

Enhanced Support Facility 3.0 INSTALLATION GUIDE for Solaris™ Operating System

The Customer acknowledges and agrees that the Product is designed, developed and manufactured as contemplated for general use, including without limitation, general office use, personal use, household use, and ordinary industrial use, but is not designed, developed and manufactured as contemplated for use accompanying fatal risks or dangers that, unless extremely high safety is secured, could lead directly to death, personal injury, severe physical damage or other loss (hereinafter "High Safety Required Use"), including without limitation, nuclear reaction control in nuclear facility, aircraft flight control, air traffic control, mass transport control, medical life support system, missile launch control in weapon system. The Customer, shall not use the Product without securing the sufficient safety required for the High Safety Required Use. In addition, Fujitsu (or its agents) shall not be liable against the Customer and/or any third party for any claims or damages arising in connection with the High Safety Required Use of the Product.

Preface

■ Purpose

This document explains the procedures from installing Enhanced Support Facility to defining the environment. Enhanced Support Facility 3.0 supports the following models and operating systems:

- Supported models
 - PRIMEPOWER250/450/650/850/900/1500/2500
 - SPARC Enterprise Server
- Supported operating systems
 - Solaris 8 OS, Solaris 9 OS, and Solaris 10 OS

■ Intended Readers

This document is intended for system administrators who use the Enhanced Support Facility. Readers of this document should understand computer network concepts and terminology and have basic knowledge of the system management of the Solaris(TM) operating system (hereinafter referred to as Solaris OS).

■ Organization

This document is organized as follows:

Chapter 1 Program Components

Chapter 1 explains the programs that constitute the system.

Chapter 2 Online Manuals

Chapter 2 explains the online manuals related to Enhanced Support Facility.

Chapter 3 Operating Environment

Chapter 3 explains the operating environment of this product.

Chapter 4 Restrictions and Notes

Chapter 4 explains restrictions and provides notes.

Chapter 5 Installation

Chapter 5 explains the procedure for installing Enhanced Support Facility.

Chapter 6 Extended Installation

Chapter 6 explains the procedure for extended installation of Enhanced Support Facility.

Appendix

The Appendix explains supplementary items.

■ Trademark Acknowledgements

UNIX is a registered trademark of The Open Group in the United States and other countries.

Sun, Solaris, HotJava and SunVTS are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

Microsoft is a registered trademark of Microsoft Corporation in the United States and/or other countries.

Adobe and Acrobat are trademarks or registered trademarks of Adobe System Incorporated in the United States and /or other countries.

Netscape, Netscape Navigator and Netscape Communications are trademarks of Netscape Communications Corporation in the United States and in other countries.

PostScript is a trademark of Adobe System, Incorporated.

All other trademarks or registered trademarks are the property of their respective companies.

Copyright 1998- Sun Microsystems, Inc. All rights reserved.

Copyright 1995- GLOBEtrotter Software, Inc.

Copyright 1995- Software Research Associates, Inc.

All Rights Reserved.

■ Notations Used

System Control Facility driver is abbreviated to the following: SCF driver.

System Control Facility hardware is abbreviated to the following: SCF.

This documents also uses abbreviations for the names of supported models.

For the relationship between abbreviations and platform names, see below.

Model name	Abbreviation	Platform
PRIMEPOWER 250/450	PW-P	FJSV, GPUZC-M(P)
PRIMEPOWER 650 (Model equipped with SPARC64™ GP) /850 (Model equipped with SPARC64™ GP)	PW-CM	FJSV, GPUSC-M
PRIMEPOWER 650 (Model equipped with SPARC64™ V) /850 (Model equipped with SPARC64™ V)	PW-CMZ	FJSV, GPUZC-M
PRIMEPOWER 1500 (Model equipped with SPARC64™ GP)	PW-CL	FJSV, GPUSC-L
PRIMEPOWER 900/1500 (Model equipped with SPARC64™ V) /2500	PW-CLZ	FJSV, GPUZC-L
SPARC Enterprise T1000/T2000/T5120/T5220	LE	SUNW, SPARC-Enterprise-T1000 SUNW, SPARC-Enterprise-T2000 SUNW, SPARC-Enterprise-T5120 SUNW, SPARC-Enterprise-T5220
SPARC Enterprise M4000/M5000/M8000/ M9000	CW	SUNW, SPARC-Enterprise

Revision History

Edition	Date	Description
1-A	August 29, 2006	First Edition
1-B	January 31, 2007	Changed descriptions in Appendix D.1.3. C120-E315-01ENZ2 (B)
2	April 18, 2007	Added URL for the reference to manuals for SPARC Enterprise Server. Added the installation procedure from Patch CD-ROM. 5.2.3 5.3.5 6.5.5.2 Added the espatchadd(1M) command in Appendix A.4.
3	May 22, 2007	Manuals & Patches A20
4	March 07, 2008	Manuals & Patches A30 <ul style="list-style-type: none">- 3.1 No3 SUNWfns and FJSVcpc are deleted.- Added SPARC Enterprise T5120/T5220.- Changed descriptions in Appendix C.- Added Logical Domain Manager.

Contents

Preface	2
Revision History	4
Chapter 1 Program Components	9
Chapter 2 Online Manuals	12
2.1 Manuals Related to Enhanced Support Facility.....	12
2.2 Referencing Methods	14
2.2.1 Referencing methods (PDF format)	14
2.2.1.1 Using a PC.....	14
2.2.1.2 Using a Solaris(TM) operating system	14
2.3 Printed Manual (Supplied with the Product)	14
Chapter 3 Operating Environment	15
3.1 Software Environment	15
3.2 Hardware Environment	18
3.3 Static Disk Requirements	18
3.3.1 Disk requirements	18
3.3.2 Work area requirements.....	18
3.4 Dynamic Disk Resources	19
3.4.1 Disk space requirements.....	19
3.5 Memory Requirements.....	20
3.6 Swap Space	20
Chapter 4 Restrictions and Notes	21
4.1 Restrictions	21
4.2 Cautions when Upgrading.....	21
4.2.1 User data compatibility	21
4.2.2 Environment definition file compatibility	21
4.3 Notes	21
Chapter 5 Installation.....	23
5.1 Models to be Installed	24
5.2 Installation.....	25
5.2.1 Notes on installation.....	25
5.2.2 Installation time.....	25
5.2.3 Installing Enhanced Support Facility	25
5.2.4 Messages appearing during installation.....	29
5.2.5 Environment setting after installation.....	32
5.2.6 Applying modifications	34
5.3 Update Installation	35
5.3.1 Notes on installation.....	35
5.3.2 Installation time.....	35
5.3.3 Checking the system environment.....	35
5.3.4 Saving the environment setting file	38
5.3.4.1 DR Command.....	38
5.3.4.2 SCF Driver	38
5.3.4.3 SCF/SCSI Fault LED support option	38
5.3.4.4 Web-Based Admin View/WWW Server for Admin View	38
5.3.4.5 Machine Administration/Remote Support	38
5.3.4.6 Auto Power Control System	38
5.3.4.7 System Management Console	38
5.3.5 Installing Enhanced Support Facility	39
5.3.6 Messages appearing during installation.....	41
5.3.7 Restoring the environment settings file	44
5.3.7.1 DR Command.....	44
5.3.7.2 SCF Driver	44
5.3.7.3 SCF/SCSI Fault LED support option	44
5.3.7.4 Web-Based Admin View/WWW Server for Admin View	44

5.3.7.5 Machine Administration/Remote Support	44
5.3.7.6 Auto Power Control System	44
5.3.7.7 System Management Console	44
5.3.8 Environment setting after installation.....	45
5.3.9 Applying modifications	48
5.4 Removing Enhanced Support Facility.....	49
5.4.1 Removing the software.....	49
5.5 About Logical Domains	53
5.5.1 Flowchart of Building Logical Domains Environment	54
5.5.2 Building procedure for the Enhanced Support Facility in the Control Domain.....	55
5.5.3 Building Procedure for the Enhanced Support Facility in the Guest Domain	56
Chapter 6 Extended Installation	57
6.1 OS Upgrade Installation	57
6.1.1 Upgrade workflow	57
6.1.2 Saving the Enhanced Support Facility environment setting file.....	58
6.1.3 Uninstalling Enhanced Support Facility	58
6.1.4 Installing the OS.....	58
6.1.5 Installing Enhanced Support Facility	58
6.1.6 Restoring the environment setting file of Enhanced Support Facility	58
6.2 Custom JumpStart	59
6.2.1 Support environment	59
6.2.2 Procedure	59
6.2.2.1 Copying the CD-ROM images to directories on the installation server.....	59
6.2.2.2 Installation script for Enhanced Support Facility	59
6.2.2.3 Flowchart of Building Logical Domains Environment.....	61
6.2.2.4 Building Procedure for the Control Domain.....	61
6.2.2.5 Building Procedure for the Guest Domain	61
6.2.3 Notes	61
6.3 Flash Archive Installation.....	62
6.3.1 Procedure for creating a flash archive	63
6.3.1.1 Installing the OS.....	63
6.3.1.2 Installing Enhanced Support Facility	63
6.3.1.3 Creating a flash archive	64
6.3.1.4 Notes on creating a flash archive.....	64
6.3.2 Installation procedure using a flash archive	65
6.3.2.1 Custom jump installation using a flash archive	65
6.3.2.2 Installing a flash archive in the clone system	65
6.3.2.3 Flowchart of Building Logical Domains Environment.....	66
6.3.2.4 Building Procedure for the Control Domain.....	66
6.3.2.5 Building Procedure for the Guest Domain	66
6.3.3 Setting the Enhanced Support Facility environment after flash archive installation	67
6.3.4 Notes on flash archiving.....	68
6.4 Specifying a Component Group for Installation.....	70
6.4.1 Notes on using the component group specification option.....	70
6.4.2 Component groups	70
6.4.3 Specifying a component group for installation.....	71
6.4.3.1 Flowchart of Building Logical Domains Environment.....	73
6.4.3.2 Building Procedure for the Control Domain.....	73
6.4.3.3 Building Procedure for the Guest Domain	73
6.5 Solaris Live Upgrade.....	74
6.5.1 Restrictions.....	74
6.5.2 Upgrade procedure.....	74
6.5.2.1 Preparation for creating "New Boot Environment" and confirming environment	75
6.5.2.1.1 Checking the system environment.....	75
6.5.3 Creating a New Boot Environment and Deleting Software.....	75
6.5.3.1 Creating and mounting a new boot environment.....	75
6.5.3.2 Saving the environment settings files	76

