

ETERNUS

disk storage systems

ETERNUSmgr

Install Guide

for Solaris™ Operating System

ETERNUS

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Preface

This installation guide explains how to install the "ETERNUSmgr for Solaris OS" storage system management software on an ETERNUS8000, ETERNUS4000, ETERNUS2000, ETERNUS6000, or ETERNUS3000 (hereafter referred to as an "ETERNUS disk storage system" or "device"). Follow the instructions in this guide to install "ETERNUSmgr for Solaris OS".

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Content and Structure

This guide consists of the following two chapters and an appendix.

- Chapter 1 Installing ETERNUSmgr

This chapter describes how to install ETERNUSmgr.

- Chapter 2 Uninstalling ETERNUSmgr

This chapter describes how to uninstall ETERNUSmgr.

An appendix describes the "How to Set Up the Web Server", using the "apache" Web server as a typical example.

Abbreviations and Product Names used in this Manual

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Chapter 1

Installing ETERNUSmgr

1

This chapter describes how to install ETERNUSmgr.

1.1 ETERNUSmgr CD-ROM

The files distributed on the ETERNUSmgr CD-ROM are listed below.

- ./README_ja.TXT
- ./README_en.TXT
- ./bin/win/
- ./bin/sol/ETERNUSV20L30.PKG
- ./bin/hp/ETERNUSV20L30.HP
- ./bin/aix/ETERNUSV20L30.AIX
- ./bin/linux/FJSVgrmgr-V20L30-1.i386.rpm
- ./doc/install/win/
- ./doc/install/sol/
- ./doc/install/hp/
- ./doc/install/aix/
- ./doc/install/linux/
- ./doc/share/
- ./doc/E2000/
- ./doc/E3000/
- ./doc/E3000M50/
- ./doc/E4000M80/
- ./doc/E6000/
- ./doc/E8000M700/
- ./doc/E8000M800/

Each file and directory is briefly described below:

./README_ja.TXT

This file contains the CD-ROM list. (Japanese version)

./README_en.TXT

This file contains the CD-ROM list. (English version)

./bin/win/

This folder contains the files needed to install ETERNUSmgr for Windows. Use the "SETUP.EXE" found in this folder to install these files.

./bin/sol/ETERNUSV20L30.PKG

This is the main ETERNUSmgr program for Solaris. It is the installation package for the "pkgadd" format.

`./bin/hp/ETERNUSV20L30.HP`

This is the main ETERNUSmgr program for HP-UX. This file is a compressed archive of the various files needed to run ETERNUSmgr. Unpack this file and use the "stxinst" installer to install these files.

`./bin/aix/ETERNUSV20L30.AIX`

This is the main ETERNUSmgr program for AIX. This file is a compressed archive of the various files needed to run ETERNUSmgr. Unpack this file and use the "stxinst" installer to install these files.

`./bin/linux/FJSVgrmgr-V20L30-1.i386.rpm`

This is the main ETERNUSmgr program for Linux. It is the installation package for the "rpm" format.

`./doc/`

This directory contains various manuals. Files with "EN" in their name are English version manuals, while files without "EN" in their name are Japanese version manuals.

`./doc/install/win/`

This directory contains the "ETERNUS disk storage systems ETERNUSmgr Install Guide for Windows®" pdf files. These pdf files describe how to install ETERNUSmgr for Windows.

`./doc/install/sol/`

This directory contains the "ETERNUS disk storage systems ETERNUSmgr Install Guide for Solaris™ Operating System" pdf files. These pdf files describe how to install ETERNUSmgr for Solaris.

`./doc/install/hp/`

This directory contains the "ETERNUS disk storage systems ETERNUSmgr Install Guide for HP-UX" pdf files. These pdf files describe how to install ETERNUSmgr for HP-UX.

`./doc/install/aix/`

This directory contains the "ETERNUS disk storage systems ETERNUSmgr Install Guide for AIX" pdf files. These pdf files describe how to install ETERNUSmgr for AIX.

`./doc/install/linux/`

This directory contains the "ETERNUS disk storage systems ETERNUSmgr Install Guide for Linux" pdf files. These pdf files describe how to install ETERNUSmgr for Linux.

