:

Password:

Card Name:	RSB S2
Contact:	Please configure CONTACT in Card Config Page
Phone:	Please configure CONTACT_PHONE in Card Config Page
Location:	Please configure LOCATION in Card Config Page
Login Status:	Standard login required

Product N°. - S26361-F2425-E102

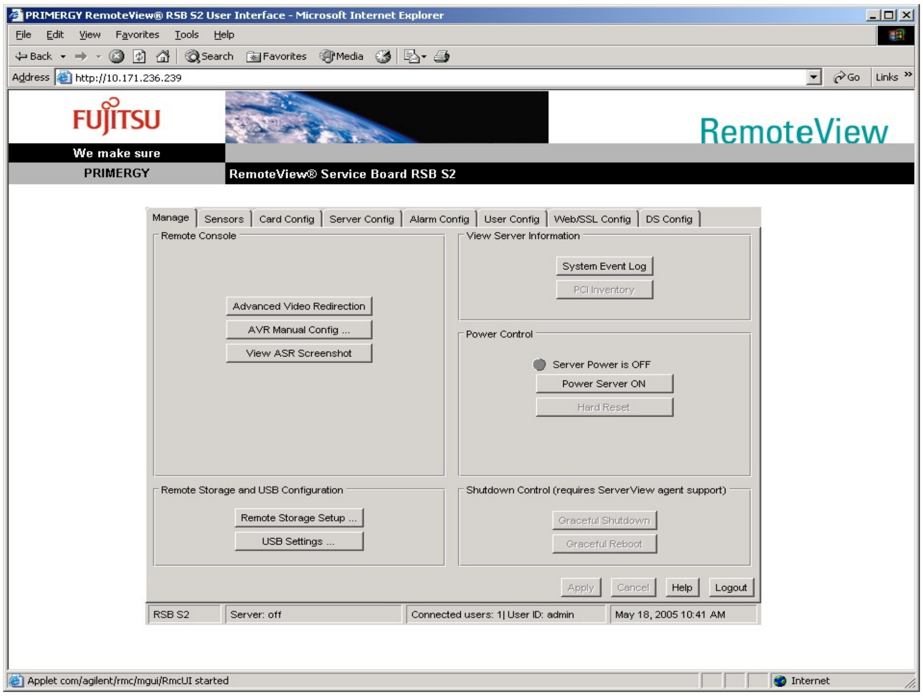
Version N°. - RSB_LP_A.6.4.60.30

GUI Version: 2.6.0 FSC RSB S2/ RSB S2 LP Version, Built: 28.02.2005 at 13:53:42

Applet com/agilent/rmc/mgui/RmcUI started

3 Enter the user name and password.

After authentication succeeds, the following window appears:



Address: http://10.171.236.239

● Server Power is OFF

RSB S2 | Server: off | Connected users: 1| User ID: admin | May 18, 2005 10:41 AM

Applet com/agilent/rmc/mgui/RmcUI started

On the Web interface, each function is displayed respectively under a tab. Click a respective tab to open each page. The following sections describe functions on each page.

5.3.2 [Manage] Page

The [Manage] page is available for setting how to display images and controlling power supply.

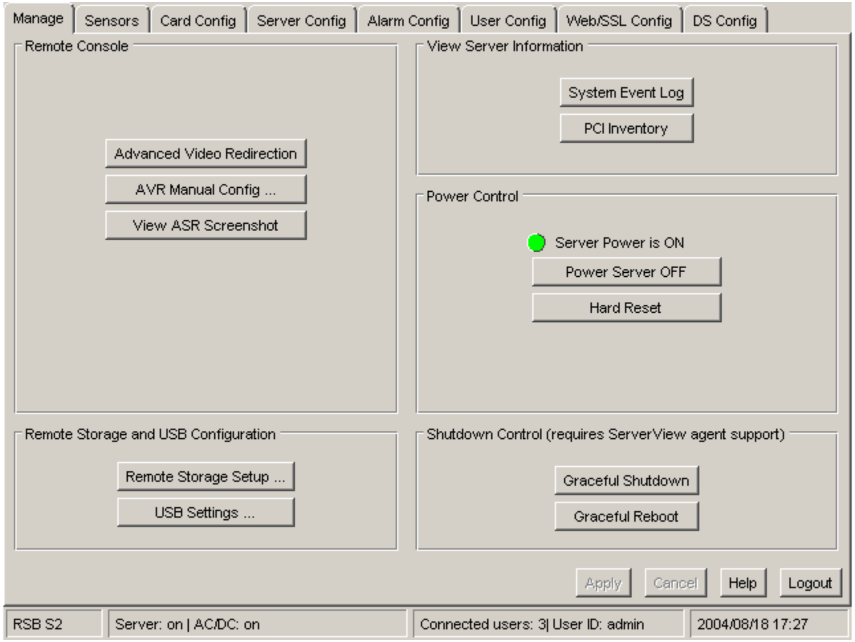


table: Functions on the [Manage] Page

Item	Description
Remote Console	This function allows the server screen to be displayed in the AVR window of the console, and allow server operation from the console.
[Advanced Video Redirection]	Opens the AVR window and starts redirection of the server window. →"■ Advanced Video Redirection (AVR) Functions" (P.209)
[AVR Manual Config ...]	Available for setting AVR functions. →"■ AVR Manual Configuration" (P.212)
[View ASR Screenshot]	Displays the screenshot of the server window captured at watchdog detection. →"■ View ASR Screenshot" (P.213)
Remote Storage and USB Configuration	Available for loading other drives on the network from the Remote Service Board.
Remote Storage Setup	Available for setting Remote Storage functions. →"■ Remote Storage Functions" (P.214)
USB Setting	Available for setting USB functions. →"■ USB Settings" (P.226)
View Server Information	Displays server information.
System Event Log	Displays server SELs.
PCI Inventory	Displays PCI device information. This function is available only for the Remote Service Board (PG-RSB102).

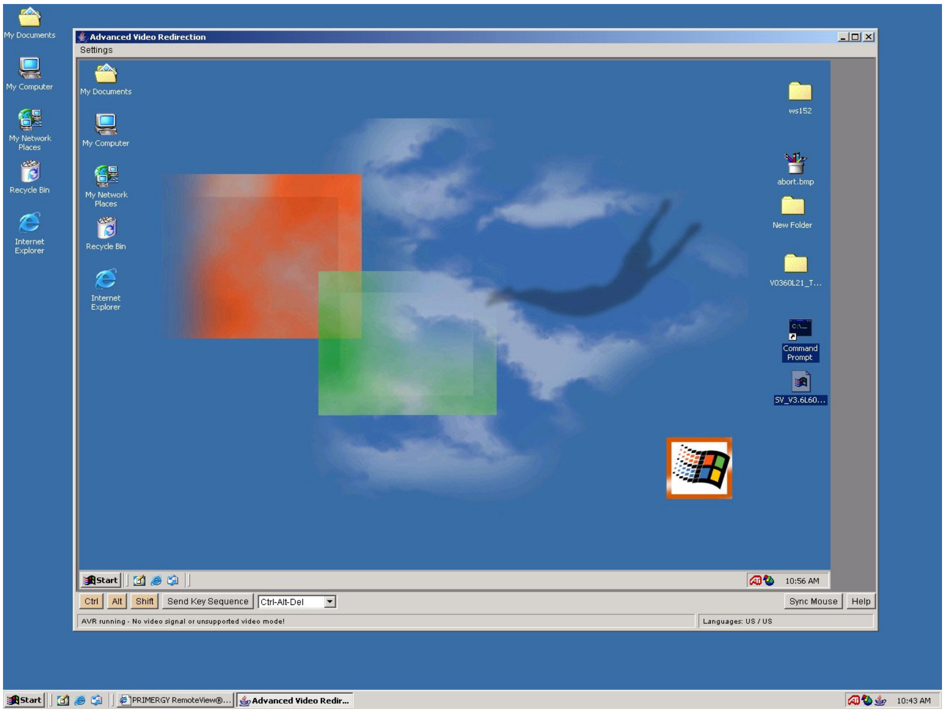
table: Functions on the [Manage] Page

Item	Description
Power Control	Available for controlling the server power supply.
Power Server On/Off	If the server is turned on, it performs power-off regardless of the state of the server. Performs power-on if the server is turned off.
Hard Reset	Performs reset regardless of the state of the server.
Shutdown Control	Shuts down and reboots the server. For this operation, a ServerView Agent must have been installed on the OS of the server.
Graceful Shutdown	Shuts down the OS of the server.
Graceful Reboot	Reboots the OS of the server.

■ Advanced Video Redirection (AVR) Functions

Advanced Video Redirection (AVR) is a function to display images shown on the server window on the AVR window of the console and allow server operation from the console.

Click the [Advanced Video Redirection] button to open the following AVR window. The window displayed on the server window appears as it is on the AVR window. Key and mouse operations on the AVR window are sent to the server, though there are exceptions.



AVR running - No video signal or unsupported video mode!

Languages: US / US

POINT

- Performance of the AVR window varies depending on multiple factors such as drawing capacities, OS screen resolutions, and window colors of the server and console. Select appropriate settings for your use and purpose. Basically, the higher the graphics performance of the console is, the more effectively AVR functions.
- [Send Ctrl-Alt-Del] button
  Press the [Send Ctrl-Alt-Del] button to set the server in the state where [Ctrl], [Alt], and [Del] are pressed.
- [Ctrl]/[Alt]/[Shift] buttons
  The color of the buttons changes depending on how many times they are pressed. The meanings of each color are as follows:

table: Meanings of Displayed Colors

Color	Meaning
Gray	Standard state when [Sticky Key Mode] is disabled.
Orange	Standard state when [Sticky Key Mode] is enabled.
Yellow-green	The state where the key is pressed. The state is reset by one action using a combination with another key.
Green	State where the key is always pressed. Any number of actions can be taken using a combination with another key. This appears only when [Sticky Key Mode] is enabled.

- [Send Key Sequence] button
  Select a key action in the combo box next to the button and press the [Send Key Sequence] button to set the server in the state where the same key is pressed. Key actions can be selected from the following options:
  - Ctrl-Alt-Del
  - Alt-SysRq
  - Alt-Tab
  - Alt-F4
  - Ctrl-Alt-F4
  - Ctrl-Tab
  - Ctrl-Esc
  - Ctrl-Alt-Backspace
  - Print Screen
- [Sync Mouse] button
  Initializes the mouse position. Use this button when the mouse cursor position becomes different between the console and server.

IMPORTANT

- Since the configuration utility [WebBIOS] window of the MegaRAID SCSI RAID card uses its original mouse driver, proper mouse operation is not available for Advaced Video Redirection functions when using the RSBS2/S2LP Web interface. Therefore, WebBIOS is not available for AVR functions.

● [Settings] menu

Click the [Settings] menu on the top of the window to display the following submenus on which you can set AVR window images, mouse, and keyboard.

table: Functions on the [Settings] Menu

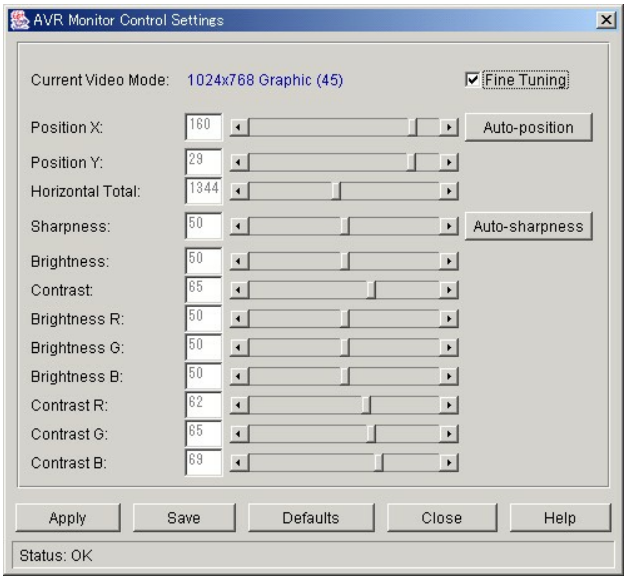
Item	Description
Display	Setting items related to window display.
Monitor Controls	Opens the " [AVR Monitor Controls Settings] window" (→pg.211). Available for setting AVR window display.
Video Capture Parameters	Opens the " [AVR Video Capture Settings] window" (→pg.212). Available for setting the AVR capture function.
Keyboard	Setting items related to the keyboard.
Typing Mode	Enables/disables the typing mode of the console keyboard on the server.
Sticky Key Mode	Sets the entry mode of special key operations (such as [Ctrl], [Alt], and [Shift]).
Secure Keyboard	Disables [Typing Mode] and [Sticky Key Mode].
Mouse	Setting items related to the mouse.
Read Mouse Acceleration	Enables/disables mouse cursor acceleration.
Show Client Cursor	Enables/disables the display of the console mouse cursor on the AVR window.
View-Only mode	Blocks mouse and keyboard operations when it is enabled.

IMPORTANT

- If [View-Only mode] is enabled on the [Settings] menu for the Remote Service Board (PG-RSB102), [View-Only mode] cannot be disabled until the AVR window is exited. To disable it, exit the AVR window once and then open it again.

[AVR Monitor Controls Settings] window

Available for setting AVR window display. Use the scroll bar to set each value.


AVR Monitor Control Settings

Current Video Mode: 1024x768 Graphic (45)

☑ Fine Tuning

Position X: 160

Position Y: 29

Horizontal Total: 1344

Sharpness: 50

Brightness: 50

Contrast: 65

Brightness R: 50

Brightness G: 50

Brightness B: 50

Contrast R: 62

Contrast G: 65

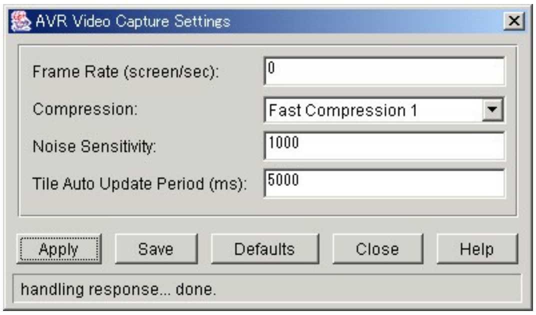
Contrast B: 69

Status: OK

Click [Apply] to enable the settings. The window display may become improper after settings are changed. In such a case, click [Defaults] to initialize them.

[AVR Video Capture Settings] window

Available for setting the AVR capture function. It is possible to set the frame rate, noise sensitivity, and resolution switching speed of the AVR function.



Frame Rate (screen/sec): 0

Compression: Fast Compression 1

Noise Sensitivity: 1000

Tile Auto Update Period (ms): 5000

handling response... done.

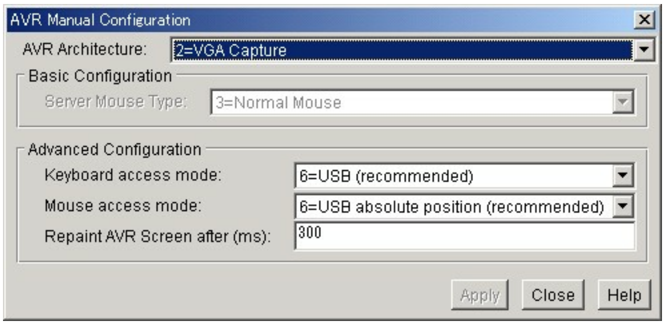
See the following table for settings in [Compression].

table: Settings in [Compression]

Item	Performance	Required Bandwidth	Image Quality
No Compression	Slow	Highest	Highest
Fast Compression 1/2	Highest speed	Medium	Lowest
Good Quality Compression	High speed	Lowest	Low
Best Quality Compression 1/2	Medium	Low	Medium

Click [Apply] to enable the settings. The window display may become improper or nothing may appear after settings are changed. In such a case, click [Defaults] to initialize them.

■ AVR Manual Configuration



AVR Architecture: 2=VGA Capture

Basic Configuration

Server Mouse Type: 3=Normal Mouse

Advanced Configuration

Keyboard access mode: 6=USB (recommended)

Mouse access mode: 6=USB absolute position (recommended)

Repaint AVR Screen after (ms): 300

Available for setting basic AVR functions.

table: Basic AVR Settings

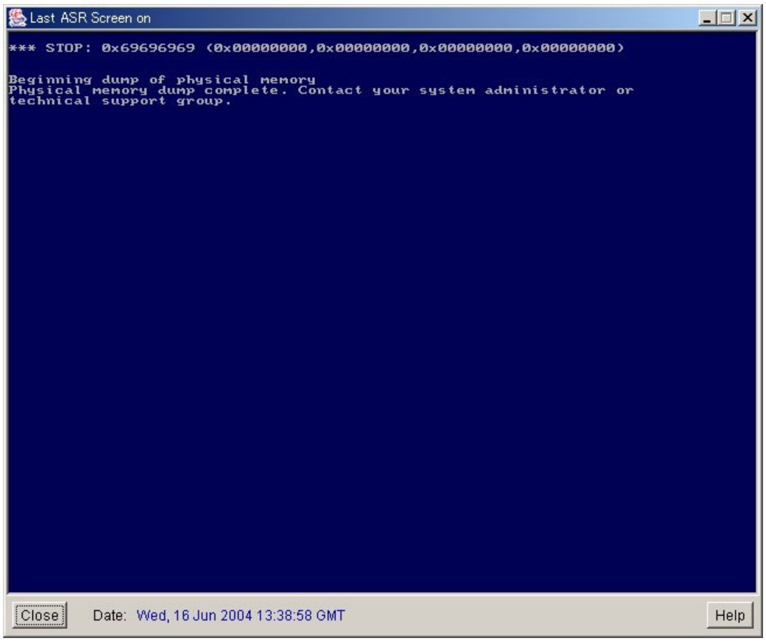
Item	Description
AVR Architecture	Select [2=VGA Capture].
Keyboard access mode	Select [6=USB (recommended)].
Mouse access mode	The settings differ depending on the OS on the server. Set [6=USB absolute position (recommended)] for Windows and [7=USB relative position] for Linux.
Repaint AVR Screen after (ms)	Set the update interval of the AVR window. Normally, it is not necessary to be changed from the default value (300).

POINT

- If [7=USB relative position] is set in [Mouse access mode], a menu is added to set mouse acceleration independently. In such a case, select "2" for normal use. This value differs depending on the server environment. If this setting does not correspond to the mouse acceleration setting on the server, the mouse cursor position may be different on the AVR window.

■ View ASR Screenshot

If the watchdog of the server is detected, the Remote Service Board automatically captures the screenshot of the server at this time. Click [View ASR Screenshot] to view the latest screenshot.



Last ASR Screen on

```
*** STOP: 0x69696969 (0x00000000,0x00000000,0x00000000,0x00000000)

Beginning dump of physical memory
Physical memory dump complete. Contact your system administrator or
technical support group.
```

Date: Wed, 16 Jun 2004 13:38:58 GMT

POINT

- For AVR, multiple consoles cannot be used for the same server. If AVR is executed from the console B to the Remote Service Board which is executing AVR on the console A, AVR on the console A is forcibly exited.
- Be sure to execute AVR on an administration terminal different from the target server. If AVR of a server is executed on the browser of the said server, window displays will not stop.
- [View ASR Screenshot] does not show the server window in real-time. Keyboard and mouse operations are not available.
- To use AVR, set [Enable] in [USB Legacy Support] in the server BIOS settings. If [Disable] is set in [USB Legacy Support], mouse and keyboard may not be enabled for AVR in a certain server state. For server BIOS settings, refer to the manual attached to the server.

■ Remote Storage Functions

Remote Storage is a function to connect drives or other devices of different terminals on the network to a server on which the Remote Service Board is installed. The following two connection types are available for remote storages:

- Connection to a drive or other devices on a console which is executing the Web interface
  →"● Local connections" (P.214)
- Connection to a drive or other devices on an "iSCSI server"
  →"● iSCSI connection" (P.218)

The following functions can be performed using Remote Storage functions:

- Remote drive on the server OS
- Remote server boot

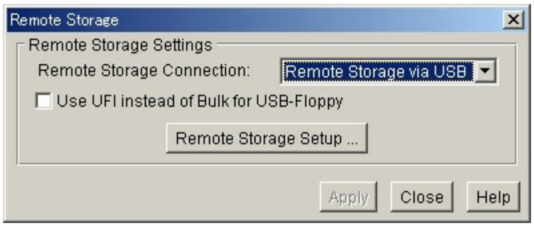
In addition, remote installation on the server OS can be performed from the console in combination with AVR described above.

● Local connections

Perform the following procedures for Local connections:

1 Click [Remote Storage Setup].

The following window appears.



Remote Storage

Remote Storage Settings

Remote Storage Connection: Remote Storage via USB

□ Use UFI instead of Bulk for USB-Floppy

2 Set the interface between the server and Remote Service Board.

Set [Remote Storage via USB] to [Remote Storage Connection:].

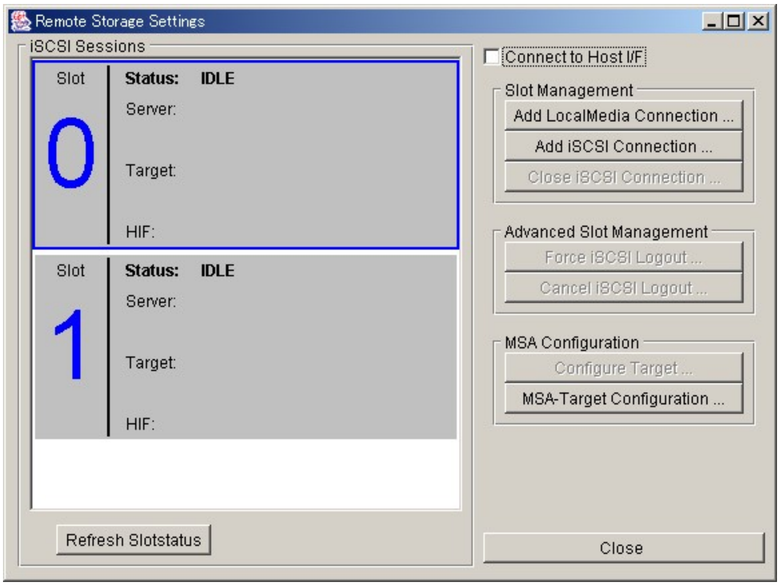
IMPORTANT

- If any setting is changed in [Remote Storage Connection:], the Remote Service Board requests resetting. To enable the change, reset the Remote Service Board.