6.5.3.2.1 Package containing environment settings files	76
6.5.3.2.2 Saving environment settings files.....	77
6.5.3.3 Deleting the software from new boot environment	78
6.5.3.4 Unmounting the new boot environment	80
6.5.3.5 Removing the CD-ROM	80
6.5.4 Upgrading the Operating Environment	81
6.5.5 Installing Software	81
6.5.5.1 Mounting the new boot environment.....	81
6.5.5.2 Installing this software in the new boot environment.....	81
6.5.6 Restoring Environment Data in the New Boot Environment	84
6.5.7 Switching the Boot Environment	85
6.5.7.1 Unmounting the new boot environment	85
6.5.7.2 Switching the active boot environment	85
6.5.7.3 Starting the system in the new boot environment.....	85
6.5.8 Restoring the environment after starting the new boot environment.....	86
6.5.8.1 Restoring the environment	86
6.5.8.2 Restarting Web-Based Admin View/WWW Server for Admin View	86
6.5.8.3 Environment setting after installation.....	86
6.6 Installation in a Partition	86
6.7 Unified Installer	87
Appendix A Command Reference	88
A.1 esfadd (1M)	88
A.2 esfrm (1M)	89
A.3 esfver (1M).....	91
A.4 esfpachadd (1M)	94
Appendix B Component Programs by Model	96
B.1 Solaris™ 8 Operating System	96
B.2 Solaris™ 9 Operating System	98
B.3 Solaris™ 10 Operating System	100
B.3.1 PRIMEPOWER (250/450/650/850/900/1500/2500)	100
B.3.2 SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/ M8000/M9000 (CW/LE)	102
Appendix C Troubleshooting.....	103
C.1 Resolution of problems which occur when package is installed.....	103
C.1.1 Resolution of problems which occur when package is installed (I).....	104
C.1.2 Resolution of problems which occur when package is installed (II).....	105
C.1.3 Resolution of problems which occur when package is installed (III).....	106
C.1.4 Resolution of problems which occur when package is installed (IV).....	107
C.1.5 Resolution of problems, which occurred when package is installed (V).....	108
C.2 Resolution of problems which occur when package was removed.....	109
C.2.1 Resolution of problems, which occurred when package was removed (I).....	109
C.2.2 Resolution of problems, which occurred when package was removed (II).....	110
C.3 When the patches fail to be applied	111
Appendix D Notes.....	112
D.1 Mounting the CD-ROM	112
D.1.1 PRIMEPOWER900/1500/2500.....	112
D.1.2 PRIMEPOWER250/450/650/850.....	112
D.1.2.1 Solaris 8 OS.....	112
D.1.2.2 Solaris 9 OS or Solaris 10 OS	112
D.1.3 SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/ M9000.....	113
D1.3.1 Using a built-in DVD drive	113
D1.3.2 Mounting a CD-ROM of an installation server	113
D.2 Solaris network installation using DHCP service.....	114
D.3 Notes on FJVTs	115
D.3.1 Notes under Solaris 10 installation	115
D.3.2 Action at the FJVTs failure.....	115
Appendix E Bundled Drivers	117

Chapter 1 Program Components

The programs that are components forming a system are called a package. This software product consists of the components and packages listed in the following table.

For the program configuration of each model, see Appendix B, "Component Programs by Model."

No.	Component	Package	VL	Function
1	Enhanced Support Facility Information Management	FJSVbse	3.0	Installation management of Enhanced Support Facility
2	DR, NGDR, IKPDR command	FJSVdrcmd FJSVdr FJSVdropl	1.8 1.3 1.0	Dynamic Reconfiguration command (64 bit)
3	SCF Driver	FJSVscd3 FJSVscr3 FJSVscu3 FJSVscuj3 FJSVpscd FJSVpscr FJSVpscu FJSVpscuj	1.3 1.3.1 1.3.1 1.3 1.1 1.1 1.1.1 1.1	GP7000 series and PRIMEPOWER series The SCF driver is equipped with the Reliability, Availability, and Serviceability (RAS) function that controls System Control Facility (referred to as SCF, in this document), which is included in each model of these series and required for server system operations.
4	SCF/SCSI Fault LED support option	FJSVscfsc	1.0	The SCF/SCSI Fault LED support option is optional software that supports the command for accessing the RCI interface included in high-end and mid-range SPARC Enterprise Server models and the DISK hot swapping of SCSI DISK provided by Machine Administration.
5	SunVTS,FJSVvts	SUNWvts SUNWvtsmn SUNWvtsx FJSVvts	5.1 5.1 5.1 5.1	Software used to diagnose hardware controllers and devices on unit
6	Web-Based Admin View WWW Server for Admin View	FJSVwvcnf FJSVwvbs	2.0.3 2.1.2	Common base for using the GUI (operation management view) of machine administration
7	Machine Administration	FJSVmasv FJSVmadm FJSVcmnd FJSVpmnd FJSVamadm FJSVamcl FJSVamle FJSVmaom	2.2.3 1.2.2 2.0 1.2.3 1.0.0 1.0.0 1.0.0 2.0	Machine Administration is software that supports repair work for any failure that occurs, by monitoring the status of main unit hardware.

No.	Component	Package	VL	Function
8	Remote Support	FJSVrlib FJSVragt FJSVrmaos FJSVrrda FJSVracm FJSVsirms FJSVcmrm FJSVcmrm2 FJSVpmrm FJSVamrm FJSVlmrm	8.2.2 2.9 2.9 2.9 2.9 4.0 1.6 1.2 1.3 1.0 1.0	The REMote Customer Support system (REMCS) is a system that provides operational support to customers 24 hours a day and 365 days a year through connections between the customers' equipment and the REMCS Center via networks.
9	Auto Power Control System	FJSVapcs FJSVapcsvw	1.4.0 2.0	Automatic powering on or off of main cabinet power to a specified schedule
10	Server Default Configuration	FJSVdef FJSVssf FJSVpnlx.us FJSVpnl.us FJSVwarn.us	1.2.4 2.0.2 2.1 2.1 1.3	Server Default Configuration provides a function for improving server maintainability.
11	System Data Output Tool	FJSVsnap	2.6	Collects data regarding command execution results, files about hardware and software configurations, environment settings, logs, and operational status, then outputs the system information for system fault analysis to a tape unit, etc.
12	Crash Dump Assistant	FJSVdmp	1.5	During the creation of a crash dump file at system reboot, Crash Dump Assistant invokes the "System Data Output Tool" to save necessary system data for problem investigation.
13	Auto Dump Analyze Tool	FJSVana	2.1	During the creation of a crash dump file at system reboot, Crash Dump Assistant invokes the "System Data Output Tool" to save necessary system data for problem investigation. This package contains a tool named cocore that gathers files that are necessary for analysis. For details of cocore, see /opt/FJSVana/doc/README.cocore(.ja).
14	Reliability Driver	FJSVsec	1.2.2 2.0.2 3.0	Serial port driver
15	G-LAN error notification	FJSVgidad.us	2.0.1	GigabitEthernet interface error notification function
16	G-LAN MTU setting	FJSVgidr.us	2.0.0	The script to set MTU changes when using JumboFrame for GigabitEthernet interface.
17	HCP	FJSVhcp	1.0	XSCF firmware and utility
18	System Parameter Diagnosis	FJSVparam	1.1	System Parameter Diagnosis detects and reports system settings that may interfere with normal operation of the Solaris(TM) operating system, which may therefore change the settings.
19	HRM-S	FJSVhrm FJSVhrmse	3.0.0 3.1.1	HardwareResourceMonitor (referred to as HRM, in this document) is a maintenance work support tool.