`./doc/share/`

This directory contains the "ETERNUSmgr User Guide -Introduction-" pdf files. These pdf files describe ETERNUSmgr's monitoring and e-mail notification functions.

`./doc/E2000/`

This directory contains the "ETERNUS2000 ETERNUSmgr User Guide -Settings/Maintenance- for models 100 and 200" pdf files. These pdf files show how to set up an ETERNUS2000 model 100 or 200 configuration, and describe how to modify settings and perform maintenance.

./doc/E3000/

This directory contains the "ETERNUS3000 ETERNUSmgr User Guide -Settings/Maintenance- for models 80, 100, 200, 200M, 300, 300M, 400, 400M, 500, 500M, 600, 600M, 700, and 700M" pdf files. These pdf files show how to set up an ETERNUS3000 model 80, 100, 200, 200M, 300, 300M, 400, 400M, 500, 500M, 600, 600M, 700, or 700M configuration, and describe how to modify settings and perform maintenance.

./doc/E3000M50/

This directory contains the "ETERNUS3000 ETERNUSmgr User Guide -Settings/Maintenance- for model 50" pdf files. These pdf files show how to set up an ETERNUS3000 model 50 configuration, and describe how to modify settings and perform maintenance.

./doc/E4000M80/

This directory contains the "ETERNUS4000 ETERNUSmgr User Guide -Settings/Maintenance- for models 80 and 100" pdf files. These pdf files show how to set up an ETERNUS4000 model 80 or 100 configuration, and describe how to modify settings and perform maintenance.

./doc/E6000/

This directory contains the "ETERNUS6000 ETERNUSmgr User Guide -Settings/Maintenance-" pdf files. These pdf files show how to set up an ETERNUS6000 configuration, and describe how to modify settings and perform maintenance.

./doc/E8000M700/

This directory contains the "ETERNUS8000, ETERNUS4000 ETERNUSmgr User Guide -Settings/Maintenance-" pdf files. These pdf files show how to set up an ETERNUS8000 model 700, 900, 1100, or 2100, and ETERNUS4000 model 300 or 500 configuration, and describe how to modify settings and perform maintenance.

./doc/E8000M800/

This directory contains the "ETERNUS8000, ETERNUS4000 ETERNUSmgr User Guide -Settings/Maintenance-" pdf files. These pdf files show how to set up an ETERNUS8000 model 800, 1200, or 2200, and ETERNUS4000 model 400 or 600 configuration, and describe how to modify settings and perform maintenance.

ETERNUSmgr software, "ETERNUSmgr Install Guide", and/or "ETERNUSmgr User Guide" may have been revised. The latest edition of each is available from the following site, and may be downloaded as necessary.

- ETERNUSmgr software
<http://www.fujitsu.com/global/support/computing/storage/system/>
- "ETERNUSmgr Install Guide" and "ETERNUSmgr User Guide"
<http://www.fujitsu.com/global/support/computing/storage/system/>

1.2 Installation Outline

Use the "pkgadd" command to install ETERNUSmgr. Refer to ["1.6 Procedure" \(page 7\)](#) for the installation procedures.

Check the following before installation.

- The IP address (provided by customer) of the ETERNUS disk storage system
- The e-mail address of the system administrator (when using the e-mail notification function)
- The directory name on the Web server for the ETERNUSmgr menu file
- The URL for viewing the directory name on the above server using a Web browser

After installation, refer to "ETERNUSmgr User Guide -Introduction-" to perform the necessary settings. For details about monitoring multiple target devices, refer to the "ETERNUSmgr User Guide -Introduction-".

1.3 Supported Environment

- Supported Operating Systems
 - Solaris 8 Operating System
 - Solaris 9 Operating System
 - Solaris 10 Operating System
- Supported Models

Refer to the specifications of each ETERNUS disk storage system.

1.4 Required Hardware/Software

The following hardware/software is required in order to use "ETERNUSmgr".