Whether options are enabled or disabled depends on the settings of the Remote Service Board and server.

3 Click [Remote Storage Setup].

The following window appears.



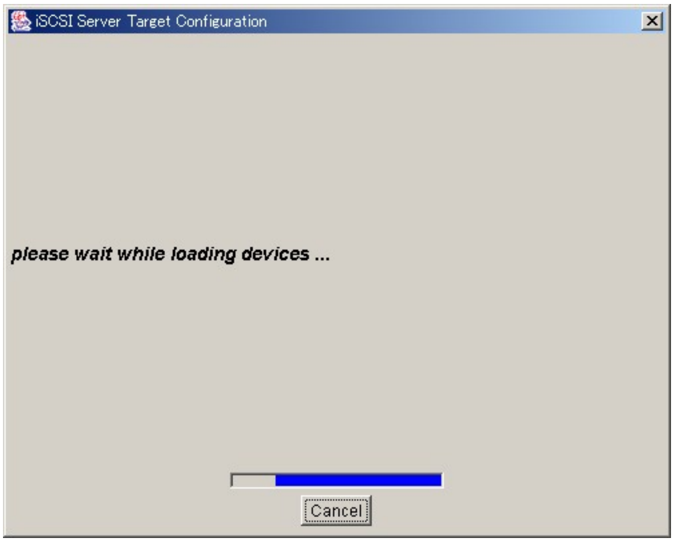
□ Connect to Host I/F

Slot 0
Status: IDLE
Server:
Target:
HIF:

Slot 1
Status: IDLE
Server:
Target:
HIF:

4 Select a slot and click [Add Local Media Connection].

Search for drives on the console starts.

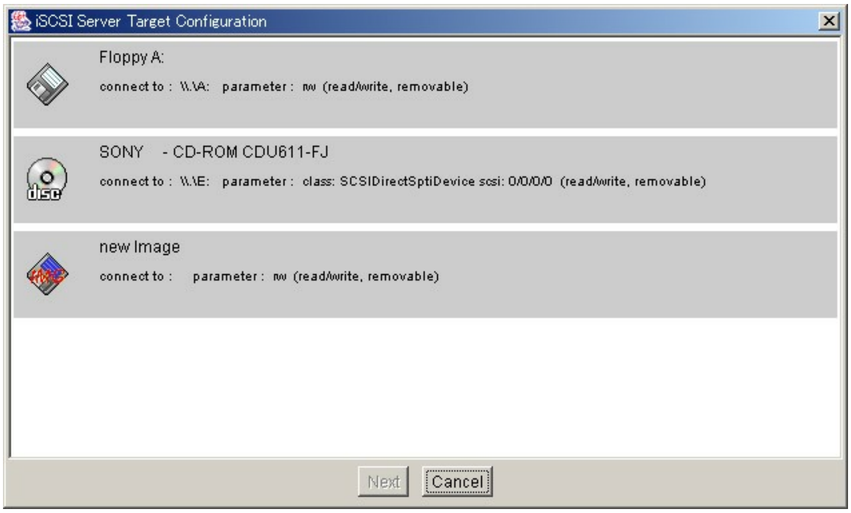


please wait while loading devices ...

POINT

- You may be asked whether to search for CD-ROM drives during search. If CD-ROM drives are used on RemoteStorage, click [Yes].

5 The following window appears after search is completed. Select an item and click [Next].



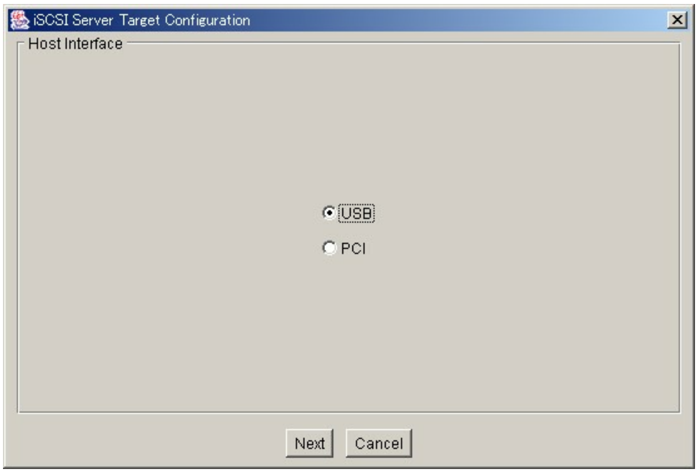
Floppy A:
connect to : \\.\A: parameter : rw (read/write, removable)

SONY - CD-ROM CDU611-FJ
connect to : \\.\E: parameter : class: SCSIDirectSptiDevice scsi: 0/0/0/0 (read/write, removable)

new Image
connect to : parameter : rw (read/write, removable)

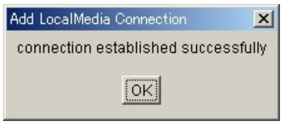
Devices displayed here depend on the console which is running the Web interface. In other words, only devices that can be recognized by the Web interface are displayed among those connected to the console. The following setting procedures differ depending on the selected drive. The procedures may also differ depending on the console hardware environment. Refer to the following example for setting.

Example: CD-ROM



● USB
○ PCI

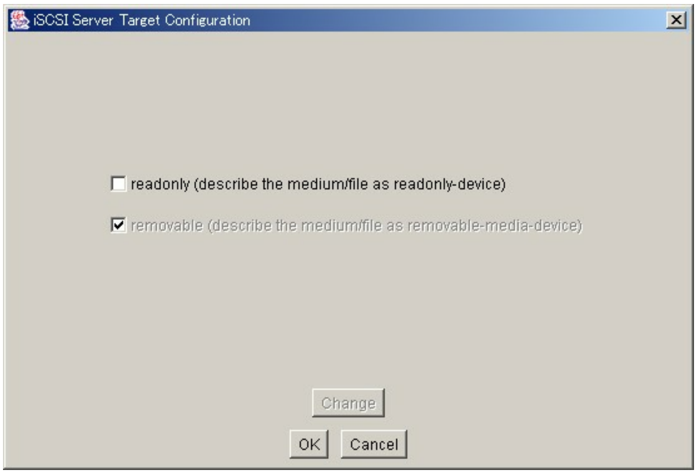
1. A window appears for selecting a connection interface. Select [USB] and click [Next].
   After connection succeeds, the following window appears:



connection established successfully

2. Click [OK].

Example: Floppy disk



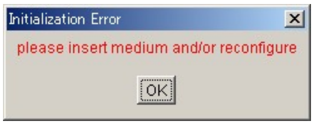
iSCSI Server Target Configuration

□ readonly (describe the medium/file as readonly-device)

☑ removable (describe the medium/file as removable-media-device)

1. To read a floppy disk as "ReadOnly", check [readonly (describe the medium/file as readonly-device)] and click [OK].

   If there is no floppy disk in the drive, the following warning message is displayed:

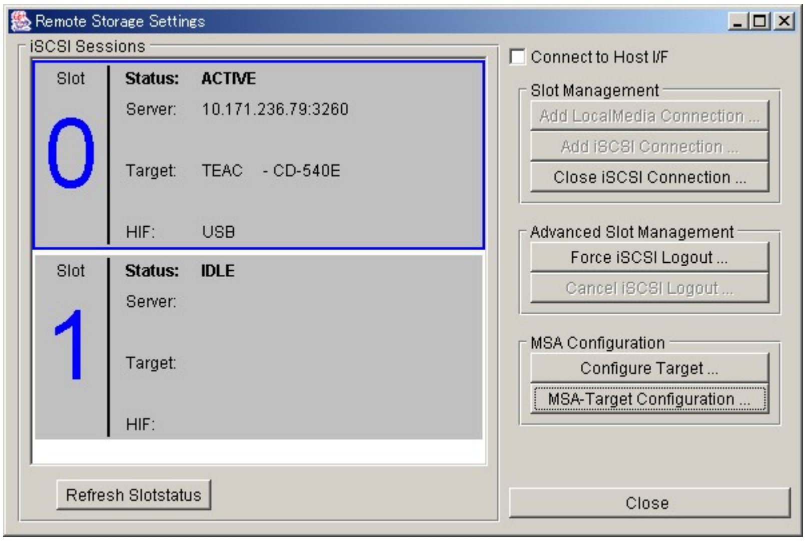


Initialization Error

please insert medium and/or reconfigure

2. Set a floppy disk in the drive and click [OK].
3. Select [USB] on the interface selection window and click [Next].

6 Make sure that device information is stored in the slot selected in Step 4.



Remote Storage Settings

iSCSI Sessions

Slot 0
Status: ACTIVE
Server: 10.171.236.79:3260
Target: TEAC - CD-540E
HIF: USB

Slot 1
Status: IDLE
Server:
Target:
HIF:

□ Connect to Host I/F

[ACTIVE] is displayed as the status of a slot in which a device is set and [IDLE] for a slot in which no device is set.
Select the slot marked [ACTIVE], check the [Connect to Host I/F] checkbox, and click [Configure Target].
This completes Local connection.

7 Click [Close] to close the [Remote Storage Setup] window.

POINT

- The above procedures describe Local connection via USB. For connection via PCI, select [PCI] in Steps 1 and 4 above, instead of [USB].
  Differences between USB and PCI connections are as follows:
  - Virtual CD-ROM via PCI is not supported.
  - To enable remote storages to be recognized via PCI, the server need be restarted.
  - Remote storages via USB are available only when USB legacy devices are supported by the BIOS settings.

● iSCSI connection

For iSCSI connection, the Remote Service Board works as an iSCSI client. To execute iSCSI connection, at least one "iSCSI server" is required on the network and the server must be physically different from the server on which the Remote Service Board is installed. The Remote Service Board connects to the iSCSI server to perform iSCSI connection.
An iSCSI server can be established by installing the Management Server Application (MSA) on the server OS. For more details on the MSA such as installation and setup, refer to the ReadMe file of the MSA.

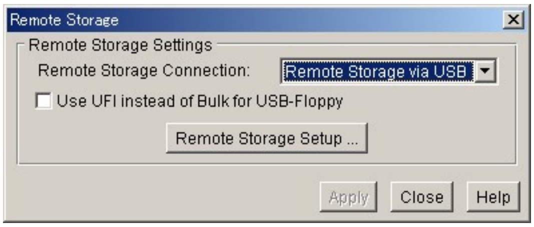
POINT

- The Web interface of the Remote Service Board cannot be opened from an iSCSI server.
- It is possible to connect to one iSCSI server from multiple Remote Service Boards.

Perform the following procedures for iSCSI connections:

1 Click [Remote Storage Setup].

The following window appears.



Remote Storage Connection: Remote Storage via USB

□ Use UFI instead of Bulk for USB-Floppy

Remote Storage Setup ...

2 Set the communication interface between the server and Remote Service Board.

Set [Remote Storage via USB] to [Remote Storage Connection:].

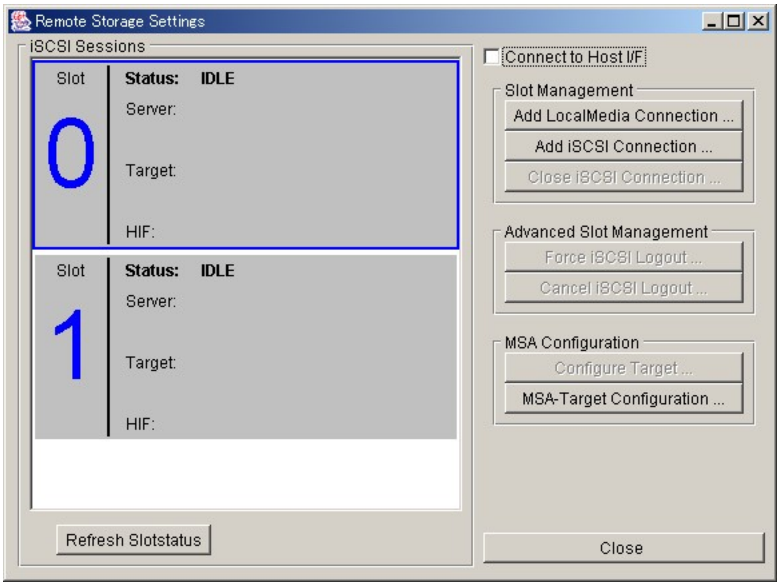
IMPORTANT

- If any setting is changed in [Remote Storage Connection:], the Remote Service Board requests resetting. To enable the change, reset the Remote Service Board.

Whether options are enabled or disabled depends on the settings between the Remote Service Board and server.

3 Click [Remote Storage Setup].

The [Remote Storage Settings] window appears.



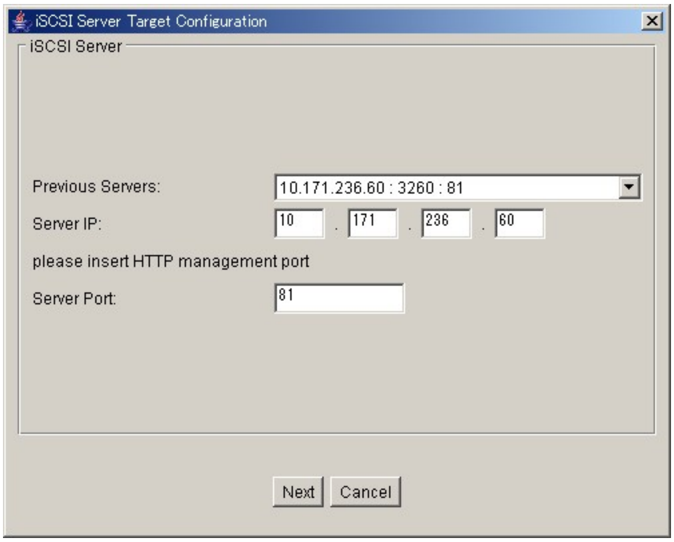
□ Connect to Host I/F

Slot 0 Status: IDLE
Server:
Target:
HIF:

Slot 1 Status: IDLE
Server:
Target:
HIF:

4 Click [MSA- Target Configuration].

The following window appears.



iSCSI Server Target Configuration

iSCSI Server

Previous Servers: 10.171.236.60 : 3260 : 81

Server IP: 10 . 171 . 236 . 60

please insert HTTP management port

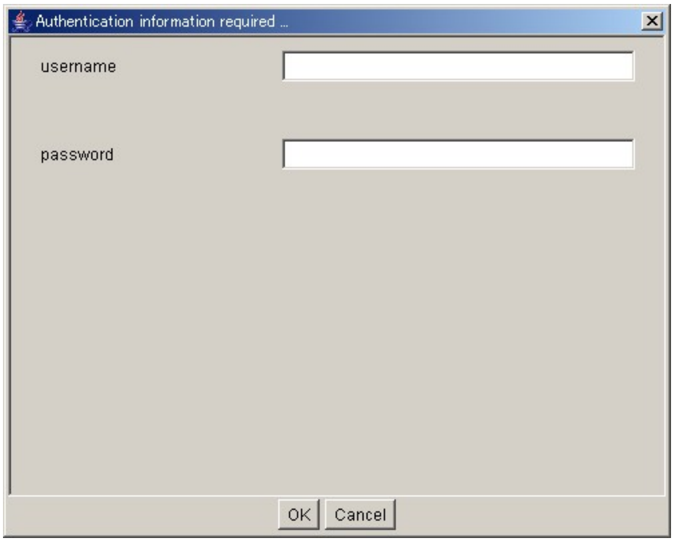
Server Port: 81

table: iSCSI Server Setting Items

Item	Description
Previous Servers	Select a destination from the history of the servers previously connected. Nothing appears if there is no previous connection.
Server IP	Enter the IP address of the server on which the MAS is installed.
Server Port	Enter the port number of the HTTP management port of the MAS. The default value is "81".

5 Set each item and click [Next].

The following window appears.



Authentication information required ...

username

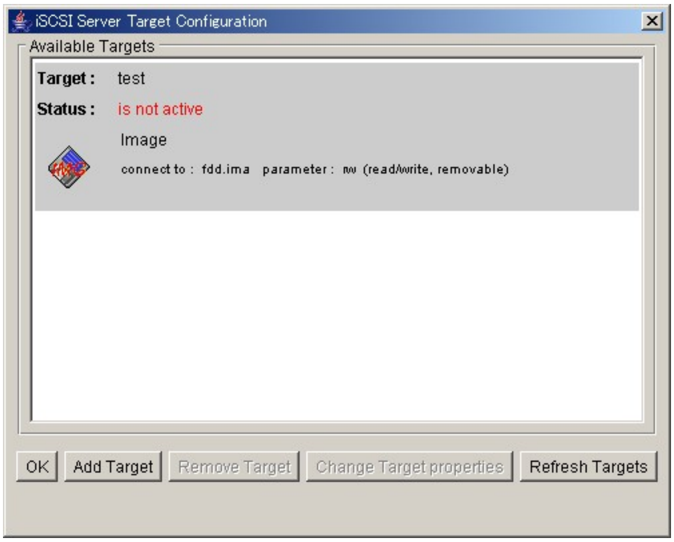
password

6 Enter the user name and password and click [OK].

POINT

- The user name and password can be changed on MAS settings.

The following window appears.



Target : test

Status : is not active

Image

connect to : fdd.ima parameter : rw (read/write, removable)

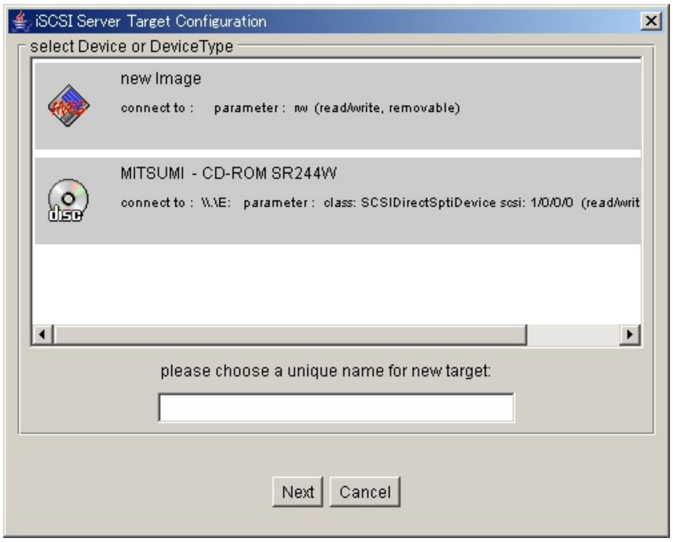
7 Create an iSCSI target object.

It is possible to remove iSCSI target objects or change their settings if necessary.

Creating an iSCSI target object

1. Click [Add Target].

   The following window appears.



iSCSI Server Target Configuration
select Device or DeviceType
Next
Cancel

new Image

connect to : parameter : rw (read/write, removable)

MITSUMI - CD-ROM SR244W

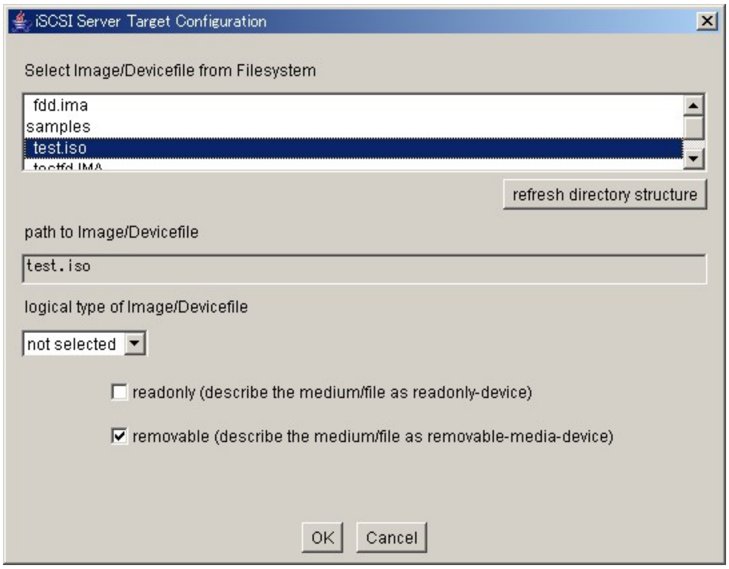
connect to : \\.\E: parameter : class: SCSIDirectSptiDevice scsi: 1/0/0/0 (read/writ

please choose a unique name for new target:

2. Select a media type, enter a target object name in the text box, and click [Next].

   Available media types depend on the hardware configuration of the iSCSI server. They also differ depending on MAS settings.

   Click [Next] to display a window for selecting an image file from the stored image files.



iSCSI Server Target Configuration

Select Image/Devicefile from Filesystem

fdd.ima
samples
test.iso
testfd.IMA

refresh directory structure

path to Image/Devicefile

test.iso

logical type of Image/Devicefile

not selected

□ readonly (describe the medium/file as readonly-device)

☑ removable (describe the medium/file as removable-media-device)

OK Cancel

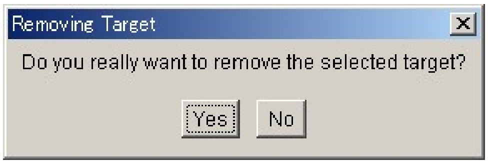
3. Select an image file, select a file type from the [Logical type of image/devicefile] list, and click [OK].

   The [Remote Storage Settings] window appears again.

Removing an iSCSI target object

1. Select a target object to be removed and click [Removing Target].

   A confirmation message appears.



Removing Target

Do you really want to remove the selected target?