No.	Component	Package	VL	Function
20	Tape Driver Configuration Tool	FJSVdcnf	1.2	Tape Driver Definition Setting Tool is a tool that automatically sets a tape driver definition for use of a tape device that requires the tape driver definition to be set.
21	Patch Information Collect Command	FJSVpmgc	1.0	Patch Version Information Collection Command is a tool that increases efficiency in a series of tasks including investigating whether patches have been applied, downloading patches, and applying patches.

Chapter 2 Online Manuals

2.1 Manuals Related to Enhanced Support Facility

Those manuals are stored in PDF file format in the product Manuals & Patches A30 CD-ROM.

No.	Manual title	File name	Explanation
1	Enhanced Support Facility 3.0 Installation Guide	install-guide_ome.pdf	Enhanced Support Facility installation procedure
2	Enhanced Support Facility Update Information	update_ome.pdf	History of added or altered functions of each component
3	Enhanced Support Facility Security System Building Guide	security_guide_ome.pdf	Information on the daemons and services supported by each component
4	Enhanced Support Facility User's Guide	esfug_ome.pdf	Outline of the functions of individual components aggregated to Enhanced Support Facility

The following manuals are user's manuals of individual components, and they are provided as separate volumes.

No.	Manual title	File name	Explanation
1	Enhanced Support Facility User's Guide for Machine Administration	madm_ome.pdf	Explains the functions and operation method of Machine Administration.
2	Enhanced Support Facility User's Guide for REMCS	remcs_ome.pdf	Explains the setting method for enabling the REMCS function and the procedure for collecting software investigation information.
3	Enhanced Support Facility User's Guide for FJVTS (PRIMEPOWER)	fjvts_ome.pdf	Explains the method of starting FJVTS, options for each test, and error messages.
4	Enhanced Support Facility User's Guide for Dynamic Reconfiguration	dr_ome.pdf	Provides details of the Dynamic Reconfiguration (DR) function and DR command interface.
5	Enhanced Support Facility User's Guide for Dynamic Reconfiguration I/O device	drio_ome.pdf	Explains the procedure for hot swapping and hot expansion of file-related PCI cards and network-related PCI cards using the Dynamic Reconfiguration function.
6	Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER)	webview_ome.pdf	Provides a function outline and operation method of Web-Based Admin View.
7	System Parameter Diagnosis 1.1 User's Guide	param_ome.pdf	Explains the system parameter diagnosis for detecting system-setting errors.
8	Tape driver configuration tool 1.2 User's Guide	dcnf_ome.pdf	Explains the function that automatically sets a tape driver definition.
9	Enhanced Support Facility User's Guide for Redundant Console Path Features (PRIMEPOWER)	conspath_ome.pdf	Provides an outline of the console bus duplication function and explains how to operate the function.

No.	Manual title	File name	Explanation
10	Enhanced Support Facility User's Guide for System Control Facility (SCF) Driver (PRIMEPOWER)	scfdrv_ome.pdf	Explains the functions of the SCF driver that controls the SCF owned by each PRIMEPOWER series model and that provides the RAS function required for server system operation.
11	Enhanced Support Facility User's Guide for System Data Output Tool Features	fjsnap_ome.pdf	Provides an outline of the function of the system information collection tool and explains how to operate the tool.
12	Enhanced Support Facility User's Guide for eXtended System Control Facility (PRIMEPOWER)	xscf_ome.pdf	Explains the System Control Facility that supports monitoring control and operation/maintenance of the main units and systems of PRIMEPOWER series machines.
13	Enhanced Support Facility User's Guide for PCI Hot Plug (PRIMEPOWER)	phpug_ome.pdf	Explains the PCI Hot Plug function in detail.
14	Enhanced Support Facility User's Guide for PCI Hot Plug I/O device (PRIMEPOWER)	phpugio_ome.pdf	Explains the procedure for hot swapping and hot expansion of file-related PCI cards and network-related PCI cards using the PCI Hot Plug function.
15	Enhanced Support Facility User's Guide for Machine Administration Automatic power control function (Supplement edition)	apcs_ome.pdf	Explanation of Automatic power control function to SPARC Enterprise M4000/M5000/M8000/M9000.

Each manual is stored in the following directory on the Manuals & Patches A30 CD-ROM.
English manuals: /cdrom/cdrom0/manual.pdf/english/

2.2 Referencing Methods

2.2.1 Referencing methods (PDF format)

Manuals in the PDF file format are stored on the CD-ROM disk.

The latest version of Adobe(R) Reader(R) or Acrobat Reader from Adobe Systems Incorporated is required for viewing a PDF file.

Download the latest version of Adobe(R) Reader(R) or Acrobat Reader appropriate to your environment from the Adobe Systems Incorporated's Web site.

2.2.1.1 Using a PC

1) Insert the CD-ROM disk into the CD-ROM drive.

2) Use Acrobat Reader to open the file to be referenced.

Example: Referencing the Installation Guide (English)

CD-ROM drive:\MANUAL.PDF\ENGLISH\INSTALL-GUIDE_OME.PDF

2.2.1.2 Using a Solaris(TM) operating system

1) Insert the CD-ROM disk into the CD-ROM drive.

2) Use Acrobat Reader to open the file to be referenced.

Example: Referencing the Installation Guide (English)

```
/cdrom/manual.pdf/english/install-guide_ome.pdf
```

2.3 Printed Manual (Supplied with the Product)

None

Chapter 3 Operating Environment

To use this software, the following software and hardware prerequisites must be satisfied.

3.1 Software Environment

1) Basic Software prerequisites

Before you can use this software, one of the following Basic Software products must be installed.

No.	Name of Basic Software	Remarks
1	<p>Solaris 8</p> <p>To use this software on PRIMEPOWER system, the following packages are required.</p> <p>SUNWbtool, SUNWcslx, SUNWdltk, SUNWxwice, SUNWdcor, SUNWctpls, SUNWesu, SUNWxfnt, SUNWxirl, SUNWtoo, SUNWxildh, SUNWxwrtl, SUNWscpu, SUNWlibC, SUNWocfr, SUNWlpmg, SUNWpcr, SUNWpcu, SUNWppm, SUNWpsf, SUNWpsr, SUNWpsu, SUNWmp, SUNWxcu4, SUNWdoc, SUNWipc, SUNWipcx, SUNWlibCx, SUNWmfrun, SUNWxilow, SUNWj2rt, SUNWocf, SUNWxwplt, SUNWxwcft, SUNWxwopt, SUNWjvrt, SUNWaudio, SUNWolrte, SUNWdtbas, SUNWjvjit, SUNWtdte, SUNWtdmn, SUNWoldst, SUNWcar, SUNWkvm, SUNWdrr, SUNWdrrx, SUNWxi18n, SUNWjexpl, SUNWpiclr, SUNWpiclu, SUNWpiclx</p>	<ul style="list-style-type: none"> ● For PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850 (Model equipped with SPARC64™ GP), Solaris 8 7/01 PRIMEPOWER650/850 Compliance, Solaris 8 2/02 PRIMEPOWER (650/850 available) or Solaris 8 2/02 Rev.4 can be used. ● For PRIMEPOWER650(Model equipped with SPARC64™ V)/ 850(Model equipped with SPARC64™ V), Solaris 8 2/02 Rev.4 can be used. ● For PRIMEPOWER250/450/900/1500/2500, Solaris 8 2/02 Rev.4 can be used. ● If you select the software group that contains "Developer Solaris Software Group" when you install Solaris, you can install Solaris and the required packages at the same time.
2	<p>Solaris 9</p> <p>To use this software on PRIMEPOWER system, the following packages are required.</p> <p>SUNWbtool, SUNWcslx, SUNWdltk, SUNWxwice, SUNWdcor, SUNWctpls, SUNWesu, SUNWxfnt, SUNWxirl, SUNWtoo, SUNWxildh, SUNWxwrtl, SUNWscpr, SUNWscpu, SUNWlibC, SUNWxcu4, SUNWdoc, SUNWipc, SUNWlibCx, SUNWmfrun, SUNWxilow, SUNWcpp, SUNWzlib, SUNWxwplt, SUNWxwcft, SUNWxwopt, SUNWolrte, SUNWdtbas, SUNWj3rt, SUNWj3irt, SUNWdrr.us, SUNWdrrx.us, SUNWcar, SUNWkvm, SUNWxi18n, SUNWlccom, SUNWeurf, SUNWxwacx, SUNWi2rf, SUNWi4rf, SUNWi5rf, SUNWi7rf, SUNWi8rf, SUNWi9rf, SUNWi15rf, SUNWarrf, SUNWkxmft, SUNWcxmft, SUNW5xmft, SUNWtxfnt, SUNWeuodf,</p>	<ul style="list-style-type: none"> ● For PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850 (Model equipped with SPARC64™ GP), Solaris 9 12/02 or later. ● For PRIMEPOWER250/450/650(Model equipped with SPARC64™ V)/850(Model equipped with SPARC64™ V)/ 900/1500, Solaris 9 4/03 or later. ● For PRIMEPOWER2500, Solaris 9 12/03 or later. ● If you select the software group that contains "Developer Solaris Group" when you install Solaris, you can install Solaris and the required packages at the same time.