- A server with a Web server and Sendmail server installed
 - The Web server must be installed before installing ETERNUSmgr.
 - Not restricted to any specific Web server. However, the Web server must have the capability to display the HTML format log file list. Therefore, the Web server that will be used must have the capacity to display the appropriate directories list.
 - Sendmail is included with the Solaris OS.
- A client machine with the following software:
 - For ETERNUS2000, use:

| Software type | Software name | Remarks |
|--------------------------|---|---------------------------------------|
| Web Browser | <ul style="list-style-type: none"> • Microsoft® Internet Explorer 6.0 or later • Mozilla Firefox™ 1.5.0.10 or later • Netscape 7.1 or later (Windows® environment) | Any of these web browser may be used. |
| Java Runtime Environment | <ul style="list-style-type: none"> • Java Runtime Environment 5.0 Update 11 or later • Java Runtime Environment 6.0 Update 3 or later | Either version may be used. |

- For ETERNUS GR series and ETERNUS3000 model 50, use:

| Software type | Software name | Remarks |
|---------------|---|----------------------------------|
| Web Browser | <ul style="list-style-type: none"> • Microsoft® Internet Explorer 5.5 + Service Pack2 or later • Netscape Communicator 4.5 or later | Either web browsers may be used. |

- For ETERNUS3000 (except model 50), and ETERNUS4000 models 80 and 100, use:

| Software type | Software name | Remarks |
|---------------|---|----------------------------------|
| Web Browser | <ul style="list-style-type: none"> • Microsoft® Internet Explorer 6.0 + Service Pack1 or later • Netscape 6.0 or later (Windows® environment) | Either web browsers may be used. |

- For ETERNUS4000 models 300, 400, 500, and 600 or higher, and ETERNUS8000, use:

| Software type | Software name | Remarks |
|---------------|--|---------------------------------------|
| Web Browser | <ul style="list-style-type: none"> • Microsoft® Internet Explorer 6.0 + Service Pack2 • Microsoft® Internet Explorer 7.0 • Netscape 6.0 or later (Windows® environment) | Any of these web browser may be used. |

- For ETERNUS6000, use:

| Software type | Software name | Remarks |
|---------------|---|----------------------------------|
| Web Browser | <ul style="list-style-type: none"> • Microsoft® Internet Explorer 6.0 or later • Netscape 6.0 or later (Windows® environment) | Either web browsers may be used. |

When a Web browser other than the ones listed above or an older version Web browser is used, the screen display may be abnormal.

1.5 Installation Notes

1.5.1 Web and Mail Server Installation and Setup

To install the Web server and mail server, follow the procedures appropriate to the given software. For the Web server, setup the following two public directories.

- ETERNUSmgr Alarm History Files Directory
- ETERNUSmgr Top Menu Directory

The Web server must be set to allow the contents of the Alarm History Files Directory to be displayed. Note also that in the setup file (default filename "STXPOLL_1.INI") the HTML_ALARMFILE_PATH parameter must be set to the Alarm History Files Directory.

Caution:

The alarm history files must be saved in a directory immediately under the directory in which the ETERNUSmgr Top Menu is installed.

See "ETERNUSmgr User Guide -Introduction-" for the details of the setup file.

1.5.2 Web Directory and Web Directory Files

Files in the Web directory (may be changed at installation) created in the installation directory are ETERNUSmgr screen files (top menu files). Copy the edited top menu ("menu.htm") and other related files to an appropriate directory on the Web server containing the menu.

Note that the files need not be copied when the directory specified at installation is used and changed as the location for the top menu, however if the menu is to be edited the top menu should be saved under another name.

1.5.3 Editing the Top Menu File

As the ETERNUSmgr changes the content of the top menu ("menu.htm") in accordance with the device's status at ETERNUSmgr start-up, do not overwrite or open the top menu with an editor during ETERNUSmgr start-up. Always terminate ETERNUSmgr before making any changes to the top menu.

1.5.4 ETERNUSmgr Re-installation

If ETERNUSmgr or GRmgr is already installed in a server where you want to install ETERNUSmgr, uninstall the previous ETERNUSmgr or GRmgr before installing ETERNUSmgr. ETERNUSmgr is compatible with GRmgr V10L30 or later regarding logical operation, data files, log files, etc. (it is not compatible with GRmgr V10L20 or earlier). ETERNUSmgr can use setting file of GRmgr V10L30 or later. Before uninstalling GRmgr, make a backup of any setting or log files, if necessary. For details, refer to "ETERNUSmgr compatibility with GRmgr" in "Chapter 5 Cautions" in "ETERNUSmgr User Guide -Introduction-".