Yes No

2. Click [Yes].

   The selected target object is removed.

Changing iSCSI target object settings

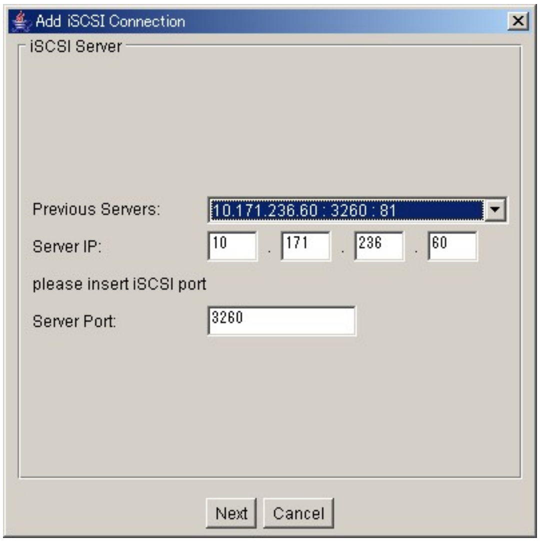
1. Select a target object to be changed and click [Change Target properties].

   A window appears for selecting an image file.

2. Change settings as necessary and click [OK].

8 Click [Add iSCSI Connection].

A window appears for selecting an iSCSI server.



Add iSCSI Connection

iSCSI Server

Previous Servers: 10.171.236.60 : 3260 : 81

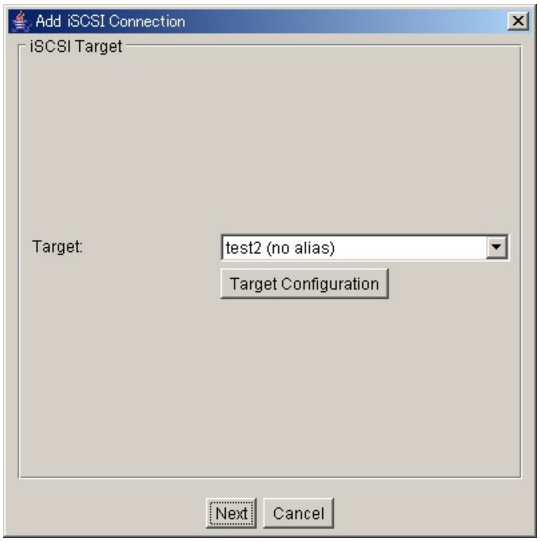
Server IP: 10 . 171 . 236 . 60

please insert iSCSI port

Server Port: 3260

9 Select the iSCSI server set in Step 4 to [Previous Servers] and click [Next].

A window appears for selecting a target object.



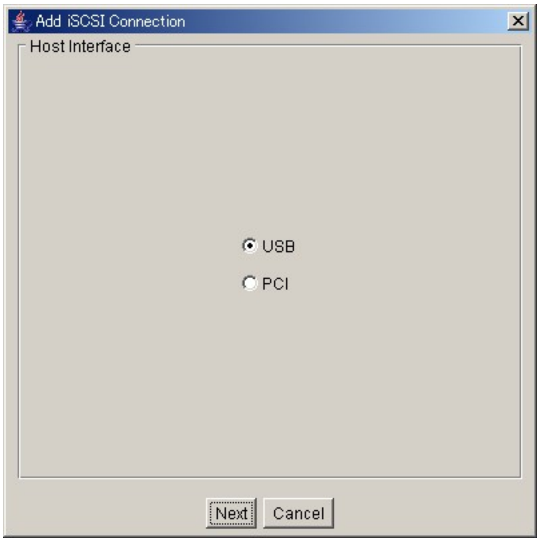
Add iSCSI Connection

iSCSI Target

Target: test2 (no alias)

10 Select the target object created in Step 7 and click [Next].

A window appears for selecting a connection interface.

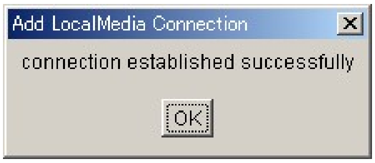


POINT

- The following procedure describes iSCSI connection via USB. For connection via PCI, select [PCI] in the following procedure. Differences between USB and PCI connections are as follows:
  •Virtual CD-ROM via PCI is not supported.
  •To enable remote storages to be recognized via PCI, the server need be restarted.
  •Remote storages via USB are available only when USB legacy devices are supported by the BIOS settings.

11 Select [USB] and click [Next].

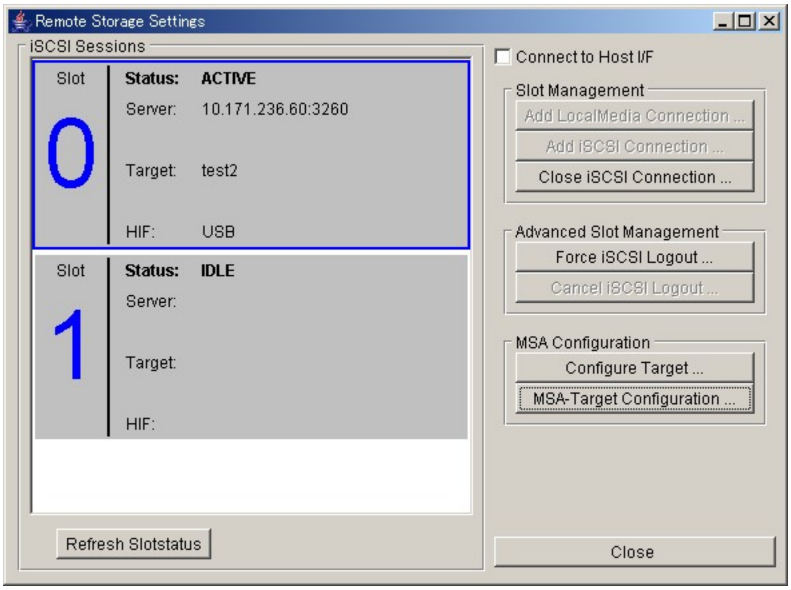
After connection succeeds, the following window appears:


Add LocalMedia Connection

connection established successfully

12 Click [OK] to return to the [Remote Storage Settings] window.

Make sure that the device information has been added.



[ACTIVE] is displayed as the status of a slot in which a device is set and [IDLE] for a slot in which no device is set.

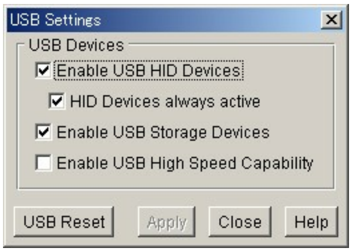
13 Select the slot marked [ACTIVE], check [Connect to Host I/F], and click [Configure Target].

This completes iSCSI connection.

14 Click [Close] to close the [Remote Storage Settings] window.

■ USB Settings

Set up USB functions on the Remote Service Board.



USB Settings

USB Devices

☑ Enable USB HID Devices

☑ HID Devices always active

☑ Enable USB Storage Devices

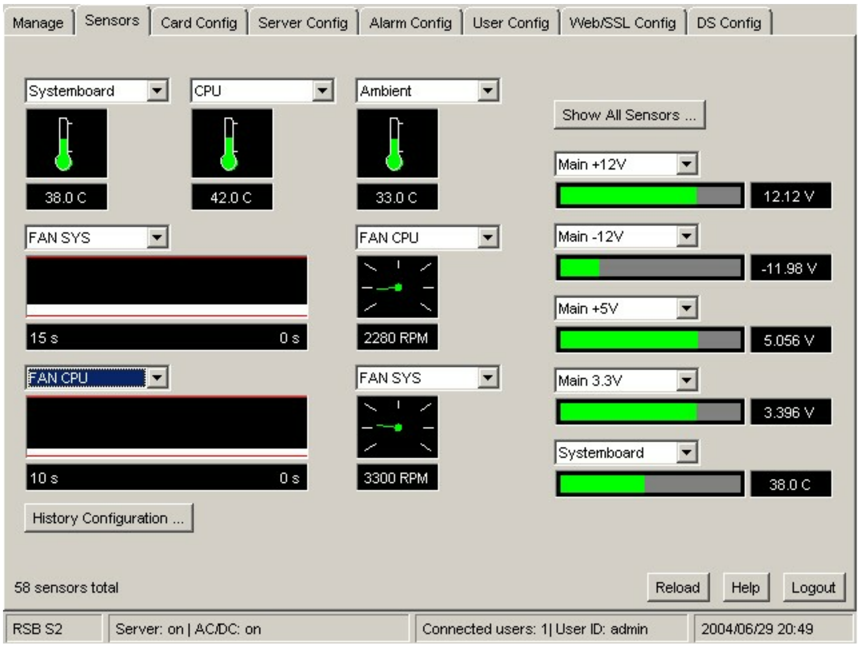
☐ Enable USB High Speed Capability

table: USB Function Settings

Item	Description
Enable USB HID Devices	Enables keyboard and mouse via USB. Make sure to check this checkbox to use AVR.
HID Devices always active	Check this checkbox if USB hot plug is not supported by the server BIOS.
Enable USB Storage Devices	Enables RemoteStorage via USB. Check this checkbox to use RemoteStorage.
Enable USB High Speed Capability	Enables high speed storage for RemoteStorage via USB.

5.3.3 [Sensors] Page

The [Sensors] page is available for viewing values of each sensor of the server.



Systemboard 38.0 C

CPU 42.0 C

Ambient 33.0 C

FAN SYS 15 s 0 s

FAN CPU 2280 RPM

FAN CPU 10 s 0 s

FAN SYS 3300 RPM

Main +12V 12.12 V

Main -12V -11.98 V

Main +5V 5.056 V

Main 3.3V 3.396 V

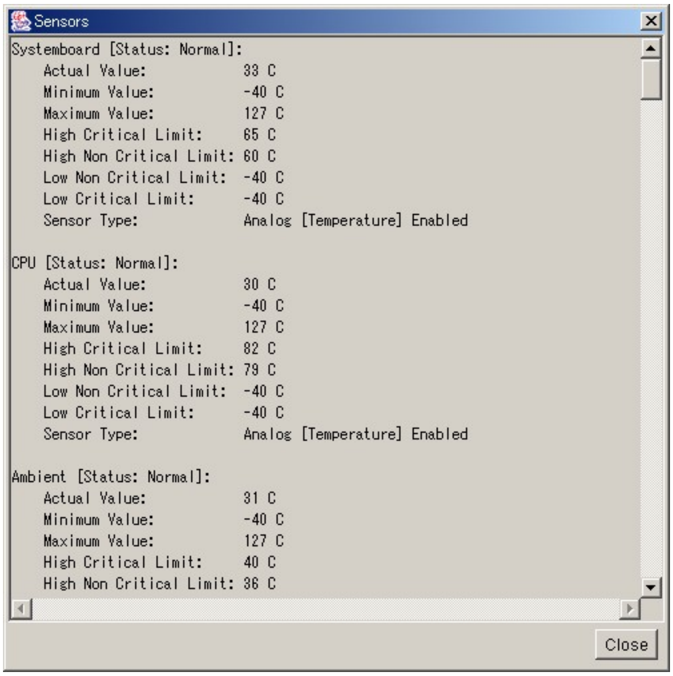
Systemboard 38.0 C

58 sensors total

RSB S2 | Server: on | AC/DC: on | Connected users: 1| User ID: admin | 2004/06/29 20:49

■ [Show All Sensors ...]

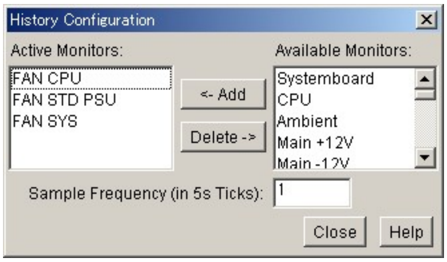
Shows values of all sensors.



```
Systemboard [Status: Normal]:
    Actual Value:             33 C
    Minimum Value:            -40 C
    Maximum Value:            127 C
    High Critical Limit:      65 C
    High Non Critical Limit:  60 C
    Low Non Critical Limit:   -40 C
    Low Critical Limit:       -40 C
    Sensor Type:              Analog [Temperature] Enabled

CPU [Status: Normal]:
    Actual Value:             30 C
    Minimum Value:            -40 C
    Maximum Value:            127 C
    High Critical Limit:      82 C
    High Non Critical Limit:  79 C
    Low Non Critical Limit:   -40 C
    Low Critical Limit:       -40 C
    Sensor Type:              Analog [Temperature] Enabled

Ambient [Status: Normal]:
    Actual Value:             31 C
    Minimum Value:            -40 C
    Maximum Value:            127 C
    High Critical Limit:      40 C
    High Non Critical Limit:  36 C
```

■ [History Configuration ...]

Shows values of a sensor at a certain frequency. The following window appears after [History Configuration ...] is clicked:



Active Monitors:
FAN CPU
FAN STD PSU
FAN SYS

Available Monitors:
Systemboard
CPU
Ambient
Main +12V
Main -12V

Sample Frequency (in 5s Ticks): 1

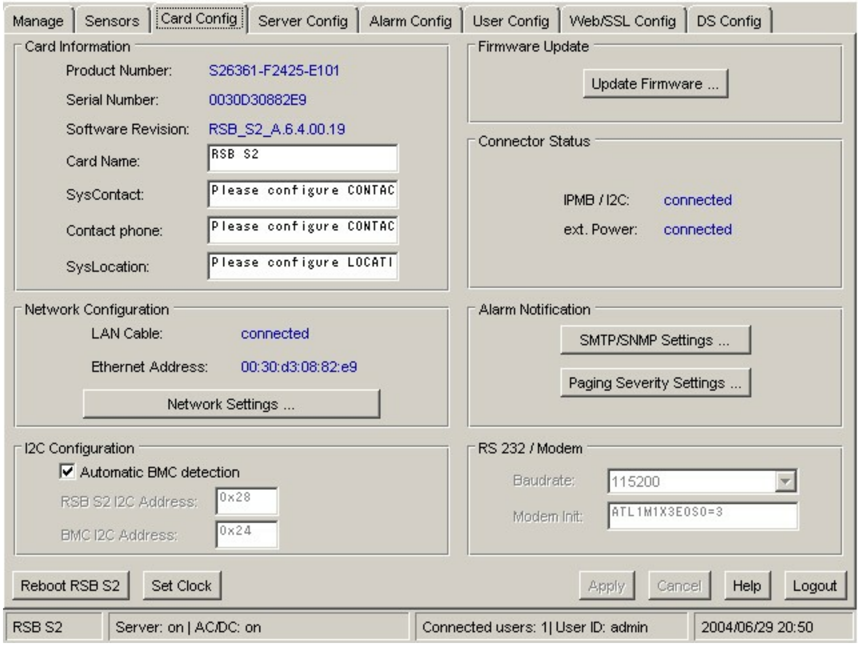
Select a target sensor from [Available Monitors] and click [<-Add] to add it to [Active Monitors]. The added sensor can be selected from the pull-down menu on the upper part of the window.

■ [Reload]

Reloads values of all sensors. The progress is displayed on the lower left of the window.

5.3.4 [Card Config] Page

The [Card Config] page is available for setting the Remote Service Board or checking its state.



Card Information

Product Number: S26361-F2425-E101

Serial Number: 0030D30882E9

Software Revision: RSB_S2_A.6.4.00.19

Card Name: RSB S2

SysContact: Please configure CONTAC

Contact phone: Please configure CONTAC

SysLocation: Please configure LOCATI

Firmware Update

Connector Status

IPMB / I2C: connected

ext. Power: connected

Network Configuration

LAN Cable: connected

Ethernet Address: 00:30:d3:08:82:e9

Alarm Notification

I2C Configuration

☑ Automatic BMC detection

RSB S2 I2C Address: 0x28

BMC I2C Address: 0x24

RS 232 / Modem

Baudrate: 115200

Modem Init: ATL1M1X3E0S0=3

RSB S2 | Server: on | AC/DC: on | Connected users: 1| User ID: admin | 2004/06/29 20:50

table: Functions on the [Card Config] Page

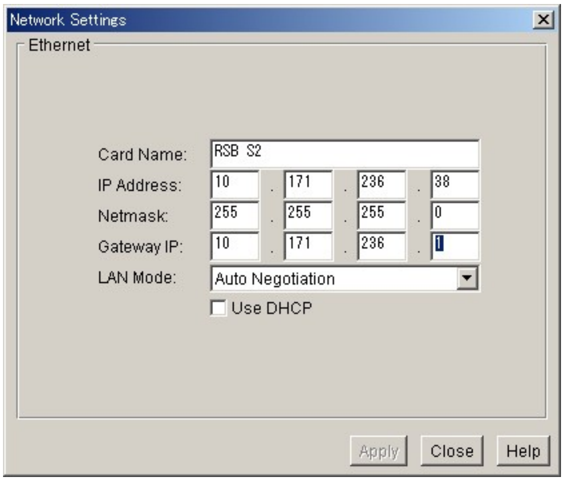
Item		Description
Card Information		Information related to the Remote Service Board.
	Product Number	Displays the product number of the Remote Service Board.
	Serial Number	Displays the serial number of the Remote Service Board.
	Software Revision	Version of the firmware applied to the Remote Service Board.
	Card Name	Sets the name of the Remote Service Board.
	SysContact	Sets an emergency contact.
	Contact Phone	Sets the phone number of the emergency contact.
	SysLocation	Sets location information of the server on which the Remote Service Board is installed.
Network Configuration		Sets the network interface of the Remote Service Board. →"■ Network Settings" (P.229)
	LAN Cable	Displays the connection status of a LAN cable.
	Ethernet Address	Displays the MAC address of the network interface of the Remote Service Board.
I2C Configuration		Available for setting I2C functions.
	Automatic BMC detection	Connects automatically to the BMC on the server. Check this checkbox.
Firmware Update		Updates the firmware of the Remote Service Board. This item is not supported.

table: Functions on the [Card Config] Page

Item	Description
Connection Status	Displays the connection status of the Remote Service Board.
IPMB/I2C	Displays the IPMB/I2C connection status.
Ext.Power	Displays the connection status of an external power supply of the Remote Service Board.
Alarm Notification	Click [SMTP/SNMP Settings ...] to set mail server and SNMP. →"■ SMTP/SNMP Settings" (P.229) Click [Paging Severity Settings ...] to set severities for each group. →"■ Paging Severity Setting" (P.230)
RS 232/Modem	Sets connections with serial port and modem. This item is not supported.

■ Network Settings

Set the IP address of the Remote Service Board.



Network Settings

Ethernet

Card Name: RSB S2

IP Address: 10 . 171 . 236 . 38

Netmask: 255 . 255 . 255 . 0

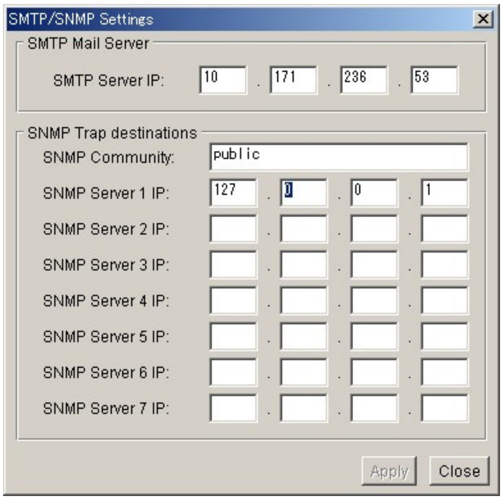
Gateway IP: 10 . 171 . 236 . 1

LAN Mode: Auto Negotiation

□ Use DHCP

■ SMTP/SNMP Settings

Set mail server and SNMP.



SMTP/SNMP Settings

SMTP Mail Server

SMTP Server IP: 10 . 171 . 236 . 53

SNMP Trap destinations

SNMP Community: public

SNMP Server 1 IP: 127 . 0 . 0 . 1

SNMP Server 2 IP: . . .

SNMP Server 3 IP: . . .

SNMP Server 4 IP: . . .

SNMP Server 5 IP: . . .

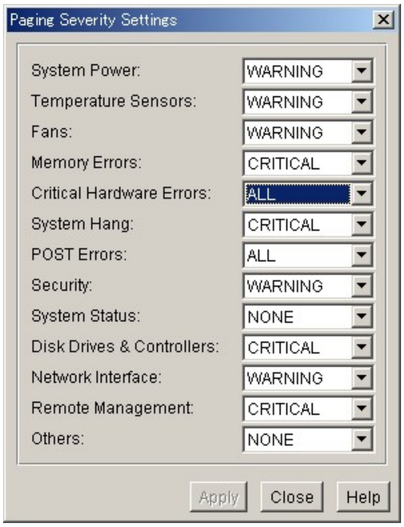
SNMP Server 6 IP: . . .

SNMP Server 7 IP: . . .

- SMTP Server IP
  The Remote Service Board sends mail to the SMTP server set here.
  Use the [Alarm Config] page for detailed settings such as mail destinations.
- SNMP Trap destinations
  Set destination IP addresses of SNMP traps sent by the Remote Service Board.

■ Paging Severity Setting

Set values (severities) to trigger "SNMP trap transmission and SEL writing" for each group.


Paging Severity Settings

System Power: WARNING
Temperature Sensors: WARNING
Fans: WARNING
Memory Errors: CRITICAL
Critical Hardware Errors: ALL
System Hang: CRITICAL
POST Errors: ALL
Security: WARNING
System Status: NONE
Disk Drives & Controllers: CRITICAL
Network Interface: WARNING
Remote Management: CRITICAL
Others: NONE

"SNMP trap transmission and SEL writing" are triggered when each group reaches the set severity. Each severity means as follows:

table: Severity Settings

Item	Description
None	SNMP trap transmission and SEL writing are not triggered.
Critical	SNMP trap transmission and SEL writing are triggered by events at the critical and higher levels.
Warning	SNMP trap transmission and SEL writing are triggered by events at the warning and higher levels.
All	SNMP trap transmission and SEL writing are triggered by all events.