	<p>SUNWjxmft, SUNWjxcft, SUNWjxplt SUNWlxml, SUNWlxmlx, SUNWzlibx, SUNWgss, SUNWfns, SUNWgssc, SUNWgssx, SUNWfnsx, SUNWxwplx, SUNWxwicx, SUNWcpc, SUNWcpcu, FJSVcpc</p>	
3	<p>Solaris 10</p> <p>To use this software on PRIMEPOWER and GP7000F systems, the following packages are required.</p> <p>SUNWbtool, SUNWtlk, SUNWxwice, SUNWdcor, SUNWetpls, SUNWesu, SUNWxfnt, SUNWxilrl, SUNWtoo, SUNWxildh, SUNWxwrtl, SUNWscpr, SUNWscpu, SUNWlibC, SUNWxcu4, SUNWdoc, SUNWipc, SUNWmfrun, SUNWxilow, SUNWcpp, SUNWzlib, SUNWxwplt, SUNWxwcft, SUNWxwopt, SUNWolrte, SUNWdtbas, SUNWj3rt, SUNWj3irt, SUNWdr.us, SUNWcar, SUNWkvm, SUNWxi18n, SUNWlcom, SUNWeurf, SUNWxwacx, SUNWi2rf, SUNWi4rf, SUNWi5rf, SUNWi7rf, SUNWi8rf, SUNWi9rf, SUNWi15rf, SUNWarrf, SUNWkxmft, SUNWcxmft, SUNW5xmft, SUNWtxfnt, SUNWeuodf, SUNWjxmft, SUNWjxcft, SUNWjxplt, SUNWlxml, SUNWgss, SUNWgssc, SUNWcpc, SUNWcpcu, SUNWxwpl</p>	<ul style="list-style-type: none"> ● If you select the software group that contains "Developer Solaris Group" when you install Solaris, you can install Solaris and the required packages at the same time.

2) Software requirements

The software products listed in the following table are required to use Web-Based Admin View

No.	Name of software product	Package name	Version	Remarks
1	Java (TM)2 Runtime Environment, Standard Edition	j2re-1_3_1_17-windo ws-i586-i.exe	1.3.1	Needed to use Web-Based Admin View in Microsoft(R) Windows. This is stored on Enhanced Support Facility CD-ROM.
		j2re-1_4_2_11-windo ws-i586-p.exe	1.4.2	
2	Java(TM) Plug-in		10.1.2.2,REV=1999.12. 06.10.02 over	Needed to use Web-Based Admin View in Solaris OS.
			20.1.2.2,REV=1999.10. 14.18.04 over	
3	Java(TM)2 Runtime Environment, Standard Edition	j2re-1_3_1_17-solari s-sparc.sh	1.3.1	Needed to use Web-Based Admin View in Solaris OS. This is stored on Enhanced Support Facility CD-ROM.
		j2re-1_4_2_11-solari s-sparc.sh	1.4.2	

The operating systems that support Web-Based Admin View are as follows:
Solaris8, Solaris9, Solaris10

The Web browsers and Java Plug-ins that support Web-Based Admin View are listed in the table below:

No.	Name of software product	PC client	Solaris (TM) Workstation
1	Web browser	Netscape Communicator 4.5 to 4.7, Netscape 7.X Microsoft Internet Explorer 5.X or later	Netscape Communicator 4.5 to 4.7, Netscape 7.X Mozilla (TM) 1.7 (when Solaris10 OS is used)
2	Java Plug-in	Java2 Runtime Environment Standard Edition V1.3.1 Java2 Runtime Environment Standard Edition V1.4.2	One of the following versions is required: Java Plug-in 10.1.2.2,REV =1999.12.06.10.02 or higher Java Plug-in 20.1.2.2,REV =1999.10.14.18.04 or higher Java2 Runtime Environment Standard Edition V1.3.1 Java2 Runtime Environment Standard Edition V1.4.2

3) Excluded software

When this software is used, do not install the following software product.

No.	Name of software product	Package name	Version	Remarks
1	System Console Software	All packages	1.0 and later	

4) Patch requirements

None

3.2 Hardware Environment

The following hardware environment is required when using this software.

1) Main memory

Main memory of 64Mbytes or more

For PRIMEPOWER900/1500/2500, main memory must be 512Mbytes or more.

2) Hardware requirements

None

3.3 Static Disk Requirements

The disk space requirements for this software are shown below.

3.3.1 Disk requirements

The following tables list the disk space requirements for installing this software. If disk space is insufficient, expand the size of the appropriate file systems.

No.	Directory	Disk space requirement (in Mbytes)		
		Solaris 8	Solaris 9	Solaris 10
1	root	3.0	3.0	3.0
2	/usr	1.5	1.5	1.5
3	/var	22.5	40.5	63.5
4	/export/home	0	0	0
5	/opt *	193.0	270.0	250.0

*) Do not attempt to install this software in a directory other than "/opt."

3.3.2 Work area requirements

When you install this software with the following installation procedures, additional disk workspace as shown below might be required.

No.	Via spool directory	Directory	Disk space requirement (in Mbytes)	Remarks
1	No	/tmp	0.5	

3.4 Dynamic Disk Resources

The dynamic disk space requirements for this software are shown below.

3.4.1 Disk space requirements

When you use this software for the following operations, additional disk space might be required in the directories listed in Section 3.3, "Static Disk Requirements." If disk space is insufficient, expand the size of the appropriate file systems as shown.

PW-P: PRIMEPOWER250/450

PW-CLZ: PRIMEPOWER900/1500(Model equipped with SPARC64™ V)/2500

PW-CL: PRIMEPOWER1500 (Model equipped with SPARC64™ GP)

PW-CMZ: PRIMEPOWER650 (Model equipped with SPARC64™ V)/850 (Model equipped with SPARC64™ V)

PW-CM: PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850(Model equipped with SPARC64™ GP)

LE: SPARC Enterprise T1000/T2000/T5120/T5220

CW: SPARC Enterprise M4000/M5000/M8000/M9000

No.	Component	Directory	Additional disk space requirement (in M bytes)		Operation
1	DR Command/ NGDR Command	/var/opt/FJSVdr/	1.0		
		/opt	0.15		
		/etc/opt	0.07		
2	FJVTS	/var	0.1		Message log
3	Machine Administration	/var	CW, LE	4.3	Operation log, temporary file
			PW-P	203.8	
			PW-CM, PW-CMZ	237.1	
			PW-CL, PW-CLZ	83.6	
4	Server Default Configuration	/var	1.0		Normal operation (Only for PRIMEPOWER)
5	System Parameter Diagnosis	/var	2.0		Log, backup
6	Tape Driver Configuration Tool	/var	0.3		Log information

3.5 Memory Requirements

The following table shows the memory required when you use this software for the following operations

No.	Component	Memory required (unit: MB)	Operation
1	FJVTS	16.1	Executing the TP option with the default value, in the following situation: ● 2CPU, 1Disk (4GB), 128MB memory
		46.0	Executing the TP option with the default value, in the following situation: ● 1CPU, 2Disk (4GBx2), 128MB memory
2	Tape Driver Configuration Tool	1.1	During command execution

3.6 Swap Space

The following shows the swap space requirement of this software in normal operation. The swap space requirement depends on the system situation. The total swap space can be calculated as the sum of each individual swap space requirement. If the swap space provided by the system is insufficient, it must be expanded.

No.	Component	Swap capacity (unit: Mbytes)	Description
1	DR Command/ NGDR Command	0.1	Executing Dynamic Reconfiguration.
2	SCF Driver	0.1	Normal operation (daemon, commands)
3	FJVTS	35.4	Executing the TP option with the default value, in the following situation: ● 2CPU, 1Disk (4GB), 128MB memory
		54.0	Executing the TP option with the default value, in the following situation: ● 1CPU, 2Disk (4GBx2), 128MB memory
4	Web-Based Admin View / WWW Server for Admin View	0.4	Starting the web daemon, and then accessing the management server from the client.
		19.2	Starting Java VM on the management server.
		20.6	Starting Java VM on the management server, then starting the environment setting menu on the management server from the client.
		20.4	Starting Java VM on the management server, then starting the Logging View menu on the management server from the client.
5	Machine Administration	46.7	Standard use (daemon, GUI menu)
6	Remote Support	4.2	Standard use (daemon)
7	Server Default Configuration	0.5	Normal operation
		0.7	Using the memory error inspection function.
8	Tape Driver Configuration Tool	1.1	During command execution

Chapter 4 Restrictions and Notes

4.1 Restrictions

None

4.2 Cautions when Upgrading

The cautions when upgrading from the previous level to this software level are described below.

4.2.1 User data compatibility

There are no user data incompatibilities between this version and the previous version of this software.

4.2.2 Environment definition file compatibility

There are no environment definition file incompatibilities between this version and the previous version of this software.

4.3 Notes

The following notes apply to the installation of this software.

Refer also to Appendix D, "Notes."