1.5.5 Solaris 10 OS Server & Zoning

When a Solaris 10 OS server is used with zoning, ETERNUSmgr must be installed in the global zone. It cannot be installed in a non-global zone. After the "preinstall: this package must be installed in the global zone" message appears and installation is completed, it is necessary to uninstall ETERNUSmgr. For details, refer to ["Chapter 2 Uninstalling ETERNUSmgr" \(page 13\)](#).

1.6 Procedure

1

This describes how to install ETERNUSmgr.

Before installing ETERNUSmgr, check that ETERNUSmgr or GRmgr has not already been installed by executing the following command. If ETERNUSmgr or GRmgr has already been installed, uninstall it, before installing ETERNUSV20L20.

```
Format:      pkginfo FJSVgrmgr
```

Execute the `"/bin/sol/ETERNUSV20L30.PKG"` package included in the CD-ROM according to the format outlined below. Also, be sure to install as the superuser.

```
Format:      pkgadd -d ETERNUSV20L30.PKG
```

Procedure

1 Login as the superuser, and go to the directory where the install package is located.

2 Follow the above format and enter the "pkgadd" command.

For example, when installing ETERNUSV20L30

```
# pkgadd -d ETERNUSV20L30.PKG
```

3 Select the package you wish to install, and press the [Enter] key.

Press the [Enter] key, or enter "1" and press the [Enter] key.

(message displayed)

```
# The next package can be used.:
#  1  FJSVgrmgr      ETERNUSmgr for Solaris
#                               (sparc) V20L30
#
# Select package(s) you wish to process (or 'all' to process
# all packages). (default: all) [?,??,q]:
```

4 Enter the directory name where ETERNUSmgr is to be installed and press the [Enter] key.

- To use the default directory
Press the [Enter] key.
(The default setting is `"/opt/FJSVgrmgr"`.)
- To change the installation directory
Enter a directory name and press the [Enter] key.

(message displayed)

```
# Which directory do you want to put the ETERNUSmgr?
# (default: /opt/FJSVgrmgr)
```

5 Select the type of target device.

The character string for the selected device is assigned to the "TARGET_TYPE" parameter in the setup file ("STXPOLL_1.INI"), while a device type flag (1=ETERNUS3000/GR710/GR720/GR730, 2=ETERNUS6000/GR740/GR820/GR840, 4=ETERNUS2000/ETERNUS4000/ETERNUS8000) is assigned to the "TARGET_FLAG" parameter.

(message displayed)

```
# Select target type.
# 1=ETERNUS2000 2=ETERNUS3000 3=ETERNUS4000 4=ETERNUS6000 5=ETERNUS8000
6=GR710 7=GR720 8=GR730 9=GR740 10=GR820 11=GR840
# ([1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11] default: 1=ETERNUS2000)
```

Caution:

The procedure to enter the Target Address ([Step 8](#)) will vary depending on which device type is selected here.

6 Enter the name of the directory in which ETERNUSmgr Top Menu is to be installed, and press the [Enter] key.

- To use the default directory

Press the [Enter] key.

(The default directory specifying the installation directory of ETERNUSmgr is followed by "/www".)

Note:

If the name of the directory specified to install ETERNUSmgr is the default, the default directory when selecting the Target Type will be "/opt/FJSVgrmgr/www".

- To change the installation directory

Specify a directory name and press the [Enter] key.

(message displayed)

```
# Which directory do you want to put the www file?
# (default: /opt/FJSVgrmgr/www)
```

7 Enter the URL.

Enter the URL for the directory in which ETERNUSmgr Top Menu is located. (This URL is assigned to the ETERNUSmgr Top Menu directory by the Web server settings.)

Enter the URL starting with "http://" and finishing with the alias name.

(message displayed)

```
# Input your www server URL.
# (default: http://)
```

8 Enter the Target Address allocated to the device.

The value entered here is set to the "TARGET_ADDR" parameter of the "STXPOLL_1.INI" file. Specify the IP address of the SVP when using SVP with the ETERNUS6000.