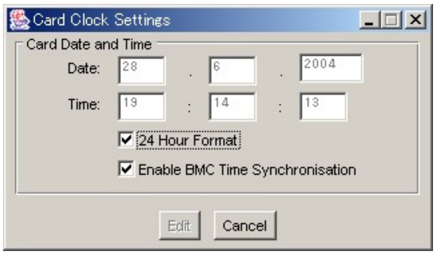
■ [Reboot RSB S2] Button

Reboots the Remote Service Board.
Rebooting disconnects all login users and connection to the Remote Service Board becomes temporarily disabled. After rebooting, do not operate the Web interface until the normal login window appears.

■ [Set Clock] Button

Set the internal clock of the Remote Service Board.

Normally, this setting need not be changed. The following window appears after the [Set Clock] button is clicked:



Card Clock Settings

Card Date and Time

Date: 28 . 6 . 2004

Time: 19 : 14 : 13

☑ 24 Hour Format

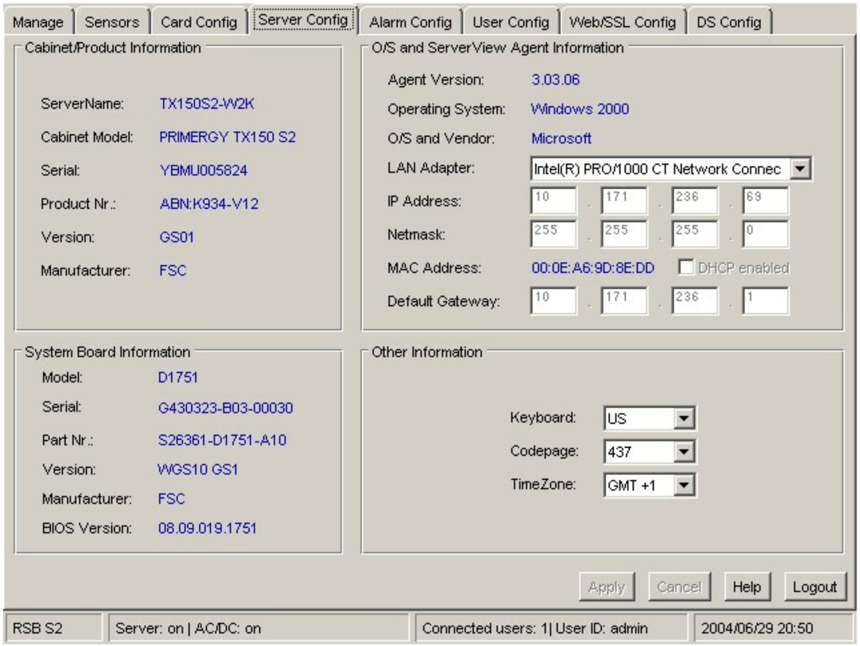
☑ Enable BMC Time Synchronisation

POINT

- The internal clock of the Remote Service Board is always synchronized with the module called "BMC" on the baseboard.
  If the [Enable BMC Time Synchronisation] checkbox is unchecked, the Remote Service Board is no longer synchronized with the BMC and starts to work only with its own internal clock. In such a case, the [Edit] button is enabled so that you can set the time of the internal clock of the Remote Service Board.

5.3.5 [Server Config] Page

Obtains and displays various server information.



Cabinet/Product Information

ServerName: TX150S2-W2K

Cabinet Model: PRIMERGY TX150 S2

Serial: YBMU005824

Product Nr.: ABN:K934-V12

Version: GS01

Manufacturer: FSC

O/S and ServerView Agent Information

Agent Version: 3.03.06

Operating System: Windows 2000

O/S and Vendor: Microsoft

LAN Adapter: Intel(R) PRO/1000 CT Network Connec

IP Address: 10 . 171 . 236 . 69

Netmask: 255 . 255 . 255 . 0

MAC Address: 00:0E:A6:9D:8E:DD □ DHCP enabled

Default Gateway: 10 . 171 . 236 . 1

System Board Information

Model: D1751

Serial: G430323-B03-00030

Part Nr.: S26361-D1751-A10

Version: WGS10 GS1

Manufacturer: FSC

BIOS Version: 08.09.019.1751

Other Information

Keyboard: US

Codepage: 437

TimeZone: GMT +1

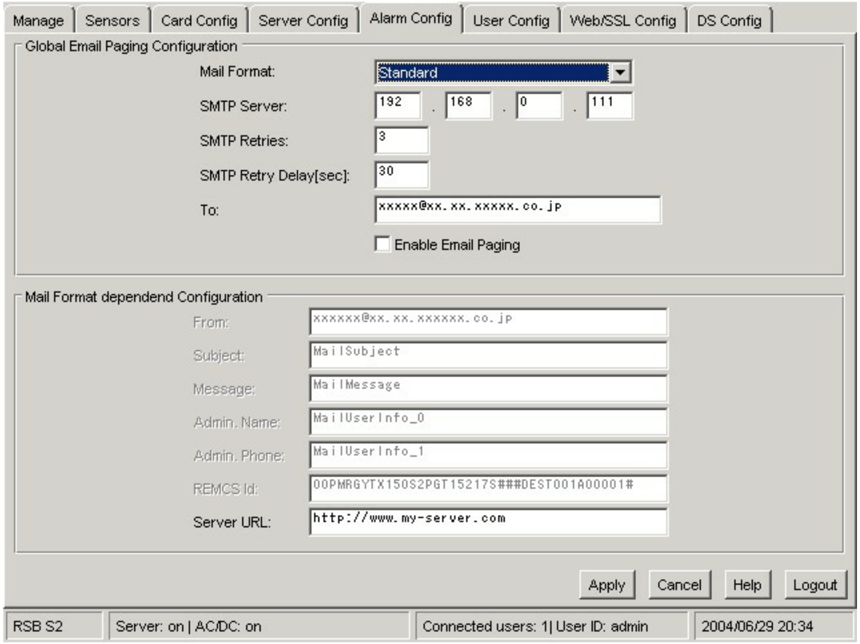
RSB S2 | Server: on | AC/DC: on | Connected users: 1| User ID: admin | 2004/06/29 20:50

table: Functions on the [Server Config] Page

Item		Description
Cabinet/Product Information		Displays cabinet/product information.
	Server Name	Displays the server name.
	Model	Displays the model name.
	Serial	Displays the serial number.
	Product Nr	Displays the product number.
	Version	Displays version information.
	Manufacturer	Displays the manufacturer name.
System Board Information		Displays baseboard information.
	Model	Displays the model name.
	Serial	Displays the serial number.
	Part Nr	Displays the part number.
	Version	Displays version information.
	Manufacturer	Displays the manufacturer name.
	BIOS Version	Displays the BIOS version.
O/S and ServerView Agent Information		Displays OS and ServerView Agent information.
	Agent Version	Displays the Agent version.
	Operating System	Displays the OS name.
	O/S and Vendor	Displays the OS vendor name.
	LAN Adapter	Displays the name of the LAN adapter installed on the server. If there are more than one LAN adapters, you can view information on each adapter by switching them using the pull-down menu.
	IP Address	Displays the IP address.
	Netmask	Displays the IP of the subnet mask.
	Gateway	Displays the IP of the gateway.
	MAC Address	Displays the MAC address.
	DHCP enabled	Displays whether DHCP is enabled or disabled.
Other Information		Available for setting keyboard, time zone, etc.
	Keyboard	Set the language of the keyboard.
	Codepage	Set the code page used on the server.
	TimeZone	Set the time zone.

5.3.6 [Alarm Config] Page

Set alarm functions.



Global Email Paging Configuration

Mail Format: Standard

SMTP Server: 192 . 168 . 0 . 111

SMTP Retries: 3

SMTP Retry Delay[sec]: 30

To: xxxxx@xx.xx.xxxxx.co.jp

□ Enable Email Paging

Mail Format dependend Configuration

From: xxxxxx@xx.xx.xxxxxx.co.jp

Subject: MailSubject

Message: MailMessage

Admin. Name: MailUserInfo_0

Admin. Phone: MailUserInfo_1

REMCS Id: 00PMRGYTX150S2PGT15217S###DEST001A00001#

Server URL: http://www.my-server.com

RSB S2 | Server: on | AC/DC: on | Connected users: 1| User ID: admin | 2004/06/29 20:34

table: Setting Items on the [Alarm Config] Page

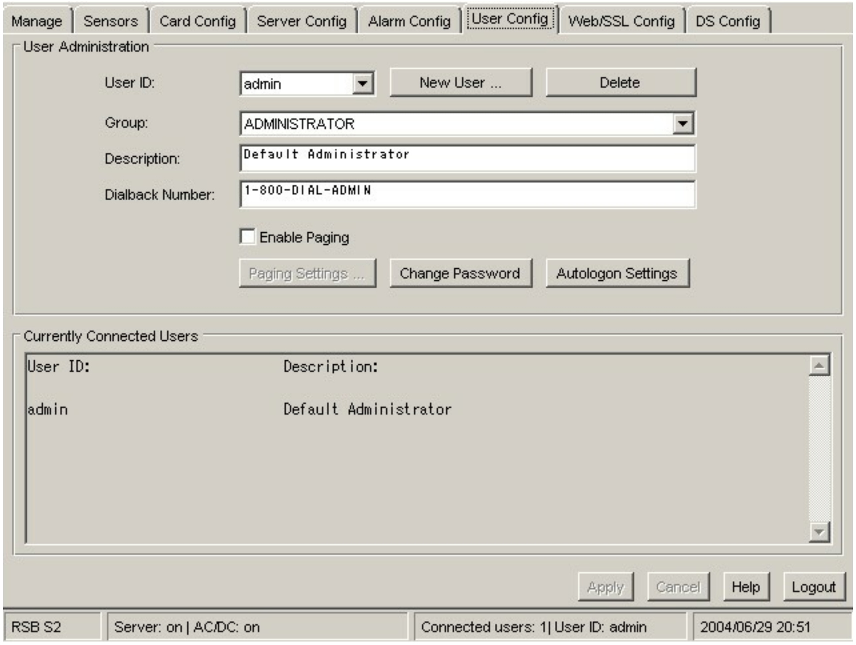
Item	Description
Global Email Paging Configuration	Set various mail items.
Mail Format	Set the mail format used for sending mail. The following formats are available: • Standard (default) • ITS-Format • Fujitsu REMCS Format
SMTP Server	Set the IP address of the SMTP server. The default value is "0.0.0.0".
SMTP Retries	Set the retry count for SMTP transmission. The default value is "3".
SMTP Retry Delay[sec]	Set the interval to retry SMTP transmission in seconds. The default value is "30".
To	Set a destination mail address.
Enable Email Paging	Enables/disables e-mail paging. Check this checkbox to enable paging.

table: Setting Items on the [Alarm Config] Page

Item		Description
Mail Format dependend Configuration		Set various items on the mail format. Available items depend on the mail format.
	From	Set a sender's mail address. Not available when [Standard] is set to [Mail Format].
	Subject	Set a mail subject. Not available when [Standard] or [Fujitsu REMCS Mail] is set to [Mail Format].
	Message	Set any mail message. Not available when [Standard] or [Fujitsu REMCS Mail] is set to [Mail Format].
	Admin.Name	Set an administrator name. Not available when [Standard] or [Fujitsu REMCS Mail] is set to [Mail Format].
	Admin.Phone	Set the phone number of the administrator. Not available when [Standard] or [Fujitsu REMCS Mail] is set to [Mail Format].
	REMCS Id	Set a device ID. Not available when [Standard] or [ITS-Format] is set to [Mail Format].
	Server URL	Set the server URL. Not available when [ITS-Format] or [Fujitsu REMCS Mail] is set to [Mail Format].

5.3.7 [User Config] Page

Set the user account-related items.



User ID: admin

Group: ADMINISTRATOR

Description: Default Administrator

Dialback Number: 1-800-DIAL-ADMIN

□ Enable Paging

```
User ID:                    Description:

admin                       Default Administrator
```

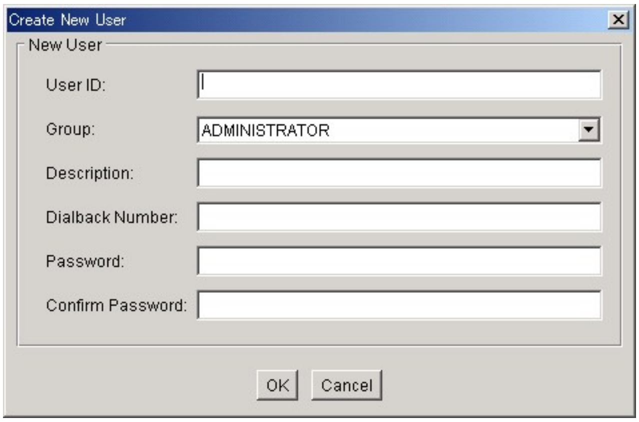
RSB S2 | Server: on | AC/DC: on | Connected users: 1| User ID: admin | 2004/06/29 20:51

table: Functions on the [User Config] Page

Item	Description
User ID	Displays the Agent version. After a user account is selected in the combo box, information on the user account is displayed on the following items.
[New User ...]	Creates a new user. →"■ New User" (P.235)
[Delete]	Deletes the user account displayed in [User ID]. When a confirmation message appears, click [OK].
Group	Displays the name of the group to which the user account selected in [User ID] belongs. It is possible to change the group name to that of another group. The following groups are available: "ADMINISTRATOR", "CALLBACK", "NO_ACCESS", "OEM", "OPARATOR", "USER"
Description	Displays detailed information on the user account selected in [User ID]. It is also possible to modify the current information.
Dialback Number	Displays the phone number of the user account selected in [User ID]. It is also possible to modify the information currently set.
Enable Paging	Check this checkbox to enable mail paging with the user account selected in [User ID].
[Paging Settings ...]	Set the mail paging-related information. This is available only when [Enable Paging] is checked. →"■ Paging Settings" (P.236)
[Change Password]	Changes the password of the user account selected in [User ID]. When clicking [Change Password], the window for changing the password appears. Enter the password and click [OK].
[Autologon Settings]	Enables autologon of the user account selected in [User ID]. →"■ Autologon Settings" (P.237)
Currently Connected Users	Displays information on the users who are currently logging in to the Remote Service Board. • User ID: User account • Description: Detailed information

■ New User

When [New User] is clicked, the following window appears. Set each item to create a new user account.



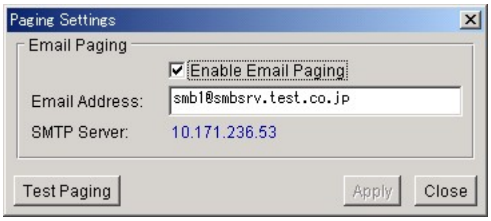
Group: ADMINISTRATOR

table: Setting Items for a New User Account

Item	Description
UserID	Set a user account name.
Group	Set the name of the group to which the user account will belong. Select "ADMINISTRATOR", "CALLBACK", "NO_ACCESS", "OEM", "OPARATOR", or "USER".
Description	Set detailed information on the user account.
Dialback Number	Set the phone number of the user account.
Password	Set the password of the user account.
Confirm Password	Enter the above password again.

■ Paging Settings

When [Paging Settings ...] is clicked, the following window appears. If any specified event occurs, you may receive email paging.



☑ Enable Email Paging

Email Address: smb1@smbsrv.test.co.jp

SMTP Server: 10.171.236.53

The following settings are required to enable email paging:

table: Setting Items for Mail Paging

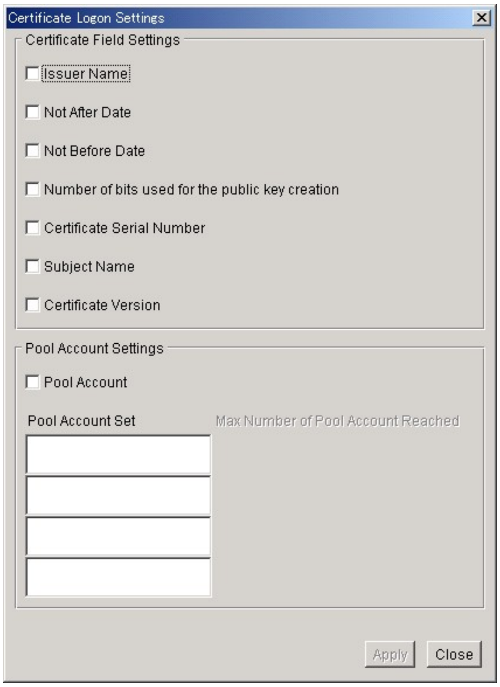
Item	Description
[Enable Email Paging]	Check this checkbox to enable it.
Email Address	Set the user's e-mail address.

POINT

- In [SMTP Server], the IP address of the SMTP server is displayed.
  This is the value set in [SMTP/SNMP Settings] on the [Card Config] page.
- Click [Test Paging] to test email transmission.

■ Autologon Settings

When [Autologon Settings] is clicked, the following dialog appears for enabling autologon for the user account selected in [User ID].



Certificate Logon Settings

Certificate Field Settings

□ Issuer Name

□ Not After Date

□ Not Before Date

□ Number of bits used for the public key creation

□ Certificate Serial Number

□ Subject Name

□ Certificate Version

Pool Account Settings

□ Pool Account

Pool Account Set

Max Number of Pool Account Reached

The following settings are necessary to enable autologon. Define which fields of the user certificate will be used by the Remote Service Board during autologon.

Select from the following:

- Issuer Name
- Not After Date
- Not Before Date
- Number of bits used for the public key creation
- Certificate Serial Number
- Subject Name
- Certificate Version

IMPORTANT

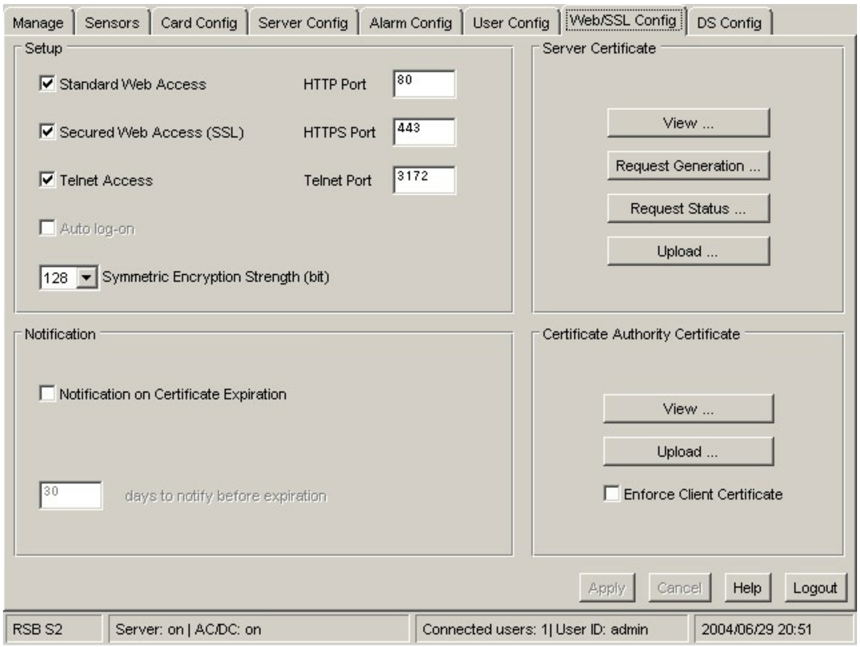
- Make sure to select two or more from the following items:
  - Issuer Name
  - Certificate Serial Number
  - Subject Name

POINT

[Pool Account] checkbox

- Check the [Pool Account] checkbox to allow multiple users to use the displayed account.

5.3.8 [Web/SSL Config] Page



Setup

☑ Standard Web Access HTTP Port 80

☑ Secured Web Access (SSL) HTTPS Port 443

☑ Telnet Access Telnet Port 3172

□ Auto log-on

128 Symmetric Encryption Strength (bit)

Notification

□ Notification on Certificate Expiration

30 days to notify before expiration

□ Enforce Client Certificate

RSB S2 | Server: on | AC/DC: on | Connected users: 1 | User ID: admin | 2004/06/29 20:51

The [Web/SSL Config] page has the following functions:

table: Functions on the [Web/SSL Config] Page

Item	Description
Setup	Set the port numbers of HTTP and Telnet to access the Remote Service Board.
Standard Web Access	Enables/disables HTTP access. If checked it is possible to perform HTTP access to the Remote Service Board.
HTTP Port	Set the port number for HTTP. The default value is "80".
Secured Web Access (SSL)	Enables/disables HTTPS (SSL) access. If checked, it is possible to do HTTPS (SSL) access to the Remote Service Board.
HTTPS Port	Set the port number for HTTPS. The default value is "443".
Telnet Access	Enables/disables Telnet access. This function is not supported for the Remote Service Board (PG-RSB102).
Telnet Port	Set the port number for Telnet. The default value is "3172".
Auto log-on	Enables/disables autologon. If checked. it is possible to autologon to the Remote Service Board. This is available only when [Enforce Client Certificate] is checked in [Certificate Authority Certificate].
Symmetric Encryption Strength (bit)	Set the encryption strength. Select "40" or "128". The default is "128".
Notification	Set whether to notify the user of certificate expiration.
Notification on Certificate Expiration	Enables/disables notification on certificate expiration. If checked, certificate expiration is notified to the login user.
days to notify before expiration	Set the certificate expiration period. The default value is "30".

table: Functions on the [Web/SSL Config] Page

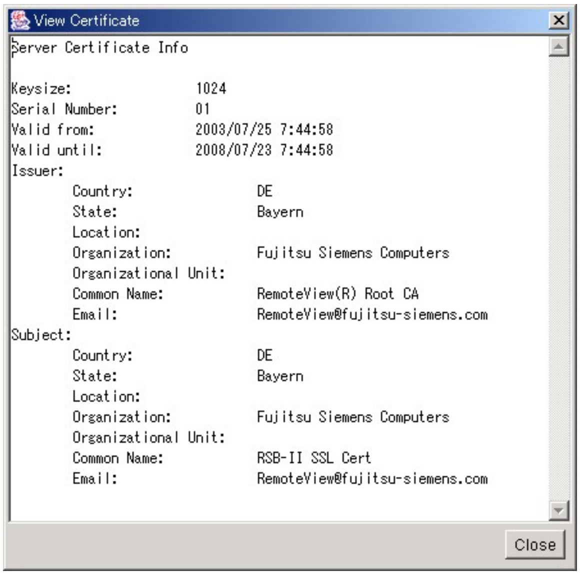
Item	Description
Server Certificate	Controls the server certificate. For more details, refer to "■ Server Certificate" (→pg.239).
[View ...]	Displays information on the server certificate to be used next time the Remote Service Board is rebooted.
[Request Generation ...]	Generates a new server certificate.
[Request Status ...]	Displays the status for server certification requests.
[Upload ...]	Updates the server certificate.
Certificate Authority Certificate	Controls the CA certificate. For more details, refer to "■ Certificate Authority Certificate" (→pg.241).
[View ...]	Displays information on the CA certificate to be used next time the Remote Service Board is rebooted.
[Upload ...]	Updates the CA certificate.
Enforce Client Certificate	If checked, it is allowed the user having the client certificate installed on the Web browser to connect to the Remote Service Board using SSL.