No.	Component	Description
1	Enhanced Support Facility Information Management	You cannot install this software onto the System Management Console of PRIMEPOWER900/1500/2500.
		Install this product in the global zone. This product cannot be installed in the non-global zone. If esfadd is executed in the non-global zone, it terminates with the following message: esfadd: Error: This product cannot be installed in the non-global zone. If esfadd -c is executed in the non-global zone, it terminates with the following message: grep: /var/sadm/system/admin/INST_RELEASE cannot be opened. esfadd: Error: The operating system does not support this product.
		Please install this product before installing the Logical Domains Manager. The Logical Domains Manager contains the Solaris Security Toolkit. If you install the Logical Domains Manager, the Solaris Security Toolkit changes the cron settings. As a result, the system terminates with the following message when you execute "esfadd". esfadd: ERROR: use permission of cron was not set up.(root,adm) was not set up.
2	SCF/SCSI Fault LED support option	The SCF/SCSI Fault LED support option is a dedicated function for SPARC Enterprise Server. This component cannot be installed on any unit other than the above.
3	SunVTS, FJVTS	If the SUNWvts package is installed, "/opt/SUNWvts/README" is stored on the disk. Although it contains an explanation of the SUNWodu package, this package is not supported on PRIMEPOWER.
		If you use Solaris 10 on PRIMEPOWER, important notes are applicable. Refer to Appendix D.3, "Notes on FJVTS."

No.	Component	Description
4	Web-Based Admin View/ WWW Server for Admin View	<p>The user group "wvroot" is automatically registered after installing the product. Register user name to this "wvroot" group when using the functions Environment Setting and Logging view menus by logging in with a user name which is not "root".</p> <p>This component uses the port numbers shown below.</p> <p style="padding-left: 40px;">Make sure that the port numbers do not conflict with those used by other applications.</p> <p style="padding-left: 40px;">8081, 9397, 9398, 9399: For TCP/IP protocol</p> <p style="padding-left: 40px;">9396: For UDP protocol</p> <p>The port numbers used by this component are added to the /etc/inet/services file after this product is installed.</p> <p>If you change port numbers, refer to the "Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER)."</p> <p>If you install the Enhanced Support Facility on the boot environment mounted by Solaris Live Upgrade or Custom JumpStart, the following message may appear and the registration of a "wvroot" user group may fail.</p> <p style="padding-left: 40px;">## Executing postinstall script.</p> <p style="padding-left: 40px;">Bus Error - core dumped</p> <p>Even if this message appears, there is no problem with the installation of the Enhanced Support Facility.</p> <p>However, if you operate GUI screen of Web-Based Admin View as a non-root user, please execute the following command on a server on which you installed the Enhanced Support Facility to add the wvroot group.</p> <p style="padding-left: 40px;"># groupadd wvroot</p>
5	Tape Driver Configuration Tool	<p>When one of the following tape drives is connected during installation, this product automatically adds the tape driver definition to /kernel/drv/st.conf if that, applicable definition has not been included before:</p> <p style="padding-left: 40px;">DDS4 : PW023DT3, PW023DT4, PW0G3DT1</p> <p style="padding-left: 40px;">DAT72: PW023DT5, PW023DT6, PW0R3DT3, PW0G3DT2</p>
6	Patch Information Collect Command	<p>If this command is to be executed by a user other than the superuser, apply the following patch in advance. Otherwise, the user cannot execute the command. Note that this patch is already included in PTE R03021 or later.</p> <p style="padding-left: 40px;">Solaris 8 OS 108987-12 version or later: SunOS 5.8: Patch for patchadd and patchrm</p> <p style="padding-left: 40px;">Solaris 9 OS 112951-01 version or later: SunOS 5.9: patchadd and patchrm Patch</p> <p>If the above patch is not applied, executing this command will cause the system to shut down after displaying the following message:</p> <p style="padding-left: 40px;">ERROR: fjcollect: Command execution failed: /usr/sbin/patchadd</p>
7	SCF driver	<p>The following messages may appear at reboot after the installation of Enhanced Support Facility into PRIMEPOWER in the environment of Solaris 10 OS.</p> <p>If this message is displayed, apply patch 124599-01 or later and reboot the system.</p> <p style="padding-left: 40px;">scfctlbrk: ioctl() failed : No such device or address</p> <p style="padding-left: 40px;">/dev/FJSVhwr/pwrctl2: No such device or address</p> <p style="padding-left: 40px;">scfwatchdog: No such device or address</p> <p style="padding-left: 40px;">/dev/FJSVhwr/pwrctl: No such device or address</p> <p style="padding-left: 40px;">scftimezone: ioctl() failed</p> <p style="padding-left: 40px;">Sep 18 17:52:42 hostname FJSVapcs: Access SCF error (ioctl:6).</p>

Chapter 5 Installation

This software can be installed in one of two modes: basic installation and extended installation.

Installation

Installation in this mode requires no option commands.

This chapter explains the following procedures:

New installation (5.2, "Installation")

Update installation (5.3, "Update Installation")

Deletion (5.4, "Removing the software")

Installation in Logical Domains environment (5.5 "About Logical Domains")

Logical Domains is a virtualization technology provided by Sun and is the function enabling you to run two or more different operating systems on one computer by installing Logical Domains Manager.

Logical Domains Manager can be installed on SPARC EnterpriseT5120/T5220.

For more information on the Logical Domains Manager, control domain, guest domain, please refer to documents issued by Sun Microsystems, Inc.

Extended installation

Installation in this mode requires option commands.

Chapter 6 explains the following procedures:

No.	Installation method	Description	Remarks
1	OS Upgrade Installation	Save the Enhanced Support Facility environment before OS upgrade installation, install Enhanced Support Facility after OS upgrade installation, and then restore the Enhanced Support Facility environment.	See Section 6.1, "OS Upgrade Installation."
2	Custom JumpStart	After Solaris OS installation, install Enhanced Support Facility using a finish script.	See Section 6.2, "Custom JumpStart."
3	Flash Archive Installation	Create a flash archive to which "Solaris OS + (PTF) + Enhanced Support Facility" is applied, and install this software in each set of platform and Solaris OS.	See Section 6.3, "Flash Archive Installation."
4	Component Group Specified Installation	By specifying component groups during installation, packages to be installed can be restricted according to system requirements.	See Section 6.4, "Specifying a Component Group for Installation."
5	Solaris Live Upgrade	Save the Enhanced Support Facility environment before Solaris Live Upgrade, install Enhanced Support Facility after Solaris Live Upgrade, and then restore the Enhanced Support Facility environment.	See Section 6.5, "Solaris Live Upgrade."
6	Partition Installer	Use the partition installer to automatically install the Solaris OS and Enhanced Support Facility.	See Section 6.6, "Installation in a Partition."
7	Unified Installer	Use the unified installer of Systemwalker Resource Coordinator to automatically install the Solaris OS and Enhanced Support Facility.	See Section 6.7, "Unified Installer."

5.1 Models to be Installed

For PRIMEPOWER900/1500/2500

To install the Enhanced Support Facility on PRIMEPOWER800/900/1000/1500/2000/2500 and GP7000F Models 1000/2000, use the CD-ROM drive connected to the System Management Console.

If you operate the OS console on the System Management Console, use the RC2000. For more detailed information about System Management Console and RC2000, refer to "System Console Software User's Guide."

For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850

Use the CD-ROM drive equipped in the main unit to install the Enhanced Support Facility.

SPARC EnterpriseT1000 has no DVD-ROM drive.

You need to install Enhanced Support Facility using the CD-ROM(DVD-ROM) drive of the installation server.

- For initial installation, see Section 5.2, "Installation."
- If an old version of Enhanced Support Facility is already installed, see Section 5.3, "Update Installation."
- The Logical Domains Manager can be installed on SPARC EnterpriseT5120/T5220.

To install Enhanced Support Facility in the guest domain, you need to network mount the CD-ROM(DVD-ROM) drive of the installation server.

To use the CD-ROM drive of the installation server, please refer to "Appendix D .1 Mounting the CD-ROM".

5.2 Installation

5.2.1 Notes on installation

User authority	<p>To install this software, cron must be set up for execution with root and adm user authority. At installation, "/etc/cron.d/cron.allow" must be set so that users with root or admin authority can use cron. By default, these users are permitted to use cron and, therefore, the setting need not be changed unless the corresponding permissions were changed.</p> <p>Also, for the login shell of root users and adm users written in the "etc/passwd" file, set a shell program that can be used as a command interpreter (for example, /sbin/sh). If you set a shell program that cannot be used as a command interpreter (for example, /bin/false), Enhanced Support Facility installation will fail.</p>
About Logical Domains Manager	<p>Solaris Security Toolkit is contained in the Logical Domains Manager. By installing the Solaris Security Toolkit, a "securer" security setting is done. The cron setting described in the above "User authority" will be removed by the security setting and installing Enhanced Support Facility will fail.</p> <p>For more information on the Logical Domains Manager and Solaris Security Toolkit, please refer to documents issued by Sun Microsystems, Inc.</p> <p>Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.</p>
Single user mode	Before installing this software, start the system in, and then mount the required file system.
Mounting the file system	

5.2.2 Installation time

It takes about 15 minutes to install this software. Note that this installation time excludes any time for rebooting, as that depends on the system configuration.