(message displayed)

```
# Input target address (TARGET_ADDR).
# (default: 0.0.0.0)
```

9 Set the ETERNUSmgr e-mail notification function.

When the ETERNUSmgr e-mail notification function is to be used, set as follows:

a Enter the ETERNUSmgr Admin Mail Address.

ETERNUSmgr will send messages to the mail address entered here when a change of status occurs in the device.

The value entered here is set to the "ADMIN_MAIL" parameter in the "STXPOLL_1.INI" file.

(message displayed)

```
# Input ETERNUSmgr administrator mail address (ADMIN_MAIL).
# (default: root@domain-name)
```

Note the following if you do not use the ETERNUSmgr e-mail notification function.

Caution:

The "ADMIN_MAIL" parameter may be omitted in ETERNUSmgr in order to disable the e-mail notification function. Note that the e-mail notification function cannot be disabled by omitting the e-mail address at installation, and the setup file must therefore be edited to disable "ADMIN_MAIL". See "Chapter 2 Setup" in the "ETERNUSmgr User Guide -Introduction-" for details of editing the setup file.

If the mail settings are correct, ETERNUSmgr sends an e-mail which includes the following message to the administrator when ETERNUSmgr is started.

```
"ETERNUSmgr VxxLxx - HTTP Polling engine was started."
 *VxxLxx refers to the version/level number.
```

If no e-mail is sent to the administrator when ETERNUSmgr is started, the mail settings are incorrect. Check whether the contents of the setup file are correct, and if there are any problems in the transmission link.

Refer to "Chapter 3 Startup and Shutdown" in "ETERNUSmgr User Guide -Introduction-" for details of starting ETERNUSmgr.

10 Check setup.

- If the settings are correct
Enter "y" and press the [Enter] key.
- If the settings are incorrect
Enter "n" and press the [Enter] key.
→ This will return you to [Step 4](#).
- To terminate installation
Press the [Ctrl] + [C] keys simultaneously.
→ Installation will be terminated.

(example of displayed message)

```
# Install Directory           = "/opt/FJSVgrmgr"
# WWW File Directory         = "/opt/FJSVgrmgr/www"
# WWW Server URL             = "http://"
# Target Type                = "ETERNUS3000"
# Target Address             = "192.168.1.1"
# ETERNUSmgr Admin Mail Address = "root@domain-name"
#
# Configuration OK?
```

11 When the following message appears, enter "y" to continue the installation.

Enter "n" to terminate the installation.

(message displayed)

```
# Do you want to continue with the installation of <FJSVgrmgr> [y,n,?]
```

12 Installation is complete.

If installation completed normally, the following message will appear:

(message displayed)

```
# Installation of <FJSVgrmgr> was successful.
```

Follow the procedure above to copy the necessary files to the specified installation directory. See "Chapter 2 Setup" in the "ETERNUSmgr User Guide -Introduction-" for the necessary settings for ETERNUSmgr operation.

The installer enters the following parameters from the information entered in the steps above in the setup file ("STXPOLL_1.INI").

- **Target Type**

```
# Polling Server Type
TARGET_TYPE = Target Type specified in Step 5 (Name)
```
- **Target Flag**

```
# Polling Server Flag
TARGET_FLAG = Device type file as specified in Step 5 (1=ETERNUS3000, GR710, GR720, GR730,
2=ETERNUS6000, GR740, GR820, GR840, 4=ETERNUS2000, ETERNUS4000, ETERNUS8000)
```
- **Target Address**

```
# Polling Server Address
TARGET_ADDR = Target Address specified in Step 8
```
- **Admin Mail Address**

```
# Admin Mail Address
ADMIN_MAIL = Mail Address specified in Step 9
```
- **Alarm History Files Directory**

```
# HTML File Save PATH
HTML_ALARMFILE_PATH = Directory name specified in Step 6 followed by "/html_1"
```
- **Alarm History Index URL**

```
# HTTP Server Address
HTML_ALARMFILE_URL = URL specified in Step 7 followed by "/html_1"
```
- **Log Files Directory**

```
# Log File Saved PATH
LOGFILE_PATH = Directory name specified in Step 4 followed by "log_1"
```

The parameters of the setup file can be edited after installation.