■ Server Certificate

Available for controlling the server certificate.

● View ...

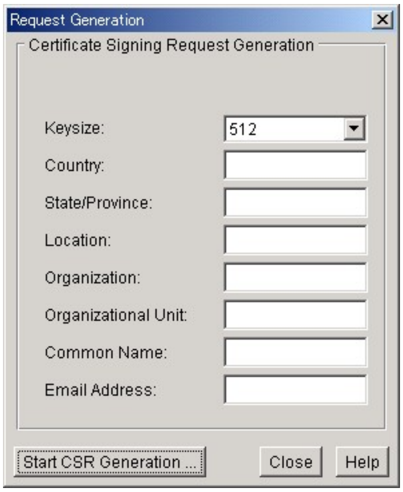
Displays information on the server certificate to be used next time the Remote Service Board is rebooted.



```
Server Certificate Info

Keysize:                1024
Serial Number:          01
Valid from:             2003/07/25 7:44:58
Valid until:            2008/07/23 7:44:58
Issuer:
        Country:                DE
        State:                  Bayern
        Location:
        Organization:           Fujitsu Siemens Computers
        Organizational Unit:
        Common Name:            RemoteView(R) Root CA
        Email:                  RemoteView@fujitsu-siemens.com
Subject:
        Country:                DE
        State:                  Bayern
        Location:
        Organization:           Fujitsu Siemens Computers
        Organizational Unit:
        Common Name:            RSB-II SSL Cert
        Email:                  RemoteView@fujitsu-siemens.com
```

● Request Generation

Generates a new server certificate.
Set each item in the [Request Generation] window and then click [Start CSR Generation ...].


Request Generation

Certificate Signing Request Generation

Keysize: 512

Country:

State/Province:

Location:

Organization:

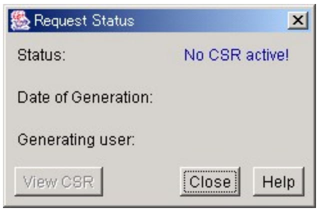
Organizational Unit:

Common Name:

Email Address:

● Request Status ...

Displays the current status for server certification requests.


Request Status

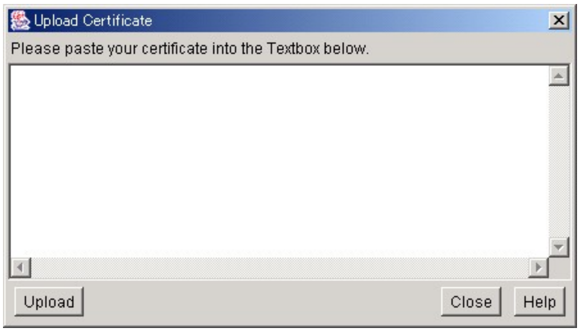
Status: No CSR active!

Date of Generation:

Generating user:

● Upload ...

Updates the server certificate.


Upload Certificate

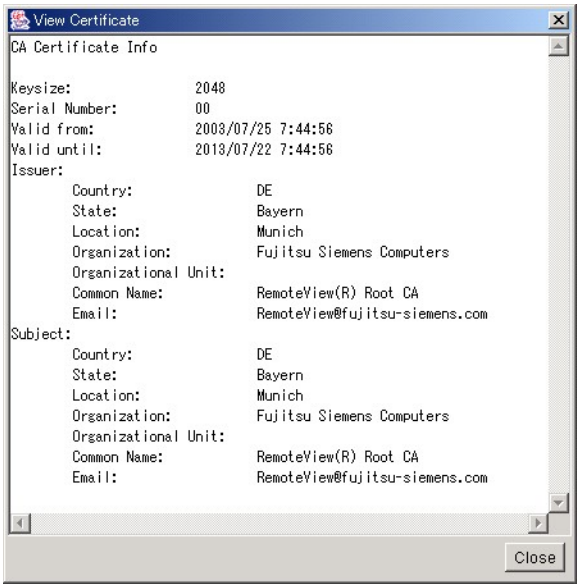
Please paste your certificate into the Textbox below.

■ Certificate Authority Certificate

Available for controlling the CA certificate.

● View...

Displays information on the CA certificate to be used next time the Remote Service Board is rebooted.



```
CA Certificate Info

Keysize:                2048
Serial Number:          00
Valid from:             2003/07/25 7:44:56
Valid until:            2013/07/22 7:44:56
Issuer:
        Country:                DE
        State:                  Bayern
        Location:               Munich
        Organization:           Fujitsu Siemens Computers
        Organizational Unit:
        Common Name:            RemoteView(R) Root CA
        Email:                  RemoteView@fujitsu-siemens.com
Subject:
        Country:                DE
        State:                  Bayern
        Location:               Munich
        Organization:           Fujitsu Siemens Computers
        Organizational Unit:
        Common Name:            RemoteView(R) Root CA
        Email:                  RemoteView@fujitsu-siemens.com
```

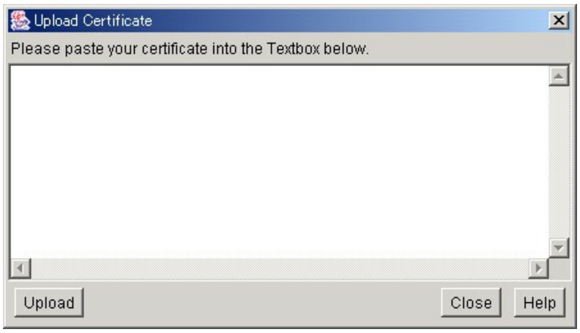
● Upload...

Updates the CA certificate. Perform the following procedures to update it:

1 Copy and paste the certificate sent from the CA in the text box on the [Upload Certificate] dialog.

2 Click [Upload] on the bottom of the window.

The updated certificate is enabled after the Remote Service Board is rebooted.



Please paste your certificate into the Textbox below.

● Enforce Client Certificate

If checked, it is allowed the user having the client certificate installed on the Web browser to connect to the Remote Service Board using SSL.

IMPORTANT

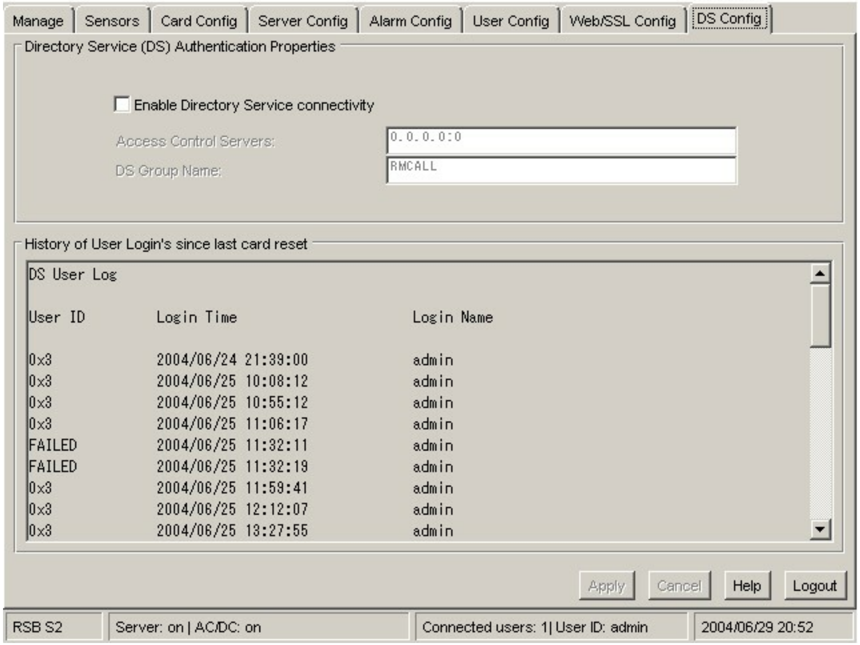
- When the [Enforce Client Certificate] checkbox is checked, it is not possible to log in to the Remote Service Board without the client certificate. In such a case, access to the Remote Service Board menu during server boot (press the [F3] key) and change the setting.

5.3.9 [DS Config] Page

The directory service (DS function) component is a database for existing directory services, which is available for managing users accessing to the Remote Service Board.
When a user tries to log in to the Remote Service Board, the Remote Service Board checks whether the user is included in its internal database.
If the user is not included in the database and the DS function is enabled, the Remote Service Board requests the existing user from the Access Control Servers.
Following users can log in to the Remote Service Board:

- Users being managed in the internal database of the Remote Service Board
- Users belonging to a group registered with the directory service database

The [DS Config] page has the following functions:



Directory Service (DS) Authentication Properties

□ Enable Directory Service connectivity

Access Control Servers: 0.0.0.0:0

DS Group Name: RMCALL

History of User Login's since last card reset

```
DS User Log

User ID      Login Time               Login Name

0x3          2004/06/24 21:39:00      admin
0x3          2004/06/25 10:08:12      admin
0x3          2004/06/25 10:55:12      admin
0x3          2004/06/25 11:06:17      admin
FAILED       2004/06/25 11:32:11      admin
FAILED       2004/06/25 11:32:19      admin
0x3          2004/06/25 11:59:41      admin
0x3          2004/06/25 12:12:07      admin
0x3          2004/06/25 13:27:55      admin
```

RSB S2 | Server: on | AC/DC: on | Connected users: 1| User ID: admin | 2004/06/29 20:52

table: Functions on the [DS Config] Page

Item	Description
Directory Service (DS) Authentication Properties	Set directory service authentication properties.
Enable Service Directory connectivity	If checked, it is possible to set the server and group for which connection is allowed.
Access Control Servers	Set the IP address of the Access Control Server or the server name, and the port number to which the ACS software of the Remote Service Board responds. • for example 192.168.1.1:7777 server.yourcompany.com:8888 Multiple values can also be specified as follows: 192.168.1.1:7777, server.yourcompany.com:8888
DS Group Name	Set the name of the directory service group to which the directory service group belongs.
History of User Login's since last card reset	Displays the history of the login user. This history is cleared when the Remote Service Board is rebooted. The following information is displayed: • User ID • Login time • Login name

Appendix

This chapter explains supplementary information such as troubleshooting and how to uninstall ServerView.

A Troubleshooting

This section explains notes for using ServerView and error messages.

A.1 Troubleshooting of Installation Script

Installation script displays an error message when it detects an installation error.

If the error is not resolved by the corrective actions below, refer to "■ Installing ServerView Linux manually" (→pg.38) and perform the installation without using the installation script.

table: Error messages of installation script

Error No.	Error messages
	Cause and corrective action
1001	login user is not root! Please try again as root.
	The log in user is not a superuser. Log in again as a superuser and execute ServerView's installation script.
1002–1003	kernel version is under 2.4
	The installation failed because the kernel version is less than 2.4.
1004	Not supported Distribution.
	This distribution is not supported.
1005	Available disk space is not enough.
	Not enough free disk space.
1006–1999	kernel version is under X.X.XX
	The installation failed because the kernel version is less than X.X.XX. For the kernel version supported by PRIMERGY, refer to our information Website (http://primergy.fujitsu.com).
2001–2999	"***" package is not installed.
	The RPM package that is required for installing ServerView has not been installed. After installing the "***" RPM package from Red Hat Linux CD-ROM, execute ServerView's installation script. For details on how to install RPM package, refer to "■ Installing ServerView Linux manually" (→pg.38).
3001–3005	fail to uninstall XXX. (XXX is a RPM name)
	Error occurred during the uninstallation of XXX. After the uninstallation with "rpm -e XXX" command is done, execute ServerView's installation script.
4101	failure in "mv" command.
	Error occurred in the Linux system command. Refer to "■ Installing ServerView Linux manually" (→pg.38) and then perform the installation.
4102	/etc/snmp/snmpd.conf is not exist.
	The setting file of the SNMP service was not found. After the command below is executed, execute ServerView's installation script. # cp /mnt/cdrom/Svmanage/Linux/snmpd.conf /etc/snmp/snmpd.conf

table: Error messages of installation script

Error No.	Error messages
	Cause and corrective action
4103– 4401	failure in "***" command.
	Error occurred in the Linux system command. Refer to "■ Installing ServerView Linux manually" (→pg.38) and then perform the installation.
4402	failure in "/etc/rc.d/init.d/snmpd start" command.
	Failed to start up the snmp service. Check whether the /etc/rc.d/init.d/snmpd file exists. If it does not exist, re-install the RPM package of net-snmp (or ucd-snmp for RHEL-AS2.1(x86) / ES2.1(x86)) from Red Hat Linux CD-ROM and then execute ServerView's installation script. For details on how to install RPM package, refer to "■ Installing ServerView Linux manually" (→pg.38).
6000	"srvmagt-mods_src" installation failed.
	Failed to install ServerView Agent (srvmagt-mods_src). After the command below is executed, try to install srvmagt-eecd again. rpm -e srvmagt-agents rpm -e srvmagt-eecd rpm -e srvmagt-mods_src #cd /mnt/cdrom/Svmanage/Linux/Agent/ # rpm -i srvmagt-mods_src-X.XXXX.redhat.rpm # rpm -i srvmagt-eecd-X.XXXX.redhat.rpm # rpm -i srvmagt-agents-X.XXXX.redhat.rpm (X.XX-XX means version number.) # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start
6001	"srvmagt-eecd" installation failed.
	Failed to install ServerView Agent (srvmagt-eecd). After the command below is executed, try to install srvmagt-eecd again. # rpm -i /mnt/cdrom/Svmanage/Linux/Agent/srvmagt-eecd-X.XX- XX.redhat.rpm (X.XX-XX means version number.) # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start
6002	"srvmagt-agents" installation failed.
	Failed to install ServerView Agent (srvmagt-agents). After the command below is executed, try to install srvmagt-agents again. # rpm -i /mnt/cdrom/Svmanage/Linux/Agent/srvmagt-agents-X.XX- XX.redhat.rpm (X.XX-XX means version number.) # groupadd svuser # cp /mnt/cdrom/Svmanage/Linux/config /etc/srvmagt/config # chmod 644 /etc/srvmagt/config # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start

table: Error messages of installation script

Error No.	Error messages
	Cause and corrective action
6003	"AlarmService" installation failed.
	Failed to install AlarmService. After the command below is executed, try to install AlarmService again. #cd /mnt/cdrom/Svmanage/Linux/ENGLISH/Sv/ # ./InstallAlarmService.sh AlarmServiceStarter-X.X-X.i386.rpm (X.X-X means version number.)
6004	"WebExtension" installation failed.
	Failed to install WebExtension. After the command below is executed, try to install WebExtension again. # cd /mnt/cdrom/Svmanage/Linux/ENGLISH/WebExt/ # ./InstallWebExtension.sh WebExtensionStarter-X.X-X.i386.rpm (X.X-X means version number.)
7001	failure in "groupadd" command.
	Failed to create a group. Execute the command below. # groupadd svuser
7002	failure in copy default config file.
	Failed to copy the default setting file of the ServerView Agent. Execute the command below. # cp /mnt/cdrom/Svmanage/Linux/config /etc/srvmagt/ config # chmod 644 /etc/srvmagt/config # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start
7003	failure in \"chmod\" command.
	Failed to change the privilege of the /etc/srvmagt/config file. Execute the command below. #chmod 644 /etc/srvmagt/config
7004 7006	failure in "cd /" command.
	Failed to change the current directory. Execute the command below. # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start
7008	failure in "/etc/rc.d/init.d/srvmagt start" command.
	Failed to start up ServerView Agent (srvmagt-agents). Execute the command below. # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start

table: Error messages of installation script

Error No.	Error messages
	Cause and corrective action
7009	failure in "/etc/rc.d/init.d/eecd start" command.
	Failed to start up ServerView Agent (srvmagt-eecd). Execute the command below. # cd / # /etc/rc.d/init.d/srvmagt stop # /etc/rc.d/init.d/eecd stop # /etc/rc.d/init.d/eecd start # /etc/rc.d/init.d/srvmagt start

A.2 Troubleshooting of Management Console

■ Question and answer about Management Console

● How to specify the server to be monitored

It is required to set the server that communicates through TCP/IP.
When the application is started up, first the [Server List] window appears.
Click [New Server] on the [Server List] window and the server settings become available.
Then, the window for entering the IP address and name of the server appears (refer to "3.1.2 Adding the Monitored Server (Object)" (→pg.71)).

● How to schedule the power on/off

Monitored server operations can be scheduled.
For details about the settings, refer to "■ [Power ON/OFF] Tab" (→pg.95).

IMPORTANT

- This function is not always supported in all servers.
- These settings are also stored in BIOS of the scheduled server.
  When ServerView is uninstalled from the scheduled server, disable the scheduling in advance.
  Uninstalling the ServerView with the scheduling enabled can result in the power off without server OS being shut down during the power off process by the scheduling.

■ Troubleshooting of Management Console

● When the server status is displayed with the uncontrollable icon:

When the [Uncontrollable] icon is displayed before the server name, check the server and Management Console settings.
Follow the steps below to check settings.

1. In the server BIOS settings, make sure that the Server Management setting ([Server] menu) is set to [Enabled].
2. Make sure that the ASR&R function of the BIOS ([Server] menu) has been started up in all devices.
3. Make sure that the Agent has been installed in all server and SNMP service has been started up in all devices.

● The figure of the server is not properly displayed on the [Display Properties] window.

When the display colors have been set less than 256 colors in the [Display Properties], the figure of the server displayed on ServerView or InventoryView window may not be correctly displayed.
To display the figure correctly, use the application in the environment with 65536 colors or more. The operation has still no problem when using with 256 colors. Just the display of the server photograph loses colors.

● Archive file or report file is not created.

If the data has not been stored in the archive file or the file has been incomplete, it might be judged that no free space exists in the disk or ServerView might judge that no free space exists in the disk.
Check the error log file "ArchErr.log" in the Program Files\Fujitsu\F5FBFE01 to verify whether an error occurred in the application. An error dialog will be displayed when ServerView cannot write data into the ArchErr.log file because there is no free space in the disk.
If there are no more free space in the disk, the problem can be solved by moving some files. If free space remains in the disk, restart the ServerView. It is also effective to restart the computer after checking the files.
When the data cannot be stored in the report file, the same reason as above is applicable.

● ServerView does not recognize Remote Service Board although it is installed

The Remote Service Board may not be recognized by ServerView when the OS is started immediately after ServerView or the Remote Service Board is installed.
Restart the OS.

● The [MultiPath] window cannot be opened from ServerView

When the DDM MulitiPath has been installed on Windows NT, the [MultiPath] window cannot be started from the ServerView after the installation of ServerView.
In this case, uninstall ServerView and install it again and then reinstall the DDM MultiPath.

● The model name and so on are displayed as [Unknown].

The model name and so on may be displayed as [Unknown] in ServerView window.
Wait awhile, and click [Update] in the [ServerView] window.
If [Unknown] is still displayed even above step is taken, follow the steps below.

1. Restart the system.
2. Click [Start] → [Programs] → [Fujitsu ServerView Agents] → [Diagnostic Tools] → [Restart ServerView Base Services].
3. Enable the [Search for management hardware] and click [Restart].

IMPORTANT

- Generally, do not start [Restart ServerView Base Services].

● The information is not correctly displayed on [Power/Environment] window.

On [Power/Environment] window, it takes some time to display the information correctly.
Wait a while, and try the operation again.

● The contents of the error message buffer is not displayed.

The contents of the error message buffer may not be displayed on [Action] window.
Wait a while, and try the operation again.

● ServerView start-up error has occurred

When a ServerView error has occurred, remove the "CTTxxxx.tmp" (xxxx = 0000 - FFFF) file under the ServerView directory.

● Device is not displayed

When you select [Adaptec/DPT SCSI Raid 3200 Controller] for the adapter name of the external storage device and display it in the [Display Devices] window, make sure the display for each slot.
The display of the system driver on the adapter is not supported in the [Display Devices] window.

● The rebuilt status in ServerView is not displayed.

In RAID0+1 configuration, the rebuilt status in ServerView is not displayed (0% view).
Use RAIDmanager to check rebuilt status (StorageManager).

● [System Identification LED Display] is not displayed.

When the monitor target server type is PRIMERGY C150:

There is no system identification LED in C150.

When the monitor target server type is other than PRIMERGY C150:

Follow the steps below to restart the agent and then the [System Identification LED Display] will be displayed.

1. Click [Start] → [Programs] → [Fujitsu ServerView Agents] → [Diagnostic Tools] → [Restart ServerView Base Services].
   The [Restart Services] window appears.

2 Click [Restart].

3 When the restart has finished, the message "Restart Services completed successfully!" is displayed. Click [Exit].

IMPORTANT

- Generally, do not start [Restart ServerView Base Services].