5.2.3 Installing Enhanced Support Facility

1. Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive.
2. Type "su" at the shell prompt.

```
% su <Return>
```

3. Enter the root (superuser) password.

```
Password: password <Return>
#
```

4. Enter the OpenBoot environment.

```
# /usr/sbin/shutdown -y -g0 -i0 <Return>
```

5. Boot the system in single-user mode.

```
{?} ok boot -s <Return>
```

When the following message is displayed, enter the password.

```
INIT: SINGLE USER MODE
Type Ctrl-d to proceed with normal startup,
(or give root password for system maintenance): password <Return>
```

6. Mount the required file system.

```
# /usr/sbin/mountall -l <Return>
```

7. Activate the network.

Activate the network is different for the Solaris version being used.

Each work method is explained separately as follows for Solaris10 or Solaris8 or Solaris9.

Case A For Solaris10

```
# svcadm enable /network/initial <Return>
```

Case B For Solaris8 or Solaris9

b-1) Activate the network

```
# /etc/init.d/inetinit start <Return>
```

b-2) Start the RPC service.

```
# /etc/init.d/rpc start <Return>
```

b-3) Activate the network interface.

```
# /etc/init.d/inetsvc start <Return>
```

b-4) Start the nfs client.

```
# /etc/init.d/nfs.client start <Return>
```

8. Mount the CD-ROM.

The mounting procedure depends on the model.

For details of mounting the CD-ROM, see Appendix D.1, "Mounting the CD-ROM."

9. Install Enhanced Support Facility with the esfadd command.

```
# bin/esfadd <Return>
```

A confirmation message like the one shown below appears. Enter "yes" to continue installation.

Example

```
Enhanced Support Facility 3.0 will be installed.

Platform: FJSV,GPUZC-M
OS Release: Solaris 8
Do you want to continue with this installation? [yes or no ?]: yes
<Return>
```

- If the file system has not been mounted

If the file system has not been mounted, the alarm message shown below is displayed. Enter "no" to terminate the esfadd command.

Example

```
esfadd: ERROR: The directory (/opt) where the packages will be
installed does not exist.
The /opt mount by interrupting installation.

Select (n) no stop install.
Select (y) yes continue to install. [yes or no ?]:
```

Note: If the message shown above is output even though the file system is mounted, the package may have been only partly installed. Enter "yes" to continue installation.

- **When an old version of Enhanced Support Facility is installed**

When an old version of Enhanced Support Facility is installed, the message shown below appears. In this case, the environment settings file needs to be saved. Do this by following the procedure in Section 5.3, "Update Installation."

Example

```
Enhanced Support Facility will be updated to Enhanced Support Facility 3.0

Platform: FJSV,GPUZC-M
OS Release: Solaris 8

Do you want to continue with this update? [yes or no ?]:
```

10. In case of SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000, the following drivers are installed.

- FUJITSU PCI GigabitEthernet 3.0

- FUJITSU ULTRA LVD SCSI Host Bus Adapter Driver 2.0

After the installation of Enhanced Support Facility 3.0 is finished successfully, the following message appears and the installation of the drivers starts.

```
Installation of the bundled driver starts.
```

Note 1) Even if Enhanced Support Facility 3.0 is removed, the above drivers are not removed from the system.

11. Unmount the CD-ROM drive.

For Solaris 8

```
# cd / <Return>
```

For Solaris9 or Solaris10

```
# cd / <Return>
# /usr/sbin/umount /cdrom <Return>
```

or

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

12. Eject the Enhanced Support Facility 3.0 CD-ROM.

13. Insert the Manuals & Patches 3.0A30 CD-ROM into the CD-ROM drive to install patches.

If you can not see the content of the CD-ROM, please refer to "Appendix D.1 Mounting the CD-ROM" to mount it again.

14. Move to the directory of the esfpachadd directory to execute the esfpachadd command.

```
# cd /cdrom/ESFREMCSPP <Return>
# bin/esfpachadd <Return>
```

or

```
# cd /cdrom/cdrom0/ESFREMCSPP <Return>
# bin/esfpachadd <Return>
```

A confirmation message like the one shown below appears. Enter "yes" to continue installation.

Example

```
Enhanced Support Facility 3.0 correction patches will be applied.

Platform: FJSV,GPUZC-M (P)
OS Release: Solaris 10

Do you want to continue with this installation? [yes or no ?]: yes
```

15. Unmount the CD-ROM drive.

For Solaris 8

```
# cd / <Return>
```

For Solaris 9 or Solaris 10

```
# cd / <Return>
# /usr/sbin/umount /cdrom <Return>
```

or

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

16. Eject the Manuals & Patches 3.0A30 CD-ROM.

17. Reboot the system.

```
# /usr/sbin/shutdown -y -g0 -i6 <Return>
```

18. The superuser starts the volume manager.

```
# /etc/init.d/volmgt start <Return>
```

19. Check the version of the individual packages included in the installed Enhanced Support Facility 3.0 using the `esfver` command.

```
# /opt/FJSVbse/bin/esfver -l <Return>
```

Example

```
esfver: INFO: Individual Packages Version of already installed Enhanced Support
Facility.
PKGNAME          VERSION          REVISION
-----
FJSVbse          3.0              2006.12.1200
FJSVdrcmd        1.8              2003.10.0200
                  :
                  :
FJSVparam        1.0              2003.10.2800
-----
ESF PATCH_VERSION = 3.0A30_20080115
```

Note

The individual package versions displayed by this command may be later than the version listed in the program components table. But the installation will be OK.

5.2.4 Messages appearing during installation

Note 1 Cancel installation if the following occurs:

When the following message is displayed during the installation, type "n" to exit the installation process.

```
A version of the <pkginst> package is already installed on this machine.  
Current administration does not allow new instances of an existing package  
to be created, nor existing instances to be overwritten.
```

```
No changes were made to the system.
```

```
There are n more packages to be installed.
```

```
Do you want to continue with installation [y,n,?]
```

Note 2 The message shown below may be displayed but the installation can be performed without any problems.

Note 2-1

The following message may be displayed when installing SUNWvts or SUNWvtsx packages on Solaris 8, but the installation will complete normally.

```
Note: The SyMON configd package is not installed. This package is  
required in order to support the SunVTS physical  
configuration mapping mode. SunVTS will function normally  
in its default logical configuration mapping mode.  
However, if physical configuration mapping is desired,  
please install the correct SyMON configd package  
for your platform:  
* For Desktop platform, install SUNWeswsa package.  
* For WorkGroup Server platform, install SUNWeswga  
package.  
* For Enterprise Server platform, install SUNWsyncfd  
package.  
:  
:  
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...  
| -1 ]
```

Note 2-2

The following message may be displayed when installing SUNWvts package on Solaris 9, but the installation will complete normally.

```
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...  
| -1 ]
```

Note 2-3

The following message may be displayed when installing SUNWvts package on Solaris 10, but the installation will complete normally.

Example

```
inetconv: Notice: Service manifest for 100235/1 already generated as  
/var/svc/manifest/network/rpc/100235_1-rpc_ticotsord.xml, skipped  
inetconv: Notice: Service manifest for 100083/1 already generated as  
/var/svc/manifest/network/rpc/100083_1-rpc_tcp.xml, skipped  
inetconv: Notice: Service manifest for 100068/2-5 already generated as  
/var/svc/manifest/network/rpc/100068_2-5-rpc_udp.xml, skipped  
Sending signal to inetd to read the modified conf file...  
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...  
| -1 ]
```

Note 2-4

The following message may be displayed when installing FJSVscr3 or FJSVpscr or FJSVdef or FJSVcmd packages, but the installation will complete normally.

```
cron may not be running - call your system administrator
```

Note 2-5

Web-Based Admin View does not support operation in the Dynamic Host Configuration Protocol (DHCP) environment.

If Web-Based Admin View is installed in the DHCP environment, the following message is displayed during installation:

```
## Executing postinstall script
cat cannot open <BE_NAME>/etc/nodename
```

<BE_NAME>: Nothing is displayed during normal installation.

During installation using Solaris Live Upgrade, the root directory in the new boot environment (example: /.art.copy1) is displayed.

Even if the message above is displayed, it does not affect the installation of Enhanced Support Facility.

Note 2-6

The following warning message may appear during the installation of Enhanced Support Facility into Solaris 10, but there is no problem with the installation of Enhanced Support Facility.

```
WARNING: setting mode of </etc/opt/FJSVwvbs> to default mode (755)
```

Note 3 Messages output during patch application**- When patches are supplied with the product**

After package installation is finished, the message shown below is output and patches are automatically applied.

For information on the patches that are applied, see README in the product CD-ROM. The applied patches vary depending on the system status.

```
/cdrom/cdrom0/ESFREMCSF/README
```

```
Enhanced Support Facility 3.0 collection patches will be applied.

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
:
:
:
---- esfpatchadd result. ----
Applied patches:
  912542-01
```

Note 3-1

If the following message is displayed, check the system environment. See Appendix C.3, "When the patches fail to be applied" for details.

```
---- esfpatchadd result. ----
Patches not applied:
  Patch
```

Note 3-2

There is no problem with patch application if the following messages are displayed with Solaris 10.

```
touch: /var/sadm/patch/.patchaddLock cannot create  
chmod: WARNING: can't access /var/sadm/patch/.patchaddLock  
/usr/lib/patch/patchadd[27]: /var/sadm/patch/.patchaddLock: cannot  
create
```

5.2.5 Environment setting after installation

The following table lists the environment settings required to use this software. For documentation information, refer to "2 Online Manuals."