Upload the ETERNUSmgr Top Menu installation directory specified in [Step 6](#) to the Web server. For information on how to perform these settings, refer to the Web server manual for further details.

The following files are installed to the specified installation directory.

- stxpoll
- stxchk
- _STXPOLL.INI
- STXPOLL_1.INI
- stxpoll
- www/index.htm (NOTE)
- www/menu.htm (NOTE)
- www/fujitsu.gif, www/eternus.gif (NOTE)

NOTE) The above files are installed to the ETERNUSmgr Top Menu installation directory specified in [Step 6](#).

The following explains each file.

stxpoll

ETERNUSmgr daemon.

stxchk

Checks the ETERNUSmgr setup file.

_STXPOLL.INI, STXPOLL_1.INI

Setup file of the ETERNUSmgr. Edit the contents by text editor if necessary.
_STXPOLL.INI file is a template file.

Caution:

Refer to the "ETERNUSmgr User Guide -Introduction-" when editing these setup files. Edit only parameters described in the guide. Do not delete comments or blank lines in the setup files during installation, and do not add anything other than parameters. Failure to follow these instructions may hinder performance and cause problems during future upgrades.

The following format should be used for the file names.

| | |
|---------|----------|
| Format: | STX~.INI |
|---------|----------|

If a file name is in a format other than specified above, ETERNUSmgr will not be able to find the file. The only place the setup file can be saved is the installation directory. If saved to another directory, the ETERNUSmgr cannot recognize where the setup files are saved.

Caution:

The "STX~.INI" file name format must never be given to non-setup files in the installation directory since, whether they are setup files or not, ETERNUSmgr will attempt to read all such "STX~.INI" files, with unforeseeable and potentially fatal results. If you want to make backup files, save them with a different file name format, or save them outside of the installation directory to prevent ETERNUSmgr from attempting to use them.

ETERNUSmgr allows multiple setup files to be stored in the installation directory, so error monitoring can be carried out for the specified devices using the respective files. However, multiple monitoring settings cannot be made for one device. If multiple setup files for the same device are detected, a warning message will appear and ETERNUSmgr will not start up. For further details, refer to "2.5 Monitoring Multiple Target Devices" in the "ETERNUSmgr User Guide -Introduction-".

stxpoll

Execution control script for starting up or stopping the ETERNUSmgr.

www/index.htm

This file contains the initial screen. After 5 seconds, it automatically jumps to the ETERNUSmgr Top Menu.

To use this file, copy it to a directory under the Web server where the top menu is stored.

During installation, there is no need to copy this file to the specified directory under the top menu if the default directory is used.

www/menu.htm

This file contains ETERNUSmgr Top Menu.

To use this file, edit it after copying it to a directory under the Web server where the top menu is stored. During installation, there is no need to copy this file to the specified directory under the top menu if the default directory is used. In this case, make a backup of this file ("menu.htm") and save it under a different name.

`www/fujitsu.gif`, `www/eternus.gif`

These are the images used by the ETERNUSmgr screens.

To use them, copy them to a directory under the Web server where the top menu is stored.

During installation, there is no need to copy these files to the specified directory under the top menu if the default directory is used.

Caution:

- The "`www/index.htm`," "`www/menu.htm`," "`www/fujitsu.gif`," and "`www/eternus.gif`" files must be copied to the same directory under the Web server where ETERNUSmgr Top Menu is stored.
- Always perform the copy operation stated above when ETERNUSmgr is in a stopped state. In addition, if the copy destination of files "`www/index.htm`," "`www/menu.htm`," "`www/fujitsu.gif`" and "`www/eternus.gif`" is different from the location at installation, make sure to copy them to the same directory, edit all the setup files ("`STX~.INI`"), and specify the copy destination for "`HMTL_ALARMFILE_PATH`". Also, set the link to the alarm file for each device described under "Show hardware error detect log list" in the top menu ("`menu.htm`") to be the same as the setup file's "`HTML_ALARMFILE_PATH`".

See "ETERNUSmgr User Guide -Introduction-" for the procedures for editing individual files.