● A message "The server is uncontrollable" is displayed

If the load of the network or the computer is high, the process would not finish within the time and [Uncoltrollable] icon would be displayed.
In this case, you can follow the steps below to change polling intervals, timeout value, and update intervals to reduce the load or extend the timeout value.

1 Right-click the server having trouble on the [Server List] and select [Server Properties] → [Network/SNMP] from the menu displayed.

2 Change the setting values to the environment.

table: Setting values of Network/SNMP

Item	Description
Polling intervals	The time interval for polling the server. The server is requested to send the system information for each interval time specified here (default is 60 sec).
Timeout	Time to wait the server’s response to the request (default is 5 sec).
Update interval	Interval to update the display contents (default is 60 sec).

IMPORTANT

- The appropriate values differ depending on the load status. Try to set values a few times to determine the most suitable values.
- When the timeout value is set to too large, the response will be delayed in real uncontrollable situations. Do not set too large value (more than 12 sec).

● Double start up of GAM client

When you try to open the GAM client from the ServerView (click [Setting] on the external storage device window) during the GAM client of the SCSI RAID Ctrl 2-Channel 128MB w/ BBU (PG-142E) is opened, the following message is displayed. Close this message window since there is no problem for the operation.

```
Can't write Profile for error #123
```

- Meaning: The syntax of file name, directory name, or volume label is incorrect.

● In spite of the status icon of the power/environment group being normal, individual voltage sensor or temperature sensor status sometimes shows abnormality (voltage: below the lower limit / exceed the upper limit. Temperature: yellow/red)

Even if the voltage/temperature sensor value returned from abnormal value to normal value (within threshold), the sensor status continues to show the abnormal status as-is until the value returns within the fixed value. This is provided to prevent the voltage/temperature abnormal event or normal event frequently occurring when the voltage/temperature value transition occurs in the vicinity of threshold (generally this fixed value is called as hysteresis).
On the other hand, this phenomenon occurs since the icon in the voltage/temperature group displays the normal icon regardless of the hysteresis if the voltage/temperature sensor value is within the threshold.
Even if this phenomenon occurs, the voltage/temperature value is normal and there is no specific problem.

■ Notes for Management Console

● Keyboard operation

The shortcut key or the Tab key may not work properly. Use the mouse for operation.

● Window operation

In window menu, do not arrange the windows lengthways. The screen may look odd.

● Exit operation of ServerView Management Console

When you exit the Management Close, exit all opened ServerView windows.

● Multi-bit error in memory module

When the multi-bit error (uncorrectable) occurs in the memory module, the error may not be reported since the OS will not be able to operate depending on the location or the timing of the error.

● Action setting for external storage devices

Action setting at fan and temperature failure against external storage device is disabled.

● Restriction for table name of report or threshold

Text which contains a space character can not be used in the table name of the report or the threshold. The table can be created but cannot be deleted or started since it cannot be selected.

● Device view window

The tape device is not displayed in the device view window when the 4mmdat.sys (tape device driver) is not installed in Windows NT.

● [Memory Module] window

The bank number may not be displayed properly.

● [Action] window

When you select [Restart] or [Shutdown & off] in restart option and specify "0" minute (immediately shut down), the execution of Abort Shutdown immediately after you specify the time will be disabled.

● WOL (Wakeup On LAN) function

When you turn on the server unit through the LAN from the client by the WOL (Wakeup On LAN) function, [N/A] may be displayed for the [Power-on Factor] on the [Action] window.

● [Operating System] window

When OS is Windows, the [Current Session] and the [Peak Session] on the [Operating System] window is unsupported.

● Trap settings

Do not enable the following traps on the [Server Properties] window. When it is enabled, the alarm may continue to occur (refer to "● Storing event log" (→pg.260)).

- Error entry in eventlog
- Warning entry in eventlog
- Information entry in eventlog
- Failure entry in eventlog
- Success entry in eventlog

● Report Manager operation

- Do not enter the data of more than 256 characters into the report note. When more than 256 characters are entered, the data of the 256th character and all following characters are ignored.
- In the [Text Display of Report], the screen looks odd when you perform printing, however, it does not affect the system operation.

● Display operations of the report graph

- Set the display operations of the report graph separately. The contents to be displayed are not guaranteed when multiple report graphs are set up at the same time.
- When you display a report graph of the report whose status is running in the report list, the report graph may not be displayed properly. Reselect the report graph in the report list and display it again.

● Threshold monitoring

When the threshold monitoring is performed on the server, the processes shown below is performed.

- ServerView Management Console saves the threshold table of the server.
- The server (agent) obtains the setting request and monitors the variables of the table.

This information is retained in the Management Console and the server, the inconsistency may occur in the following situations.

When the Management Console server has been deleted without stopping the threshold and then a new server is created:

In this case, the Management Console does not show that the server is having the threshold currently and the server continues to monitor the threshold. Therefore, stop the threshold on the Management Console side by using the threshold manager or reinstall the agent.

When the agent does not monitor the values since shut down or reinstallation might have occurred:

In this case, the Management Console shows that the server is having the threshold currently and the server does not have the threshold. Therefore, stop the threshold for the server on the Management Console side by using the threshold manager and reinstall as necessary.
For details about threshold, refer to the following information.
[System drive]: \Program Files\Fujitsu\F5fbfe01\Thresh.hlp

● Operation in [ASR Properties] window

- The [Beeper] tab is unsupported.
- When you select any [FAN] and specify [Continues to operate] and then click [Settings], the message "Specified seconds for the shut down waiting time is out of range" may be displayed. Perform the setting process again.
- When you select any [FAN] and specify [Shut down], perform the setting for all enabled fans.
- When you set the shut down time for the CPU0 fan failure in the [FAN] setting, the popup message may be displayed. Perform the setting again.
- Do not open the multiple [ASR Properties] windows at one time.
- Do not perform the operation when the archive data is being displayed.

● Status icon display in ServerView

When the following conditions are met, the status icons become failure status.

- In the monitored servers
- When starting OS
- The period until all ServerView monitoring programs start

When the monitoring server is operating properly and all ServerView monitoring programs start, the icons are displayed properly.

● [External Storage Devices] window

- [Connection Slot Adapter] may not be displayed properly. Wait awhile, and try to display the window again.
- [Number of Connected Devices] may not be displayed properly. On the [Display Devices] window, verify the [Number of Connected Devices].
- When you click the [Settings], the folder into which associated application is installed may be displayed.

● [Configuration Information] window

When you display the Recovery Information in the [Configuration Information] window, only the hazardous error (Critical Problems) is displayed in the [Error and event message log:] field.
The other error information can be checked in the [Action] window.

A.3 Troubleshooting of AlarmService

■ Question and answer about AlarmService

● Is the Virtual Machine other than Microsoft VM able to co-exist with Microsoft VM?

ServerView operates properly when Microsoft Virtual Machine (version 5.0.3309 or higher) co-exists with other Virtual Machine (for example, Sun Java VM) on the same machine.

● When I want to use proxy and if I register [localhost] to the exception, does the AlarmService properly operate?

Even if [localhost] is specified, the machine can work properly depending on the system. However, enter machine's own IP address.

● What does the error code of the mail transmission test mean?

When the mail transmission test was performed in the AlarmService and error recover occurred, refer to the following:
When the recover error code is a code other than one shown below, contact us.

table: Errors in the transmission test

Error code	Contents
1:	SMTP server error.
2:	Mail server error, wrong from or to address ?
4001:	Malloc failed (possibly out of memory).
4002:	Error sending data.
4003	Error initializing gensock.dll.
4004:	Version not supported.
4005:	The winsock version specified by gensock is not supported by this winsock.dll.
4006:	Network not ready.

table: Errors in the transmission test

Error code	Contents
4007:	Can't resolve (mailserver) hostname.
4008:	Can't create a socket (too many simultaneous links?).
4009:	Error reading socket.
4010:	Not a socket.
4011:	Busy.
4012:	Error reading socket.
4013:	Wait a bit (possible timeout).
4014:	Can't resolve service.
4015:	Can't connect to mailserver (timed out if winsock.dll error 10060).
4016:	Connection to mailserver was dropped.
4017:	Mail server refused connection.

● Can I save the alarm setting before the Management Console is uninstalled?

The alarm setting will be deleted when the Management Console is uninstalled.
By saving the files shown below before the uninstallation, you can save the action setting for the alarm group.

- For Apache:
  Save the "AlarmFwd_xxx" that exists in the directory below. However, exclude the AlarmFwd_Server(.ini) and the AlarmFwd_Severity(.ini).
  [System drive]: \Program Files\Fujitsu\F5FBFE01\ServerView Services\wwwroot\ServerView\SnmpView\uid\1\snism.dba
- For IIS:
  Save the "AlarmFwd_xxx" that exists in the directory below. However, exclude the AlarmFwd_Server(.ini) and the AlarmFwd_Severity(.ini).
  [System drive]: \Inetpub\wwwroot\ServerView\SnmpView\uid\1\snism.dba

IMPORTANT

- ▸ Since the file format above may be changed in later version, contact us to check the format when the version is updated.

■ Troubleshooting of AlarmService

● AlarmService does not start

In the cases shown below, the AlarmService cannot start.

When the computer name or the IP address has been changed:

If the computer name or IP address of the system is changed after AlarmService has been installed, AlarmSerice will not run correctly.
From the [Start] button, execute [Change Computer Details] (refer to "2.4.8 Changing Computer Information after Installation" (→pg.68)).

When the proxy server has been set:

If a proxy server is set to be used in the Web browser, the AlarmService window may not appear. In the management server or the management terminal, register your IP address in [Exceptions] in the Web browser settings so that a proxy server is not used for connecting to your server.

When AlarmService has been installed without connecting the LAN (for only Windows 2003):

Perform the following steps:

1 Connect the server's LAN.

2 Set server's IP address.

3 Click [Start] → [Programs] → [Fujitsu ServerView] → [ChangeComputerDetails] to set the new computer information.

4 Restart the server.

● When a trap is received, a low virtual memory error occurs

ServicePack may not have been applied.
ServerView requires the TCP/IP protocol and SNMP service. This phenomenon occurs when the Service Pack (SP1 or higher for Windows 2000, SP6a or higher for Windows NT) provided by Microsoft has not been applied after these protocol or service has been installed. Apply the Service Pack again.

● The test trap becomes time out

You can execute the test trap to the server on which ServerView SNMP Agent has been installed properly. The test trap will be time out in the cases shown below.

When the time-out time is short:

The default time-out time may be short depending on the network status. Extend the time-out time after checking the network environment.

When the SNMP service has not been set properly:

Check the following:

- Is the management terminal registered to the trap destination of the SNMP service in the monitored server?
- In the SNMP service security of the monitored server/management terminal, is the right for the community set to [READ CREATE]?
- Did you restart the service after the SNMP service setting was changed?
  To restart the service, click [Start] → [Programs] → [Fujitsu ServerView Agents] → [Diagnostic Tools] → [Restart ServerView Base Services].

When the Agent (SNMP Agent) has not been set properly:

Uninstall the ServerView and install it again.

● The alarm cannot be deleted

When deleting multiple alarms in the alarm manager or the alarm monitor, some alarms may remain. In this case, perform the deletion again.
You can set in the [Shared Settings] window so that the alarm that elapsed the specified days is deleted, however, this deletion is executed when new alarm is received after the specified days have elapsed.

● Script error occurred

When using the alarm manager or the alarm monitor, script error may occur. In this case, exit the AlarmService and restart the Alarm Manager or Alarm Monitor.
When you click [Close] to close the Alarm Manager and did not exit, the script error may occur at the next start up. To close the Alarm Manager, you must click [Close]. In this case, restart also the Alarm Manager.

● The Alarm Manager/Alarm Monitor is not updated automatically

The window of the Alarm Manager/Alarm Monitor may not be updated. In this case, restart the Alarm Manager/Alarm Monitor or read again using update function of the browser.

■ Notes for AlarmService

● Window operation

In each window, do not operate to maximize or restore the standard display. The screen may look odd. When the window looks odd, close the window and restart it again.

● Mail transmission

The mail transfer with MAPI is not supported.
When the test transmission is done, the mail is transmitted to the address specified in the [To:].
It is not transmitted to the address specified in the [Copy].

● Starting multiple [Alarm Settings] windows

Some times multiple [Alarm Settings] windows can be opened, however, please start only one window.

● Exit operation of [Alarm Filter Settings] window

When the [Alarm Filter Settings] window is being opened, close this window before you exit the Alarm Manager.

● Notes when closing the window you are processing

Do not close the window you are currently processing until the process is done completely (for example, when deleting many alarms on the Alarm Monitor). When the window is closed before the process is done completely, the process is canceled and does not work properly.

● RomPilot trap

In the alarm regarding the RomPilot trap, the MAC address may not be displayed properly.

● Storing event log

When the all conditions shown below are met, the alarm may continue to occur.

- When ServerView Console has been installed on the system:
- When the server itself is included into the monitor target:
- When the following traps are enabled on the [Server Properties] window:
  - Error entry in eventlog
  - Warning entry in eventlog
  - Information entry in eventlog
  - Failure entry in eventlog
  - Success entry in eventlog
- When one of the following setting is enabled in the alarm setting:
  - [Store Event Log] is enabled on the default action of the [Shared Settings] window.
  - In the alarm group setting, the [Log] is enabled as an action against the alarm from the server itself.

As a prevention measure, you can disable the above trap in the [Server Properties] window or disable the above setting in the alarm setting.

● Alarm when disconnecting/turning on the AC power

When the system is started up by disconnecting/turning on AC power, a message may be displayed or an error is stored into the event log. This does not affect the system operation.
The message displayed is as follows:

```
Alarm received from server ServerName
An error was recorded on server ServerName.
See server management event / error log (Recov-
ery)
for detailed information
```

The event log stored is as follows (source: Server Control):

```
An error was recorded on server N400. See server
management event / error log (Recovery) for
detailed
information.
```

● Error during reboot/shut down

An error may occur in SVxxx.exe (such as SVFilterServer.exe, SVConvertServerList.exe) during reboot or shut down.
However, this does not affect the system operation after reboot.

● Broadcast transmission

The broadcast transmission may not be executed because of your Windows Messenger's problem.
To test to verify whether this service operates properly, open the command prompt and execute the following command.

- When testing the broadcast transmission to all users in the domain:

```
net send * <message>
or
net send /domain:<yourdomain> <message>
```

- When testing the broadcast transmission to all users in the session:

```
net send /users <message>
```

- When testing the broadcast transmission to all specific users:

```
net send <user> <message>
```

When one of the above tests fails, check the network.

IMPORTANT

▶ Even if the test result shows successful completion message, the "net send" to the domain administrator always seems to be unoperatable.

● Station's transmission mode

You can specify two types of station's transmission mode: [Normal], [Direct].
When [Direct] is specified, the transmitted alarm type is displayed on the destination alarm monitor.
And, [ServerView alarm passed through] is displayed for the alarm type in Alarm Manager.

A.4 ServerView WebExtension Troubleshooting

● ServerView WebExtension does not start

For Windows 2003, when ServerView WebExtension has been installed without connecting the LAN, perform the following procedures.

1 Connect a LAN to the server.

2 Set an IP address for the server.

3 Click [Start] → [Programs] → [Fujitsu ServerView] → [ChangeComputerDetails] to set the new computer information.

4 Reboot the server.

● When using ServerView WebExtension in Windows 2000, error message is displayed or a server cannot be added to the server list

When ServerView WebExtension is executed in Windows 2000, the following problems may occur.

- Message such as "Could not find <Installationpath_Html>\uid\1\GettingStatus" or "Error on SnmpMgrTrapListen 1062" may be displayed.
- A new server cannot be added to the server list.
- The server list is not displayed (seems to be hang up).

These problems occur for the following reasons.
When installing ServerView WebExtension (executing Setup.exe), user normally logs in as a user having administrator privilege.
When executing ServerView WebExtension, the user normally logs in as "IUSR_<computername>".
Therefore, this user will not have permission to change the ServerView WebExtension's database (for example, the server list) or ServerView WebExtension specific setting files.
To resolve this problem, perform the following procedure:

1 Right-click the [My Computer] on the desktop and click [Manage] from the popup menu.

The [Computer Management] window appears.

2 Perform the following procedure to create a new user.

1. Click [Local Users and Groups] from [System Tool] and right-click [Users] and then click [New User] from the popup menu.
   The [New User] window appears.
2. Enter the required information and click [Create]. The new user must be placed into the same group as the user (i.e. administrator) who installed ServerView WebExtension.

3 Set the new user in the ServerView script directory.

From [Services and Applications] in the [Computer Management] window, click [Microsoft Internet Information Services] → [Default Web Site] → [scripts] and right-click [ServerView] and click [Properties] from the popup menu.
The [ServerView Properties] window appears.

4 Click the [Directory Security] tab.

5 Click [Edit] under [Anonymous access and authentication control].

The [Authentication Method] window is displayed.

6 Click [Edit] under [Anonymous Access].

The [Anonymous Users] window appears.

7 Click [Browse] and select the user created in the step 2 or [Administrator].

8 Check [Allow IIS to control password].

9 On all the windows displayed, click [OK] or [Yes].

● If the problem persists:

If the problem persists, perform the following steps or change.
When the default is specified for the installation location and ServerView WebExtension is installed, the path is as follows:
<Installationpath_Html> = <Drive name>:\InetPub\wwwroot\ServerView

1 Click [Start] → [Programs] → [Accessories] → [Explore].

2 Open [<Installationpath_Html>].

3 Right-click [<Installationpath_Html>] and click [Properties] from the popup menu.

4 Click the [Security] tab.

5 Set [Everyone] to the [Name] and check [Change] and [Write] in the [Grant Access].

6 Click [Apply] or [OK].

● Setting not to start "ServerStatus" process

ServerView WebExtension's "ServerStatus" process may start a few times since ServerView WebExtension does not have any permission to modify specific files. To prevent starting, perform the following procedures:

1 Reboot the server.

2 Perform the following procedures from the Task Manager.

1. Press [Ctrl] + [Alt] + [Delete] key.
   The [Windows Security] window appears.
2. Click [Task Manager].
   The [Task Manager] message appears.
3. Select the [Process] tab.

3 Perform the following procedure to exit all "ServerStatus.ex" processes.

1. Right-click [ServerStatus.ex] and click [End Process] from the popup menu.
   The [Warning] window appears.
2. Click [Yes].
   The process ends.

4 Repeat above steps to exit all "ServerStatus.ex" processes.

5 If you have no permission to exit all "ServerStatus.ex" processes, reboot the server.

A.5 Other

■ General question & answer

● What is "Fujitsu Server Control"?

It is a software that is to be installed at the same time when ServerView Agent is installed. "Fujitsu Server Control" is required to operate ServerView properly.

● What is "Server Control Service"?

It is a service that is to be installed when "Fujitsu Server Control" is installed.

● The "svtmpdir" folder is created within C:\Winnt\Temp when ServerView is installed. Can I delete this folder after the installation?

This folder is used to store the debug information.
Deleting this folder causes no problem, however, when the system (Fujitsu ServerView Service) is restarted, this folder will be recreated.

● How many servers can be monitored from ServerView's Management Console?

There is no limitation to the number of monitorable servers from ServerView's Management Console. However, the information is collected using SNMP service when monitoring the servers from ServerView's Management Console. Therefore, as the number of the monitored servers increases, the network load will be higher.

● What is the protocols and port number used in ServerView?

In ServerView related programs, the following protocols and ports are used:

ServerView

- SNMP (TCP/UDP: 161,162)
- PINGFICMP (there is no port number concept in this protocol)

AlarmService, WebExtension (Web service provider side)

- SNMP (TCP/UDP: 161,162)
- HTTP (TCP for IIS: 80, TCP for ServerView Web-Server: 3169)

The followings are used only for SSL connection:

- HTTPS (TCP for IIS: 443, TCP for ServerView Web-Server: 3170))

AlarmService, WebExtension (Management Console side)

- SNMP (TCP/UDP: 161,162)
- HTTP (TCP for IIS: 80, TCP for ServerView Web-Server: 3169)

The followings are used only for SSL connection:

- HTTPS (TCP for IIS: 443, TCP for ServerView Web-Server: 3170)

● Is Server Monitor Module (SMM) is supported?

It is not supported.
The SMM cannot be installed on the server to which ServerView is installed.
In ServerView, the Remote Service Board (RSB) can link and enable functions and realize the functions equal to those of SMM.

● When ServerView Management Console is installed, what function does the task that is registered with the name At* (ID number) provide?

When ServerView Web-Server is selected for WebServer and ServerView Management Console is installed, a task is registered into the Task Scheduler with the name At* (ID number).
This task prevents the WebServer's log file increasing in size.
To disable the task's scheduler, check the following file size regularly.

```
[System drive]:\Program Files´Fujitsu\F5FBFE01\ServerView Services
\WebServer\logs\access.log
```

■ Browser troubleshooting

Not all browsers operate properly at all times. There are many possible causes and the effects vary.

● ServerView only detects computers whose power is currently turned on

Some network information may not be detected while scanning Microsoft Windows network.
This phenomenon occurs due to the method (the usage of broadcast method) Windows uses to obtain the network information.

● Cannot access to the domain because of the security policy setting
Cannot access to the domain because of inaccessibility to the domain server
Cannot access to other network system (such as NetWare)

After the time out limit has been exceeded, the browse operation would be canceled. However this might take a few minutes.

● The browser has failed completely and the browser window is blocked for a few minutes

The browser window may be blocked or the entire ServerView application may be blocked during the browser process. This phenomenon may occur when Windows NT domain has a problem or the network performance is significantly deteriorated.
In this case, do not use the browser function.

● Takes time to resolve the computer name to its IP address

Windows Internet Name Services (WINS) or Domain Name System (DNS) may not be set up properly in the log in computer. The address of primary or secondary WINS server or the address of DNS server may not be valid. When the WINS protocol is not started properly, name query broadcast at very low speed is used for IP address resolution. WINS or DNS can be set in the [TCP/IP Properties] of the [Network Settings].