No.	Component	Description
1	SCF Driver	<ul style="list-style-type: none"> If you use the RAS control device driver, you need to change the PATH environment variable. Refer to Section 1.3, "Server Setup" in "Enhanced Support Facility User's Guide" for the procedure.
2	SCF/SCSI Fault LED support option	To use the command provided by the SCF/SCSI Fault LED support option, the PATH environment variable must be changed. For details, see Section 3.3.1.2, "Setting for when the server is installed" in Section 3.3, "SCF/SCSI Fault LED Support Option [SPARC Enterprise Server]" of "Enhanced Support Facility User's Guide."
3	Machine Administration	<p>If the following message is displayed on the PRIMEPOWER900/1500/2500, change the System Management Console setting and start system communication with the System Management Console.</p> <pre>Feb 28 10:28:23 host_name evsndd: Can't get host name. Feb 28 10:28:23 host_name evsndd: Host or IP is not found.</pre> <p>To change the System Management Console setting and start communication:</p> <ol style="list-style-type: none"> Execute the <code>/usr/sbin/FJSVmadm/scslset</code> command, and change the System Management Console settings. <pre># /usr/sbin/FJSVmadm/scslset <host name of the System Management Console> <Return></pre> Start system communication with the System Management Console. <pre># /usr/sbin/FJSVmadm/cmdevsnd -i <Return></pre>
4	Web-Based Admin View/WWW Server for Admin View	<ul style="list-style-type: none"> For Web-Based Admin View client setup, refer to Section 3.1, "Preparations for Starting the Web-Based Admin View menu" in "Web-Based Admin View Operation Guide". If the browser works incorrectly, remove the "swingall.jar" file, which was copied with the browser on the client, using the description in Section 3.1.3.2, "Required for the Web Browser Environment" in the "Web-Based Admin View Operation Guide". The Web browser must be restarted, after installing this software. The working environment for Web-Based Admin View is set automatically (based on the network environment) when Enhanced Support Facility is installed. If the Solaris network environment is changed after installing Enhanced Support Facility, Web-Based Admin View may not work correctly. Refer to Chapter 6, "Changing the Settings" in "Web-Based Admin View Operation Guide" for how to change the working environment for Web-Based Admin View. When Enhanced Support Facility is pre-installed, all settings of Web-Based Admin View are configured as localhost (127.0.0.1). To use Web-Based Admin View, you must change these IP address settings used by Web-Based Admin View. Refer to Section 6.1, "Changing an IP Address on the Public LAN" and Section 6.3, "Changing the management server" in "Web-Based Admin View Operation Guide V20."

No.	Component	Description
4	Web-Based Admin View/ WWW Server for Admin View	<ul style="list-style-type: none"> ● Web-Based Admin View and WWW Server for Admin View automatically use the network ports when the system boots. The numbers 8081, 9396, 9397, 9398, and 9399 are preset set as the default network ports. If, for security purposes, you need to stop using these network ports, reboot the system after executing the following command. <ul style="list-style-type: none"> # /opt/FJSVwvbs/etc/bin/wvrascript uninstall <Return> This command makes Web-Based Admin View and WWW Server for Admin View default to non-automatic start. Note that in this case, the following functions and products can't be used from the Web browser. Use functions such as CUI as required. <ul style="list-style-type: none"> - Machine Administration - SynfinityDisk - SynfinityCluster - SynfinityFile/Global, SynfinityFile/Global POWER Edition - Multipath Disk Control - PRIMECLUSTER Once the Web-Based Admin View and WWW Server for Admin View functions have been reset to an automatic start, reboot the system after executing the following command. <ul style="list-style-type: none"> # /opt/FJSVwvbs/etc/bin/wvrascript install <Return> ● If the environment setting file of the FJSVwvbs package is restored using the wvEnvload command and the procedure described in Section 5.3.7.4, "Web-Based Admin View/WWW Server for Admin View" in Solaris 8, the environmental settings of Java in Web-Based Admin View will be changed to JDK 1.1 family (JDK 1.1.x). If you want to change these settings again, refer to Section 6.2.3, "Changing Java Environment" in "Web-Based Admin View Operation Guide".
5	Remote Support	<p>The remote support function's investigation data collection function</p> <p>For Solaris 8 or 9</p> <p>The function uses three system semaphore identifiers for program resource management. For this reason, Fujitsu recommends increasing the value of system parameter "Semmni"* by about 10. When changing the setting, reboot the system afterwards to activate the new setting.</p> <p>To edit the system parameter, add the following record to the /etc/system file (The following example increases the value of system parameter "Semmni" to 20.):</p> <pre style="text-align: center;">set semsys:seminfo_semmni = 20</pre> <p>* Semmni: Number of semaphore identifiers. The setting value can be checked with the sysdef(1M) command.</p> <p>For Solaris10</p> <p>The remote support function's investigation data collection function uses three system semaphore identifiers for program resource management. However, system parameters need not be changed.</p> <p>(By default 128 semaphore identifiers can be used.)</p> <p>If more semaphore identifiers are required, use the prctl(1) command to increase the value of project.max-sem-ids.</p> <p>For details, refer to the manual page of the prctl(1) command.</p> <p>In the following example, the value of project.max-sem-ids for project name user.root is 138.</p> <pre>prctl -n project.max-sem-ids -t privileged -r -v 138 -i project user.root</pre>

No.	Component	Description
6	System Data Output Tool	<p>fjsnap uses up memory and swap resources with the increase of the size of collected data because the command uses the /tmp directory as work area.</p> <p>Under the PRIMECLUSTER system, failover might happen when you use fjsnap while the system is operating. So be sure to change the collected data and the working area of fjsnap.</p> <p>1) Creation of the Forbidden file Create the Forbidden file (/etc/opt/FJSVsnap/exclude) and write the following two lines in order to reduce the size of collected data. VAR_OPT /var/adm/sa</p> <p>2) Change of the work area Specify a work area other than the /tmp directory with -T option when you execute fjsnap. Example#/opt/FJSVsnap/bin/fjsnap -T /var/tmp /var/tmp/fjsnap.out</p> <p>If the message "fjsnap:WARNING: Not enough space in <work_dir>" is output while fjsnap is running, stop the process and re-execute fjsnap by specifying a work area whose free space is larger than the size of collected data.</p> <p>For more information of this procedure, refer to Chapter 10, "System Data Output Tool" of the user's guide of "Enhanced Support Facility".</p>

5.2.6 Applying modifications

If the latest version of PTF (Program Temporary Fix), patches, etc. are available, please apply them. Refer to the manual supplied with the PTF or patches for information on how to do this.

5.3 Update Installation

5.3.1 Notes on installation

User authority	To install this software, cron must be set up to be used with root and adm user authority. At installation, "/etc/cron.d/cron.allow" must be set so that users with root or admin authority can use cron. By default, these users are permitted to use cron and, therefore, the setting need not be changed unless the corresponding permissions were changed. Also, for the login shell of root users and adm users written in the "etc/passwd" file, set a shell program that can be used as a command interpreter (for example, /sbin/sh). If you set a shell program that cannot be used as a command interpreter (for example, /bin/false), Enhanced Support Facility installation will fail.
Single user mode	Before installing this software, start the system in single user mode, and then mount the required file system.
Mounting the file system	
Saving the environment settings file	If an update installation is to be performed, the environment settings file may need to be saved in advance. See Section 5.3.3, "Checking the system environment," to check whether the environment settings file needs to be saved.

5.3.2 Installation time

It takes about 15 minutes to install this software. Note that this installation time excludes any time for rebooting, as that depends on the system configuration.

5.3.3 Checking the system environment

1. Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive.
2. Type "su" at the shell prompt.

```
% su <Return>
```

3. Enter the root (superuser) password.

```
Password: password <Return>  
#
```

4. Enter the OpenBoot environment.

```
# /usr/sbin/shutdown -y -g0 -i0 <Return>
```

5. Boot the system in single-user mode.

```
{?} ok boot -s <Return>
```

When the following message is displayed, enter the password.

```
INIT: SINGLE USER MODE  
Type Ctrl-d to proceed with normal startup,  
(or give root password for system maintenance): password <Return>
```

6. Mount the required file system.

```
# /usr/sbin/mountall -l <Return>
```

7. Activate the network.

Activate the network differs depending on the Solaris version being used.

Each work method is explained separately as follows for Solaris10 or Solaris8, Solaris9.

Case A For Solaris10

```
# svcadm enable /network/initial <Return>
```

Case B For Solaris8, Solaris9

b-1) Activate the network

```
# /etc/init.d/inetinit start <Return>
```

b-2) Start the RPC service.

```
# /etc/init.d/rpc start <Return>
```

b-3) Activate the network interface.

```
# /etc/init.d/inetsvc start <Return>
```

b-4) Start the nfs client.

```
# /etc/init.d/nfs.client start <Return>
```

8. Mount the CD-ROM.

For details of mounting the CD-ROM, see Appendix D.1, "Mounting the CD-ROM."