1.7 Daemon Registration

This section describes how to register the ETERNUSmgr daemon. The location and procedure to register the daemon may vary depending on the server settings (registration locations vary with the run level). Consult with the server administrator to register a daemon.

Procedure

- 1** Log in as the superuser.
- 2** Copy the execution control script to the `/etc/init.d/` directory.

```
# cp /opt/FJSVgrmgr/stxpoll /etc/init.d/
```

- 3** Create the link to the appropriate `rc*.d` directory.

```
# ln -s /etc/init.d/stxpoll /etc/rc2.d/Snnstxpoll (nn is a number)
```

"*nn*" in `Snnstxpoll` indicates the order of priority. Set any order of priority. Consult with the server administrator for setting priority.

```
(Example) # ln -s /etc/init.d/stxpoll /etc/rc2.d/S98stxpoll
```

The ETERNUSmgr will be automatically started as a daemon from the next server startup. Make sure that ETERNUSmgr has begun communication with the device by checking the log file after server startup.

Chapter 2

Uninstalling ETERNUSmgr

2

This chapter describes how to uninstall ETERNUSmgr.

Always terminate ETERNUSmgr before uninstalling.

For details of terminating ETERNUSmgr, refer to "Chapter 3 Startup and Shutdown" in the "ETERNUSmgr User Guide -Introduction-."

Use the "pkgrm" command to uninstall.

```
Format:      pkgrm FJSVgrmgr
```

Procedure

- 1 Log in as the superuser.
- 2 Follow the above format and enter the "pkgrm" command.

```
# pkgrm FJSVgrmgr
```
- 3 Enter the "y" and press the [Enter] keys for the "Do you want to remove this package?" prompt.

When ETERNUSmgr is registered as a daemon, ensure that the created links and copied run control script are also deleted.

Before uninstalling, save the setup file ("STX~.INI") in the ETERNUSmgr installation directory as necessary. The setup file contains the device IP address and administrator's e-mail address etc., and may be useful as reference when installing ETERNUSmgr again. The log file and Alarm history files generated when ETERNUSmgr is started contain a cumulative history of the operating status for the ETERNUSmgr and the device, and should be saved as necessary.

When uninstalling ETERNUSmgr, all files may not be deleted in some cases, and the remaining files and directories must therefore be deleted manually.

(When ETERNUSmgr installation directory is "/opt/FJSVgrmgr.")

```
# rm -r /opt/FJSVgrmgr
```

After uninstalling ETERNUSmgr, verify prior to the new installation that the directory does not exist, or that the directory does not contain files or directories, before reinstalling in the same directory. If installed again while previous ETERNUSmgr or GRmgr files exist, the installation may not be completed, or may not operate correctly. This is particularly relevant when the previous setup file ("STX~.INI") remains and is later detected by ETERNUSmgr during operation.

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Appendix A

How to Set Up the Web Server

A

In addition to installing ETERNUSmgr, your Web server may need to be appropriately set up to enable faults to be monitored and the device status displayed using a Web browser.

This appendix introduces an example of how to setup apache, a typical Web server.

The following describes an example of "apache 1.3.12" as the Web server. The directory configuration to be installed, setup method, and name or content of setup file sometimes vary according to differences between apache versions and the version of the OS. If the settings of the apache you are using are not as shown in this example, rewrite the relevant items.

ETERNUSmgr is not dependent on Web server type. However, the Web server should have the capability to display an appropriate directory list for an HTML format log file list. Also, ETERNUSmgr does not recommend or guarantee use of apache as the Web server.

For details on how to install the Web server or the setup method, refer to the relevant documents (User's Manual of the Web server you are using, etc.).

■ Example1

Setting up the ETERNUSmgr Top Menu directory as the Web server top public directory (root) when installing ETERNUSmgr using the default settings.