● No IP address was found

There may be some causes such as follows:

- TCP/IP has not been installed on the remote computer.
- WINS is disabled in the log in computer.
- There is no WINS server, DNS information or the LMHOSTS file in the LAN.
- WINS database has not been updated.

● Using WINS, DNS, or either of LMHOSTS file could not resolve the address

The name query broadcast is currently used. This broadcast may fail because of the problem of network topology or performance, for example when the domain router does not transmit the name query broadcast.

■ General notes

● Update installation

When performing update installation, the [GAM Driver Installation] window may appear if RAID card exists.
In this case, click [OK].
Subsequently, the [Installation completed] window appears then click [OK].

● Notes for uninstallation

Application error may occur during uninstallation, however, the system operates with no problem.

● Log file

When ServerView is installed, the log information storage folders ("C:\svtmpdir", "C:\winnt\Temp\svtmpdir") will be created.
The log information is created and updated even while the system operates properly. The log information may be deleted when the amount of free disk space has been reduced.
Delete the log information after ServerView is closed and Fujitsu AlarmService is stopped from the service window. Application error may occur when Fujitsu AlarmService is stopped, however, the system will operate with no problem.

● ServerView Web-Server and SSL

When ServerView WebServer is selected as a Web server and [Enable SSL and authentication] is enabled during the installation, ModSSL and OpenSSL are installed in conjunction with ServerView Web Server.
In this case, using "https:" as URL instead of "http:", and "3170" as a port number instead of "3169" enables the SSL connection. To use SSL, it is required to obtain the security certificate. The security certificate installed by default must be used only for test purpose.
For details, refer to OpenSSL site (http://www.openssl.org).
In the URL that uses SSL, the authentication is requested during the connection.
To add a user, perform the following procedure:

1 Execute the following two commands continuously from the command prompt.

```
cd "[system drive]:\Program Files\Fujitsu \F5fbfe01\ServerView
Services\WebServer\bin"
htpasswd passwd <user name>
```

2 Enter a new password.

```
Automatically using MD5 format on Windows.
New password:
```

3 Enter the new password again to verify.

```
Re-type new password:
```

When the passwords match, the following message will be displayed and a user will be added.

```
Adding password for user <user name>
```

If the following message is displayed, the password is invalid. Execute the command again.

```
htpasswd: password verification error
```

To delete a user, open the following file on the text editor and delete the line that contains the user name to be deleted.

[system drive]:\Program Files\Fujitsu\F5fbfe01\ServerView Services\WebServer\bin\passwd

By default, "svuser" has been set to the user and the password "fsc" has been set to the password. Delete this user and add an appropriate user for your security.

● BootRetryCounter

When the shut down process occurred because of failure, the value specified in [Maximum number of reboot tries] remains at reduced value and it does not recover automatically even if it starts up normally. To recover this value, perform the following procedure:

1 In ServerView, select the corresponding server.

2 Right-click, and click [ASR Properties].

The [ASR Properties] window appears.

3 Click the [Restart Settings] tab.

4 Click [Default] on the right side of [Maximum number of reboot tries].

If the log in to the corresponding server has not been performed, the log in is requested.

B Uninstallation

This appendix describes how to uninstall the ServerView.

B.1 Uninstalling ServerView

IMPORTANT

- Uninstall ServerView after all ServerView programs are closed. After ServerView is uninstalled, the directories, subdirectories and files may not be deleted. In addition, ServerView may not be deleted from the program group after the uninstallation.
- When the process is suspended on the way or the steps other than those shown below are performed during uninstallation, ServerView may not be uninstalled properly. The uninstallation should be performed completely.
- The items saved on the server's BIOS are not restored even when ServerView is uninstalled. Restore the setting to the original state and then uninstall ServerView.

  Refer to "● Automatic System Reconfiguration/Restart (ASR)" (→pg.114) and "● Set Power ON/OFF Timer" (→pg.125).
- The characters get garbled on the uninstallation window, however, it does not affect the operation.
- After uninstallation, ServerView's short cut may remain. Delete the shortcut manually (right-click the shortcut icon and select [Delete]).
- After the ServerView Console has been uninstalled, the task with the name "At**(**: task ID)" may remain. In this case, open the [Task Properties] and delete the task if the [Run:] is the same as the file shown below.
  - The file executed in ServerView's Task Scheduler:
    system drive:\Program Files\Fujitsu\F5FBFE01´ServerView\Services\WebServer
    \ClearMyLogs.exe

■ Uninstalling ServerView Console

When you raise the level of the server and re-build the server's monitoring system, perform the following steps and uninstall the following items of ServerView Agents.
When switching the management terminal to other PC and use the PC or raising the level of ServerView, follow the steps below to uninstall the current Management Console from the management terminal.
The Management Console and ServerView WebExtension will be deleted at the same time. It is not possible to select the target to delete.

1. Log in as an administrator or a user name with the equivalent privilege.

2. Exit all running applications.

3. Start the control panel and double-click [Add/Remove Programs].

4. Select [Fujitsu ServerView] and click [Delete].
   ServerView Console will be uninstalled.

A
Appendix

■ Uninstalling ServerView Agent

To uninstall ServerView Agent, perform the following procedure:

1. Log in as an administrator or a user name with the equivalent privilege.

2. Exit all running applications.

3. Start the control panel and double-click [Add/Remove Programs].

4. Select [ServerView Agents] and click [Delete].

   ServerView Agent will be uninstalled.

■ [Linux]Uninstalling ServerView Linux

To uninstall ServerView Linux, perform the following procedure:

1. Log in as a super user.

2. Execute the following command.

```
# rpm -e srvmagt-agents
# rpm -e srvmagt-eecd
# rpm -e srvmagt-mods_src
```

ServerView Linux will be uninstalled.

B.2 [Linux]Uninstalling WebExtension/AlarmService

To unistall WebExtension/AlarmService, perform the following procedure:

1. Log in as a super user.

2. Execute the following command.

```
# rpm -e WebExtension
# rpm -e AlarmService
```

WebExtension/AlarmService will be uninstalled.

C Icon List

This section lists the icons displayed on each window and describes their meanings. Those icons are displayed so that the status of one or more objects or the status change can be seen at a glance.

C.1 Server List

The list of icons shown on the [Server List] window and their meanings are as follows:

table: Icons shown on the [Server List] window

Icon	Meaning
✓	OK. All components are OK.
🟥	Error. Any errors occurring in one or more components.
↘	The status deteriorates. The status for one or more components deteriorates.
	Uncontrollable. Status of components is not determined.
→	Investigation status. Undetermined status during investigation status.
?	Unknown. Server is inaccessible.
i	DeskInfo. The DiskInfo tool can start.
	The advanced server manager can be activated.
LDSM	Intel LANDesk® Server Manager (LDSM) can be activated.
	ServerView receives an alarm from the server.
↕	The threshold measurement starts on this server.
	The archive data is available on this server.
	The status of clusters is normal.
→	Investigation status. Undetermined status during investigation status.
🟥	Error. Any errors occurring in one or more clusters.
✓	OK. All components in the cluster are OK.
	Uncontrollable. Status of cluster is not determined.

table: Icons shown on the [Server List] window

Icon	Meaning
?	Status of cluster is not determined.
↘	The status deteriorates. The status for one or more components in the cluster deteriorates.
✓	RSB responds through the secondary channel because the server does not respond.

C.2 ServerView menu

The list of icons shown on the [Server List] menu and their meanings are as follows:

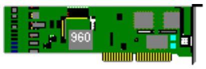
table: List of icons shown on the [Server List] menu

Icon	Meaning
	Maintenance Buttery support
	ASR: Automatic System Reconfiguration/Restart Automatic server search
	Restart Restarting the server
GO	Terminating server shutdown/power-off
OFF	Shut down and OFF Server shut down and power off
RAM RAM RAM	Memory module
	Temperature (red: danger, green: operating, yellow: stand-by condition, blue: sensor failure, grey: unknown)
	Fan (red: failure, green: operating, yellow: stand-by condition, grey: unknown)
🟩	Server’s door is closed
🟨	Server’s door is opened
🟩	Server’s case is closed
🟨	Server’s case is opened

C.3 Mylex's [Device View] window

The list of icons shown on the [Device View] window and their meanings are as follows:

table: Icons shown on the [Device View] window

Icon	Meaning
	Mylex controller
Capacity in MB or GB	Mylex Red characters: suspending Yellow characters: standby mode Green characters: OK Operating Purplish red characters: S.M.A.R.T. failure Blue characters: Unknown status or re-building status
	Host

C.4 [DPT Disk Array Agent] window

The list of icons shown on the [DPT Disk Array Devices] window and their meanings are as follows:

table: Icons shown on the [DPT Disk Array Devices] window

Icon	Meaning
🟢═══	Status: best suited (green)
🟡═══	Status: investigation, warning, status deteriorated, re-building, investigation completed (yellow)
🔴═══	Status: error, during device formatting, during device set up (red)
🔵═══	Status: disabled, missing, not set up, cleared (blue)

C.5 Network Interfaces window

The list of icons shown on the [Network Interfaces] window and their meanings are as follows:

table: Icons shown on the [Network Interfaces] window

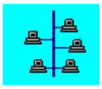
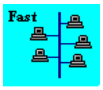
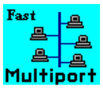
Icon	Meaning
	Ethernet network card
	Fast Ethernet network card
	Ethernet network card (multiple network connections mulitiport)
	Fast Ethernet network card (multiple network connections mulitiport)

table: Icons shown on the [Network Interfaces] window

Icon	Meaning
	Token Ring network card
	FDDI network card
⇦	Input statistical information
⇨	Output statistical information

C.6 Bus and Adaptor window

The icon list shown on the [Bus and Adaptor] window and the meanings are as follows:

table: Icons shown on the [Bus and Adaptor] window

Icon	Meaning
Slot 1	Slot location on the systemboard: Slot 1 is bottom
Slot 1	Slot location on the systemboard: Slot 1 is top
	Branch of selection level opens
	Branch of selection level closes
✋	Bottom selection level, no more selectable

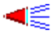
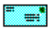
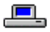
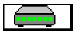
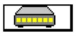
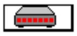
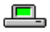
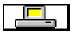
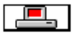
C.7 Alarm Manager window and Alarm Monitor window

The list of icons shown on the [Alarm Manager] window and [Alarm Monitor] window and their meanings are as follows:

table: Icons shown on the [Alarm Manager] window and [Alarm Monitor] window

Icon	Meaning
🔔	Red alarm: danger
🔔	Pink alarm: severe
🔔	Yellow alarm: slight
🔔	Blue alarm: information
🔔	White alarm: unknown

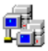
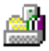
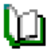
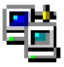
table: Icons shown on the [Alarm Manager] window and [Alarm Monitor] window

Icon	Meaning
	Alarm has been accepted by user’s entry.
	Other program that can be executed has been started by this alarm.
	Broadcast message was transmitted for this alarm.
	Mail was sent for this alarm.
	Pager call was started by this alarm (unsupported).
	This alarm will be transmitted to manager or management station.
	This alarm will be transmitted to local NT event log.
	This alarm will be stored to the database.
	Green: Pager is confirmed (unsupported).
	Yellow: Pager is completed (unsupported).
	Red: Pager exists (still operating) (unsupported).
	Green: Transmission is confirmed.
	Yellow: Transmission is completed.
	Red: Transmission exists (still operating).

C.8 Cluster status (unsupported)

The icon list showing cluster objects and their meanings are as follows:

table: Icons showing cluster objects

Icon	Meaning
	Cluster status icons
	Cluster server node status icons
	Cluster group status icons
	Cluster resource status icons
	Cluster network status icons

■ Server node status

The cluster server node status icons and their meanings are as follows:

table: Cluster server node status icons

Icon	Meaning
	Unknown: Cannot determine node status or cannot match any status shown on this table.
	Up: Server node is operating.
	Down: Server node is in failure state.
	Suspending: Server node does not provide group service currently.
	Combination: The server node starts to provide the cluster service currently, however, the service is not available yet.
	Unavailable: Server node is unavailable.

■ Group status

The cluster group status icons and their meanings are as follows:

table: Cluster group status icons

Icon	Meaning
	Unknown: Cannot determine group status or cannot match any status shown on this table.
	Online: Group is in online status.
	Offline: Group is in offline status.
	Partially online: Group is in online partially.
	Failure: Group is in failure state.
	Unavailable: Group is unavailable.

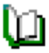
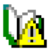
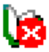
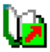
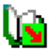
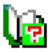
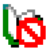
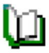
■ Resource status

The cluster resource status icons and their meanings are as follows:

table: Cluster resource status icons

Icon	Meaning
	Unknown: Cannot determine resource status or cannot match any status shown on this table.
	Online: Resource is available.

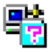
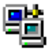
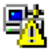
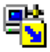
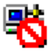
table: Cluster resource status icons

Icon	Meaning
	Offline: Resource is unavailable currently.
	Failure: Resource is in failure state.
	Online waiting: Resource is in launching process.
	Online waiting: Resource is in shutdown process.
	Uncertain online status: Resource status cannot be determined and resource is unavailable currently.
	Unavailable: Resource is unavailable.
	Inherited: Resource is inherited.
	Initialization stage: Resource is being initialized currently.

Network status

The cluster network status icons and their meanings are as follows:

table: Cluster network status icons

Icon	Meaning
	Unknown: Cannot determine network status or cannot match any status shown on this table.
	Up: Network interface is operating fully.
	Shutdown Network has been shut down.
	Connection interrupted: Communication between one or more nodes in the cluster is interrupted.
	Unavailable: Network is unavailable.

Network interface status

The cluster network interface status icons and their meanings are as follows:

table: Cluster network interface status icons

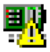
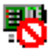
Icon	Meaning
	Unknown: Cannot determine network interface status or cannot match any status shown on this table.
	Up: Network interface is operating.

table: Cluster network interface status icons

Icon	Meaning
?	Failure: Network interface is not operating.
■	Inaccessible: Other nodes cannot access to the network interface.
✕	Unavailable: Network interface is unavailable.

C.9 Blade server status

The blade server status icons and their meanings are as follows:

table: Blade server status icons

Icon	Meaning
▨	The status of blade servers is normal (the status of all blades is OK).
→	Status of blade servers is under investigation.
↘	The status of blade servers deteriorates (the status of at least one blade deteriorates).
✕	The status of blade servers is error (the status of at least one blade is error).
⚙	Uncontrollable. (The blade server does not respond).
?	Unknown. Blade server is inaccessible.

■ Blade server status LED

The blade server status LED icons and their meanings are as follows:

table: Blade server’s status LED icons

Icon	Meaning
💡	Lights up
💡	Lights off
💡	Flashing (shows system failure)

■ Blade type

The types of blade in blade server are as follows:

table: Blade in blade server

Icon	Meaning
	Management blade (master)
	Management blade (slave)
	Switch blade
	Server blade

C.10 Other icons

The list of icons not associated with specific windows and their meanings are as follows:

table: Icons not associated with specific windows

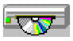
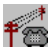
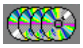
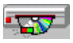
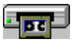
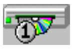
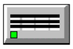
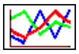
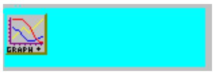
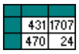
Icon	Meaning
	CD-ROM (red: error, green: online, yellow: stand-by, blue: unknown)
	Communication device (red: error, green: online, yellow: stand-by, blue: unknown)
	CPU (red: error, green: online, yellow: stand-by, blue: unknown)
	Jukebox, automatic CD-ROM changer (red: error, green: online, yellow: stand-by, blue: unknown)
	MOD (red: error, green: online, yellow: stand-by, blue: unknown)
	Printer (red: error, green: online, yellow: stand-by, blue: unknown)
	Scanner (red: error, green: online, yellow: stand-by, blue: unknown)
	Tape drive device (red: error, green: online, yellow: stand-by, blue: unknown)
	WORM (Write Once Read Many) device (red: error, green: online, yellow: stand-by, blue: unknown)
	Hard disk Hard disk (red: failure, green: OK)
	Unknown device (red: error, green: online, yellow: stand-by, blue: unknown)
	Graphical view
	Graph view
	Representation with text or table

table: Icons not associated with specific windows

Icon	Meaning
🖥📟	Pager monitoring (red: error, green: online, yellow: stand-by, blue: unknown)
☑	OK
!	Unmanageable
⧗	Investigation mode
STOP	Error
⚙	Initial setting, Environment [<Server>], or Power [<Server>]
▦	All windows related to network: Network interface [<Server>], Token Ring statistics [<Server>], Ethernet MAC statistics [<Server>], FDDI MAC statistics [<Server>]
💽	All windows related to external storage device: External storage devices [<Server>], Display Devices [<Server>], External storage devices: Partition view [<Server>], External storage devices: Logical View [<Server>] Mylex Disk Array window: Device view [<Server>], Adapter view [<Server>], Physical device view [<Server>]
🖥 i	System information (particularly OS)
▦	Baseboard [<Server>]
⚙ M	Server Manager on Windows Desktop, Server List, ServerView [<Server>], Alarm Manager, Threshold Manager, Report Manager, Threshold List, Report List
⚙ M ?	Server Manager Help System on Windows Desktop

D Trap List

Trap is a SNMP Protocol Data Unit alarm transmitted from SNMP agent. This is used to notify an unexpected event, such as an error message or the status change that occurs because the selected threshold level has been exceeded, to the management station.

You can launch the [Shared Settings] window in [Alarm Settings] and select different actions against each server and severity (danger, severe, slight, and information).

- Log
  An event is written into the alarm log list in the database table.
- Pop-up
  Start the alarm monitor.

The danger alarm event is always written into the alarm log list in the log file.
All traps received are displayed on the Alarm Monitor, however, only the events written into the log file would be displayed on the Alarm Manager.
For the list of the messages displayed when ServerView receives OS's SNMP trap and the events stored to the OS event log, refer to "ServerView Trap List".
The traps are classified for each category and are classified in the order of "Specific Code" within the category.
The event log of the traps AlarmService received and stored is recorded with the following source name.

- Source name: Fujitsu ServerView Service

The following message is written at the beginning of the stored event log:

- ServerView received the following alarm from server <server name>:

■ Trap list

For more details on the trap list, refer to "ServerView Trap List".

E Threshold List

This section describes ServerView variables used for threshold monitoring.

E.1 Monitored values

The following thresholds are monitored:

table: Monitored thresholds

Value	Meaning
DAC960-AdapterInfo-Values	DAC960 adapter setting threshold
DAC960-PhysicalDevice-Values	Device error threshold for the device connected to DAC960 adapter.
Environment-Values	Fan speed threshold
Ethernet-MAC-Statistics	Ethernet MAC error threshold
FDDI-MAC-Statistics	FDDI-MAC error threshold
FDDI-Port-Statistics	FDDI port error threshold
Interface-Values	Interface statistics and interface error thresholds
IP-Info	IP statistics threshold
Memory-Values	Memory error threshold
NetWare-Info	NetWare connection threshold
OnOffTimes	Power on/off time threshold
PC-Inventory-CPUValues	CPU usage threshold
PC-Inventory-FileSystem	Usable block's threshold
PC-Inventory-Info	Mounted file system threshold
SystemBoard-Info	Bus loading threshold
SystemControl-Info	Cabinet number threshold
TokenRing-MAC-Statistics	Token Ring error threshold
UPS-Values	Battery running hours threshold

E.2 Meaning of each value

■ DAC960-AdapterInfo-Values

table: DAC960-AdapterInfo-Values

Value	Meaning
mylex.NumChannels	Current channel number
mylex.NumLogicalDrives	Current logical drive number
mylex.NumPhysicalDevices	Current physical device number

■ DAC960-PhysicalDevice-Values

table: DAC960-PhysicalDevice-Values

Value	Meaning
physDev960.HardError Count	Hardware error count (configured DAC disk only)
physDev960.MiscErrorCount	Various error counts (configured DAC disk only)
physDev960.ParityError Count	Parity error count (configured DAC disk only)
physDev960.SoftErrorCount	Software(normal) error count (configured DAC disk only)

■ Environment-Values

table: Environment-Values

Value	Meaning
fan.CurrentMaxSpeed	Current fan speed at Max. power (rpm/min) (-1 = unknown)
fan.CurrentSpeed	Current fan speed (rpm/min, -1 = unknown)

■ Ethernet-MAC-Statistics

table: Ethernet-MAC-Statistics

Value	Meaning
ethS.AlignmentErrors	A count of frames received on a particular interface that are not an integral number of octets in length and do not pass the FCS check.
ethS.CarrierSenseErrors	The number of times that the carrier detection test failed and was not executed when transmitting a frame on a particular interface had been attempted.
ethS.DeferredTransmissions	A count of frames for which the first transmission attempt on a particular interface is delayed because the medium is busy.
ethS.ExcessiveCollision	A count of frames for which transmission on a particular interface fails due to excessive collisions.
ethS.FCSErrors	A count of frames received on a particular interface that are not an integral number of bytes in length and do not pass the FCS check.
ethS.FrameTooLongs	A count of frames received on a particular interface that exceeds the maximum permitted framer size.
ethS.InternalMacReceiveErrors	A count of frames for which reception on a particular interface fails due to an internal MAC sublayer receive error.
ethS.InternalMacTransmit Errors	A count of frames for which transmission on a particular interface fails due to an internal MAC sublayer transmit error.
ethS.LateCollisions	The number of times that a collision is detected on a particular interface later than 512 bit-times into the transmission of a packet.
ethS.MultipleCollisionFrames	A count of successfully transmitted frames on a particular interface for which transmission is inhibited by more than one collision.
ethS.SingleCollisionFrames	A count of successfully transmitted frames on a particular interface for which transmission is inhibited by exactly one collision.
ethS.SQETestErrors	A count of times that the SQE TEST ERROR message is generated by the PLS sublayer for a particular interface.