[Assumptions]

- apache is already installed under the following directory configuration
 - Root path for apache HTML document : "/home/httpd/html"
 - Full path of apache setup file : "/etc/httpd/conf/httpd.conf"
- ETERNUSmgr is installed under the following settings
 - Directory of top menu : "/opt/FJSVgmrgr/www"
 - URL for above directory : "http://(Web server name. domain name)/"

[Web server setup procedure]

- 1 Open the apache setup file "httpd.conf" in an editor (e.g. vi).
- 2 Search for the line described as "DocumentRoot" in "httpd.conf."
(example of "httpd.conf")

```
#
# DocumentRoot: The directory out of which you will serve your
# documents. By default, all requests are taken from this directory, but
# symbolic links and aliases may be used to point to other locations.
#
DocumentRoot "/home/httpd/html"
```

3 Correct the path set in "DocumentRoot" to the directory of the ETERNUSmgr Top Menu. (Change underlined section below.)

(example of "httpd.conf")

```
#
# DocumentRoot: The directory out of which you will serve your
# documents. By default, all requests are taken from this directory, but
# symbolic links and aliases may be used to point to other locations.
#
DocumentRoot "/opt/FJSVgrmgr/www"
```

4 Add the directory option setting (setting to display the directory list).

```
<Directory "/opt/FJSVgrmgr/www">
  DirectoryIndex index.htm
  Options Indexes MultiViews
  AllowOverride None
  Order allow,deny
  Allow from all
</Directory>
```

5 Reboot apache.

■ **Example 2**

Setting up the ETERNUSmgr Top Menu directory as a Web server public directory ("/ETERNUSmgr") when installing ETERNUSmgr using the default settings.

[Assumptions]

- apache is already installed under the following directory configuration
Root path for apache HTML document : "/home/httpd/html"
Full path of apache setup file : "/etc/httpd/conf/httpd.conf"
- ETERNUSmgr is installed under the following settings
Directory of top menu : "/opt/FJSVgrmgr/www"
URL for above directory : "http://(Web server name. domain name)/ETERNUSmgr"

[Web server setup procedure]

1 Open the apache setup file "httpd.conf" in an editor (e.g. vi).

2 Search for the line described as "Alias" in "httpd.conf."

(example of "httpd.conf")

```
#
# Note that if you include a trailing / on fakename then the server will
# require it to be present in the URL. So "/icons" isn't aliased in this
# example, only "/icons/"..
#
Alias /icons/ "/home/httpd/icons/"
<Directory "/home/httpd/icons">
  Options Indexes MultiViews
  AllowOverride None
  Order allow,deny
  Allow from all
</Directory>
```

3 Add the directory of the ETERNUSmgr Top Menu to the apache Alias. (Add underlined section below.)

(example of "httpd.conf")

```
#
# Note that if you include a trailing / on fakename then the server will
# require it to be present in the URL.  So "/icons" isn't aliased in this
# example, only "/icons/".
#
Alias /icons/ "/home/httpd/icons/"
<Directory "/home/httpd/icons">
    Options Indexes MultiViews
    AllowOverride None
    Order allow,deny
    Allow from all
</Directory>

Alias /ETERNUSmgr/ "/opt/FJSVgrmgr/www/"
<Directory "/opt/FJSVgrmgr/www">
    Options Indexes MultiViews
    AllowOverride None
    Order allow,deny
    Allow from all
</Directory>
```

4 Reboot apache.

■ Example 3

Setting up the ETERNUSmgr Top Menu in the previously used Web server public directory when installing ETERNUSmgr.

[Assumptions]

- apache is already installed under the following directory configuration

| | |
|------------------------------------|--------------------------------|
| Root path for apache HTML document | : "/home/httpd/html" |
| Full path of apache setup file | : "/etc/httpd/conf/httpd.conf" |
- ETERNUSmgr is installed under the following settings

| | |
|-------------------------|--|
| Directory of top menu | : "/home/httpd/html/ETERNUSmgr" |
| URL for above directory | : "http://(Web server name. domain name)/ETERNUSmgr" |

[Web server setup procedure]

Note:

When the directory of the ETERNUSmgr Top Menu is created under the root path of the apache HTML document, and the name of the URL directory matches the name of the directory under the root path, measures such as changing the setup on apache or restarting the Web server are not required.

In [Example 1](#) and [Example 2](#) introduced above, the Web server needs to be rebooted. For example, when apache is set to automatically restart after the OS is rebooted, and the startup shell script is "/etc/init.d/httpd," apache can be restarted by the following method:

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

For details, refer to the relevant materials for the Web server you are using.

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