■ FDDI-MAC-Statistics

table: FDDI-MAC-Statistics

Value	Meaning
fddiM.ErrorsCts	Error_Count (refer to ANSI MAC 2.2.1)
fddiM.ErrorsCts	Frame_Count (refer to ANSI MAC 2.2.1)
fddiM.LostCts	Lost_Count (refer to ANSI MAC 2.2.1)

■ FDDI-Port-Statistics

table: FDDI-Port-Statistics

Value	Meaning
fddiP.LCTFailCts	The number of times in which the link reliability test failed continuously during managing connection.
fddiP.LemCts	The number of errors detected by the link error monitor that is reset to zero when power is turned on.
fddiP.LemRejectCts	The number of link error monitor events for the hours in which link was rejected.

■ Interface-Values

table: Interface-Values

Value	Meaning
if.InDiscards	The number of incoming packets selected to discard in spite of there being no error in which packet cannot be used on upper layer protocol.
if.InErrors	The number of incoming packets that contains an error in which a packet cannot be used on upper layer protocol.
if.InNUcastPkts	The number of non-multicast (non-broadcast) packets transmitted to the upper layer protocol.
if.InOctets	The total number of bytes received on the interface, including framing characters.
if.InUcastPkts	The number of subnetwork-unicast packets sent to an upper layer protocol.
if.InUnknownProtos	The number of packets received via the interface that were discarded because of an unknown or unsupported protocol.
if.OutDiscards	The number of outbound packets that were chosen to be discarded--even though no errors had been detected--so that they would not be transmitted.
if.OutErrors	The number of outbound packets that could not be transmitted because of errors.
if.OutNUcastPkts	The total number of packets that upper level protocols requested be transmitted to a subnetwork-unicast address, including those that were discarded or not sent.
if.OutOctets	The total number of bytes transmitted out of the interface, including framing characters.
if.OutQLen	The length of the output packet queue (in packets).
if.OutUcastPkts	The total number of packets that upper level protocols requested be transmitted to a subnetwork-unicast address, including those that were discarded or not sent.
if.Speed	An estimate of the interface's current bandwidth in bits per second.

IP-Info

table: IP-Info

Value	Meaning
ip.ForwDatagrams	The number of input datagrams for which this entity had not been their final IP destination. As a result, an attempt had been made to find a route to forward them to that final destination.
ip.InReceives	The total number of input datagrams received from interfaces, including those received in error.
ip.OutRequests	The total number of IP datagrams supplied to IP by local IP user protocols (including ICMP), during requests for transmission.

Memory-Values

table: Memory-Values

Value	Meaning
memModule.Errors	The number of (parity) errors that occurred in this module after the last error count has been reset (-1= unknown).

NetWare-Info

table: NetWare-Info

Value	Meaning
sniNW.ConnectionsInUse	The number of connections that is used currently.
sniNW.PeakConnectionsUsed	The peak numbers of connections that were used.

OnOffTimes

table: OnOffTimes

Value	Meaning
#power.OffDuration	The hours for which the power has been turned off during the system lifetime (represented in hours, -1 = unknown).
power.OnCounts	The number of times that the power has been turned on during the server lifetime (in hours, -1 = unknown).
power.OnDuration	The hours for which the power has been turned on during the system lifetime (represented in hours, -1 = unknown).

PC-Inventory-CPUValues

table: PC-Inventory-CPUValues

Value	Meaning
sni.CPUUtilization	The percentage of hours in which CPU processes data.

PC-Inventory-FileSystem

table: PC-Inventory-FileSystem

Value	Meaning
sni.AvailableBlocks	The number of unused blocks in the file system (unused blocks * block size = number of usable bytes in the file system).

■ PC-Inventory-Info

table: PC-Inventory-Info

Value	Meaning
sni.MountedFileSystems	The number of file systems mounted currently.

■ SystemBoard-Info

table: SystemBoard-Info

Value	Meaning
utilization.EisaLoad	Load on EISA bus (represented by percentage, -1 = unknown).
utilization.PciLoad	Load on PCI bus (represented by percentage, -1 = unknown). This object should not be used when implementing newly. This object has been changed to pciUtilizationTable.

■ SystemControl-Info

table: SystemControl-Info

Value	Meaning
NumberCabinets.Detected	The number of detected cabinets (minimum value is 1 since server itself is included).

■ TokenRing-MAC-Statistics

table: TokenRing-MAC-Statistics

Value	Meaning
tokS.AbortTransErrors	This counter is incremented when a station transmits an abort delimiter.
tokS.ACErrors	This counter is incremented when a station receives an AMP or SMP frame in which A = C = 0, and then receives another SMP frame with A = C = 0 without first receiving an AMP frame. It denotes a station that cannot set the A and C bits properly.
tokS.BurstErrors	This counter is incremented when a station detects the absence of transitions for five half-bit timers (burst-five error).
tokS.FrameCopiedErrors	This counter is incremented when a station recognizes a frame addressed to its specific address and detects that the FS field A bit is set to 1 indicating a possible intermittent disconnection or duplicated address.
tokS.InternalErrors	This counter is incremented when a station recognizes an internal error.
tokS.LineErrors	This counter is incremented when a station copies or repeats a frame or token, the E bit is zero in the frame or token, and one of the following conditions exists: • There is a non-data bit (J or K bit) between the start delimiter (SD) and the end delimiter (ED) of the frame or token. • There is an FCS error in the frame.
tokS.LostFrameErrors	This counter is incremented when a station is transmitting and its TRR timer expires.
tokS.ReceiveCongestions	This counter is incremented when a station recognizes a frame addressed to it, but there is no available buffer space, and it indicates station congestion.
tokS.SoftErrors	The number of soft errors the interface has detected. It directly corresponds to the number of report error MAC frames that this interface has transmitted.
tokS.TokenErrors	This counter is incremented when a station acting as the active monitor recognizes an error condition that needs a token transmitted.

■ UPS-Values

table: UPS-Values

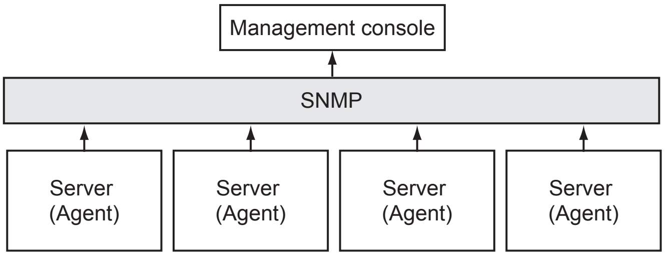
Value	Meaning
ups.TimeOnBattery	The elapsed time since the UPS switched to battery power.

F Technical Information

This section describes various technologies that constitute ServerView.

F.1 Agent and Management Console

A software package called as "Management Console" is used to manage networks, systems and applications. The Management Console can access to the management information provided by the network components. In short, all information related to networks, systems, and applications are provided by the Management Console.



The information exchanged between the Management Console and network components can be classified into two categories as shown below.

- The jobs the Management Console transmits to the network components. For example, an instruction that executes a query for the start of action or system usage.
- The autonomous message sent from the network component to the Management Console. For example, the message that notifies a component status to the Management Console.

It is required to define officially the exchange rules between the layout of this management information and the management information. This definition is called as management protocol. SNMP (Simple Network Management Protocol) is the standard management protocol.

The Management Console needs the monitored network component that can communicate based on this protocol to have the same function as those the Management Console has. There is the same function as the Management Console; it is called as an Agent. The Agent can access not only to the local resources and components but also to the information if it uses the protocol. This interrelation between the Management Console and the Agent is called a criterion between them.

The Agent is an OS-dependent software and should be install on all servers on the network. The Agent has the following characteristics:

- As a program, it must be very small and efficient. Using a large amount of system resource is not permitted to prevent the existence of the Agent affecting on the components themselves.
- It has a basic function to communicate with the Management Console as a standard function.
- Against the Management Console, it acts as a substitution of affected network components and the characteristics related to the components.
- It can be integrated to the network management concepts.

F.2 Management Information Base

A common management protocol must be implemented in the communication between the Management Console and the Agent. In addition, the Management Console and its corresponding Agent must agree what information should be provided and requested. Therefore, the management model for resource monitoring must match between them.

When the management model matches, it is assured that a job transmitted from the Management Console to the Agent can be executed by the Agent that receives it. Conversely, the Management Console must be able to interpret the message transmitted from the Agent that relates to a specific network event.

Therefore, both communication partners must have a common information base they can use freely. This common information base is called Management Information Base (MIB).

Any agent on the network provides MIB. As a result, the abstract data model of the corresponding component is made up by the MIB.

The special aspect of the MIB is that the Agent can act as a special resource provided by the MIB and configure itself by using the MIB. This is done, for example, when the Fujitsu Agent is used to monitor the MIB object threshold.

To describe the value to be included into the MIB, the official description language ASN.1 (Abstract Syntax Notation One) is used. ASN.1 is defined in ISO 8824 and ISO 8825.

Contrary to the Agent that should recognize only its own territory, the Management Console requires a complete information base of the entire network to execute its task. Therefore, all MIB files provided by the Agent on the network must exist on the Management Console system.

The following two categories of the MIB description is important for the Agent.

- The standard MIB file accepted by IEC.
  For example, one of those standard MIB file is "MIB II" file and is mandatory to be used in all network components on Internet. In MIB II, the appropriate data model for managing systems and routers has been defined already.
- The private MIB file that contains manufacturer’s own extensions.
  Normally, the manufacturer who sells new network component products would define the private MIB file that exceeds the application range of the standard MIB to describe the management aspect of the component.

F.3 Principles of SNMP

In ServerView program, Simple Network Management Protocol (SNMP) is used.

SNMP is a standard protocol that has been accepted by Internet Engineering Task Force (IETF) and is used to manage TCP/IP network worldwide.

■ Data elements of SNMP

The individual section of information contained in the MIB is described by MIB’s own object. Each object receives a unique object identifier globally. The access type is specified also.

■ Protocol elements of SNMP

The information is transmitted on the network using protocol elements. SNMP requires four different protocol elements to request, set, and display the value that is contained in the management information. The fifth protocol element (trap) allows the Agent to report an important event asynchronously.

table: Protocol elements of SNMP

Protocol element	Type	Functions
GetRequest PDU	0	Read MIB object request transmitted from the Management Console.
GetNextRequest PDU	1	Read the following MIB object requests transmitted from the Management Console (by entity ID).
GetResponse PDU	2	From the Agent, respond the contents that contain the requested value or the specified value.
SetRequest PDU	3	Write MIB object request transmitted from the Management Console.
Trap PDU	4	Asynchronous message when special event occurs

SNMP message consists of a SNMP header and PDU (Protocol Data Unit). The header contains a version ID code and a community string for the authentication check. PDU itself is a list of PDU type (refer to table) and "variable binding". The variable binding is to assign values to MIB object. This list consists of MIB object names and values to be assigned.

■ Community

A community is a group to which multiple systems (Management Console and Agent) that communicates with each other using SNMP are organized. The group is identified using a community string for group. The systems that belong to the same community can communicate each other. One system may belong to multiple communities. When the Management Console and the Agent communicate with each other, this community string is used like a password. The Agent can provide information in the agent system after it has obtained the community string from the Management Console. This restriction applies to each SNMP packet.

The access types such as read only or read-write access is defined for each MIB object. The Management Console’s access right to the Agent information is bound to the community string also. The MIB access types can be limited further by the access right bound to the community string. Those access rights cannot be extended. When the MIB definition defines so that read only access right is defined to an object, that object cannot be used even if the community string is bound to the read-write access right. The following example shows how to use the community string and access right.

● Example

A SNMP agent belongs to the community named "public" and has read only access right. The public community contains a Management Console. This Management Console can request the information transmitted from this SNMP agent by using the public community string to transmit corresponding message. Concurrently, this SNMP agent also belongs to the second community named "net_5". The read-write access right has been associated to this community. The net_5 community contains one more Management Console. In this example, the right for writing operation via the SNMP agent is given to the second Management Console (the Management Console for the net_5 community).

■ Trap

When a special event occurs on the network component, the SNMP agent can notify the event occurrence by transmitting a message to one or more Management Consoles. This message is called a trap in SNMP. The Management Console can handle an event that occurred on the network based on the trap received. The fact that the Management Console received a SNMP trap is also shown on the community string. When the SNMP agent transmits the trap message to the Management Console, the community string of the trap that is required to receive the message must be used.
For the ServerView trap, refer to "D Trap List" (→pg.281).

■ Fujitsu server management

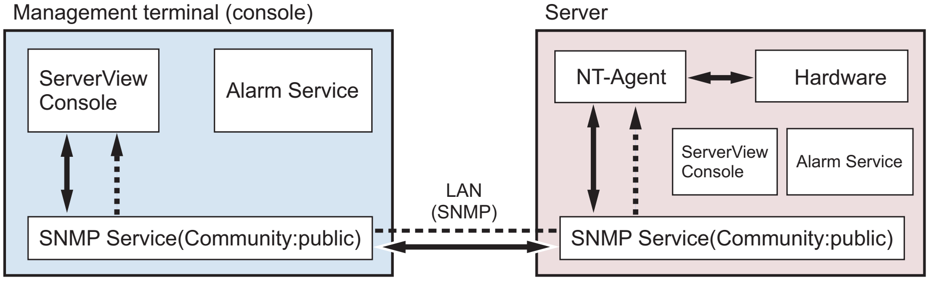
Behind the server management, there is a basic idea that there must be the Management Console accesses to the server management information on the network.
To accomplish this function, the server hardware and firmware are designed to follow this concept.
The Agent accesses the existing information and allows the Management Console to access the information through SNMP.

■ ServerView configuration

The component that is installed on the server varies depending on the OS used. ServerView Console is installed on the management terminal. The dotted lines on each figure show the communication by SNMP protocol.

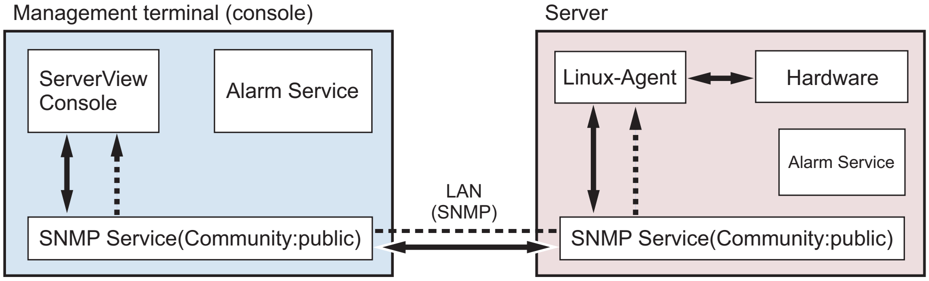
For Windows:

Install ServerView Agent on the server.



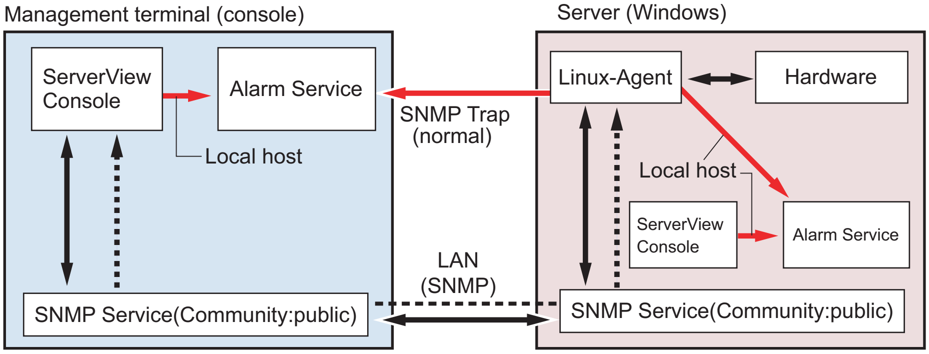
For Linux:

Install Linux Agent and Linux AlarmService on the server.


Management terminal (console)
ServerView Console
Alarm Service
SNMP Service(Community:public)
LAN (SNMP)
Server
Linux-Agent
Hardware
Alarm Service
SNMP Service(Community:public)

Trap transmission

The trap is transmitted to the IP address specified by the property setting of SNMP service. In normal trap transmission, NT-Agent trap on the server is received by Consoles's AlarmService. The localhost must be set for Console to receive its own trap. The localhost must be also set to receive the server's own trap by using its AlarmService.



■ Monitoring function

● Watchdog

The ServerView Agent functions are monitored by software watchdog. When the ServerView Agent is connected to BIOS, the software watchdog starts.
The ServerView Agent must report to the server management firmware at the intervals defined by the watchdog time setting. When the ServerView agent stops reporting to the server management firmware, it is assumed that the system is not operating properly, and the specified actions (to reboot, continues to operate or turn off/on) is launched.
The time intervals can be set in minutes to [Watchdog Timeout Delay]. The validity of the time is confirmed by the Management Console and Agent. The minimum time is one minute.
The available value is 1 to 120 minutes. If the values other than 1 to 120 minutes are specified, "N/A" is displayed on ServerView. When the Agent stops (for example, by SNMP command net stop), the watchdog stops automatically to prevent unscheduled restart.

● Boot monitoring

The watchdog monitors the time period until ServerView Agent becomes available after the system has been started. When the ServerView does not establish the connection with the server management firmware within the specified time periods, it is assumed that the boot process failed, and then the specified actions (to reboot, continues to operate or to turn off/on) is launched. The time intervals can be set in minutes to [Watchdog Timeout Delay]. The available value is 1 to 120 minutes. If the values other than 1 to 120 minutes are specified, "N/A" is displayed on ServerView.

F.4 Version Management (Inventory View)

Inventory View is one of the functions that ServerView Version Management Task provides. The version management task is part of ServerView and uses common framework in server management task and version management task.
The main task of Inventory View is to check the configuration of hardware and software on the specific machine. Also, it provides a integrated management tool that enables Inventory View function to be executed on all servers on the network that supports acquisition of Inventory View’s own inventory information. This tool allows a system administrator to define one or more central management stations that executes Inventory View’s task. Since this function is similar to the server management function, Inventory View has been built into the ServerView’s Management Console. The tasks in ServerView and Inventory View use the same lists as those of managed server.
Inventory View consists of two modules.

- Management Console function
  This operates in the management terminal. This consists of the components that receive the data on the installed components from the Agent.
  Inventory View receives the information on the installed components from Inventory View SNMP Agent. Each result is shown on the window in conjunction with updated view of Inventory View.

- Agent function
  This works on the client machine. This function allows the inventory of each server to be used on the network. The Management Console obtains and evaluates this inventory information of the specific server and then displays each result.

POINT

- The SNMP agent provides all Inventory View information about specific machine. In order to allow the Management Console to show the information on the client who is being down currently, the inventory information is saved to a file.

F.5 List of Contents to be Exported

The contents to be exported are as follows:

● Server list contents

- Server_ID
- IP_Address
- Server_Group
- Server_Name
- Location
- Contact
- Model
- Serial_Number
- BIOS_Version
- Number_of_Processors
- Number_of_Processor_Sockets
- Processor_Type
- Memory_Size_MB
- Cache_KB
- Number_of_File_Systems
- Size_of_File_Systems_MB
- Largest_Available_Space_MB
- Operating_System

● Container list contents

- Server_ID
- Time
- Functional_Container_No
- Functional_Container_Name
- Container_Parent_No
- Server ID list contents
- Server_ID

- Time
- Server_Name
- IP_Address

● Inventory list contents

- Server_ID
- Time
- Component_Name
- Product_Number
- Vendor
- Version
- Component_Type
- Manufacturing_Date
- Serial_Number
- Language
- Functional_Container_No
- Functional_Container_Name
- Physical_Container_No
- Physical_Container_Name

● Checklist contents

- Server_ID
- Time
- Component_Name
- Product_Number
- Vendor
- Version
- Component_Type
- Manufacturing_Date
- Serial_Number
- Language
- Update_Status
- Update_Information
- Systemboard_Compatibility
- Missing_Required_Components
- Exclusion_Information
- ComponentsAddedByRequirement
- Functional_Container_No
- Functional_Container_Name
- Physical_Container_No
- Physical_Container_Name

F.6 How to Change SNMP Settings

The SNMP community name must be the same for both the Management Console and the server.

- Setting properties of SNMP service (trap)
  On the server side, it is necessary to specify the host name or IP address of the Management Console to the trap destination.
- Setting properties of SNMP service (security)
  The community name that would be accepted on the server side must have the same setting as those in the Management Console.

■ How to change community name (public) on Windows

● How to set in the Management Console

- When changing the server that has been registered:
  Click [File] (or select and right-click the target server) → [Server Properties] → [Network/SNMP] Tab and change the community name.
- When adding a new server:
  1. Click [File] (or right-click on the Server List) → [New Server] –> [Network/SNMP] Tab and enter the community name.
  2. Open the server address.
  3. Close the server browser once.
  4. Open the new browser again.

● How to set on the server

When [Accept SNMP packets from these hosts] is selected, it is necessary to enter the host name or IP address of the Management Console.
If an error exists in above setting, the monitoring function does not operate properly.

■ How to change community name (public) on Linux

POINT

- Management Console is not supported on Linux.

● How to set on the server

1 Change "public" in the following three lines in the /etc/snmp/snmpd.conf to any community name.

```
com2sec svSec
localhost public
com2sec svSec default public
(snip)
trapsink 127.0.0.1 public
```

2 Add the following lines to the [Configuration] sections of /etc/srvmagt/VersionView.ini and /etc/srvmagt/Status_MIB.ini.

```
SnmpCommunity = new community name
```

3 After editing, execute the following command.

```
# /etc/rc.d/init.d/snmpd restart
# /etc/rc.d/init.d/srvmagt stop
# /etc/rc.d/init.d/eecd stop
# /etc/rc.d/init.d/eecd start
# /etc/rc.d/init.d/srvmagt start
```

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ServerView V3.60

User's Guide
B7FH-3211-01ENZ0-00

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