9. Check the package to be updated to see whether there is an environment settings file that needs to be saved.

```
RC2000 # bin/esfadd -c <Return>
```

When the following message is displayed, type "yes."

```
Check the package that will be updated.
```

```
Platform: FJSV,GPUZC-M
OS Release: Solaris 8
```

The packages being updated will be displayed.

Example

```
PKGNAME          CURRENT VERSION          FUTURE VERSION
-----
FJSVbse          2.2,REV=2002.02.1100     3.0,REV=2006.12.1200
                  :
                  :
FSUNlic          6.1.8,REV=2000.10.1100   6.2,REV=2002.03.2500
-----
Please save data according to the INSTALLATION GUIDE if the package(s) for which
the save of data is necessary exist in the above-mentioned package(s).
```

Refer to the table below to check whether there is an environment settings file that needs to be saved in advance for a package to be updated.

Component name	Package name	Environment setting file
DR, NGDR Command	FJSVdr FJSVdrcmd	/etc/opt/FJSVdr/reply/C/dr_op
SDF Driver	FJSVscr3 FJSVscu3 FJSVpscr	/etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scf.conf /etc/opt/FJSVhwr/adrc.conf
Web-Based Admin View/ WWW Server for Admin View	FJSVwvbs	Provides the wvEnvsave command to save/restore the environment setting file.
Machine Administration Remote Support	FJSVmasv FJSVcmnd FJSVrlib FJSVragt FJSVrmaos FJSVcmrm FJSVpmm FJSVpmnd	Provides the savelogs command to save/restore the environment setting file.
Auto Power Control System	FJSVapcs	/var/opt/FJSVapcs/*

If the environment settings file needs to be saved, see Section 5.3.4, "Saving the environment setting file," and save the environment settings file. If it need not be saved, proceed to Section 5.3.5, "Installing Enhanced Support Facility."

If the following message is displayed, initial installation is required. Proceed to Section 5.2.3, "Installing Enhanced Support Facility."

```
esfadd: INFO: This software is not installed on the system.
```

5.3.4 Saving the environment setting file

5.3.4.1 DR Command

Save the reply file for Dynamic reconfiguration if you use Dynamic Reconfiguration and modified the reply file. Refer to "Dynamic Reconfiguration User's Guide 3.6.2 Reply file" for detail.

```
# cp /etc/opt/FJSVdr/reply/C/dr_op save_file <Return>
```

5.3.4.2 SCF Driver

Save the SCF Driver environment setting files.

- For **PRIMEPOWER250/450/650/850/900/1500/2500**

```
# cd /  
# ls /etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scfconf  
/etc/opt/FJSVhwr/adrc.conf | cpio -o -O save_file <Return>
```

5.3.4.3 SCF/SCSI Fault LED support option

Save the SCF/SCSI Fault LED support option setting files.

- For **SPARC Enterprise M4000/M5000/M8000/M9000**

```
# cd / <Return>  
# ls /etc/opt/FJSVhwr/adrc.conf | cpio -o -O save_file <Return>
```

5.3.4.4 Web-Based Admin View/WWW Server for Admin View

If you are using the Web-Based Admin View /WWW Server for Admin View, save the environment setting file of FJSVwvbs package with the wvEnvsave command.

```
# /etc/opt/FJSVwvbs/etc/bin/wvEnvsave save_file <Return>
```

5.3.4.5 Machine Administration/Remote Support

If you are using Machine Administration or Remote Support, save the environment setting files of the packages constituting Machine Administration and Remote Support with the savelogs command.

```
# /usr/sbin/FJSVadm/savelogs -mo save_file_directory <Return>
```

5.3.4.6 Auto Power Control System

If you are using the Auto Power Control System, save the older version of the environment setting file for the FJSVapcs package.

```
# cd / <Return>  
# find /var/opt/FJSVapcs/ -print -depth | /usr/bin/cpio -o -O  
save_file <Return>
```

5.3.4.7 System Management Console

Save the System Management Console settings <ONLY with PRIMEPOWER900/1500/2500>.

```
# cp /etc/FJSVscslhostname save_file <Return>
```

5.3.5 Installing Enhanced Support Facility

1. Install Enhanced Support Facility with the esfadd command.

```
# bin/esfadd <Return>
```

The message shown below is displayed. Enter "yes" to continue installation.

```
Enhanced Support Facility will be updated to Enhanced Support Facility 3.0

Platform: FJSV,GPUZC-M
OS Release: Solaris 8

Do you want to continue with this update? [yes or no ?]: yes <Return>
```

- **If the file system has not been mounted**

If the file system has not been mounted, the alarm message shown below is displayed. Enter "no" to terminate the esfadd command.

```
esfadd: ERROR: The directory (/opt) where the packages will be installed does
not exist.

Do you want to continue with this installation? [yes or no ?]:
```

Note: If the message shown above is output even though the file system is mounted, the package may have been installed only partly. Enter "yes" to continue installation.

- **If an old version of Enhanced Support Facility is not installed**

If the following message is displayed, initial installation is required. Enter "yes" to continue installation.

```
Enhanced Support Facility 3.0 will be installed.

Platform: FJSV,GPUZC-M
OS Release: Solaris 8
Do you want to continue with this installation? [yes or no ?]: yes <Return>
```

2. In case of SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000, the following drivers are installed.

- FUJITSU PCI GigabitEthernet 3.0

- FUJITSU ULTRA LVD SCSI Host Bus Adapter Driver 2.0

After the installation of Enhanced Support Facility 3.0 is finished successfully, the following message appears and the installation of the drivers starts.

```
Installation of the bundled driver starts.
```

Note 1) Even if Enhanced Support Facility 3.0 is removed, the above drivers are not removed from the system.

3. Unmount the CD-ROM drive.

For Solaris 8

```
# cd / <Return>
```

For Solaris9 or Solaris10

```
# cd / <Return>
# /usr/sbin/umount /cdrom <Return>
```

or

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

4. Eject the Enhanced Support Facility 3.0 CD-ROM.
5. Insert the Manuals & Patches 3.0A30 CD-ROM into the CD-ROM drive to install patches.

If you can not see the content of the CD-ROM, please refer to "Appendix D.1 Mounting the CD-ROM" to mount it again.

6. Move to the directory of the esfpachadd directory to execute the esfpachadd command.

```
# cd /cdrom/ESFREMCSF <Return>
# bin/esfpachadd <Return>
```

or

```
# cd /cdrom/cdrom0/ESFREMCSF <Return>
# bin/esfpachadd <Return>
```

A confirmation message like the one shown below appears. Enter "yes" to continue installation.

Example

```
Enhanced Support Facility 3.0 correction patches will be applied.

Platform: FJSV,GPUZC-M (P)
OS Release: Solaris 10

Do you want to continue with this installation? [yes or no ?]: yes
```

7. Unmount the CD-ROM drive.

For Solaris 8

```
# cd / <Return>
```

For Solaris 9 or Solaris 10

```
# cd / <Return>
# /usr/sbin/umount /cdrom <Return>
```

or

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

8. Eject the Manuals & Patches 3.0A30 CD-ROM.
9. Reboot the system.

```
# /usr/sbin/shutdown -y -g0 -i6 <Return>
```

10. The superuser starts the volume manager.

```
# /etc/init.d/volmgt start <Return>
```

11. Check the version of the individual packages included in the installed Enhanced Support Facility 3.0 using the esfver command.

```
# /opt/FJSVbse/bin/esfver -l <Return>
```

Example

```
esfver: INFO: Individual Packages Version of already installed Enhanced Support
Facility.
PKGNAME          VERSION          REVISION
-----
FJSVbse          3.0              2006.12.1200
FJSVdrcmd        1.8              2003.10.0200
                  :
                  :
FJSVparam        1.0              2003.10.2800
-----
ESF_PATCH_VERSION = 3.0A30_20080115
```

Note

The individual package versions displayed by this command may be later than the version listed in the program components table. But the installation will be OK.

5.3.6 Messages appearing during installation

Note 1 Cancel installation if the following occurs:

When the following message is displayed during the installation, type "n" to exit the installation process.

```
A version of the <pkginst> package is already installed on this machine.
Current administration does not allow new instances of an existing package
to be created, nor existing instances to be overwritten.

No changes were made to the system.

There are n more packages to be installed.

Do you want to continue with installation [y,n,?]
```

Note 2 The message shown below may be displayed but the installation can be performed without any problems.

Note 2-1

The following message may be displayed when installing SUNWvts or SUNWvtsx packages on Solaris 8, but the installation will complete normally.

```
Note: The SyMON configd package is not installed. This package is
required in order to support the SunVTS physical
configuration mapping mode. SunVTS will function normally
in its default logical configuration mapping mode.
However, if physical configuration mapping is desired,
please install the correct SyMON configd package
for your platform:
    * For Desktop platform, install SUNWeswsa package.
    * For WorkGroup Server platform, install SUNWeswga
      package.
    * For Enterprise Server platform, install SUNWsyncfd
      package.
                                     :
                                     :
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...
| -1 ]
```

Note 2-2

The following message may be displayed when installing SUNWvts package on Solaris 9, but the installation will complete normally.

```
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...
| -1 ]
```

Note 2-3

The following message may be displayed when installing SUNWvts package on Solaris 10, but the installation will complete normally.

[Example]

```
inetconv: Notice: Service manifest for 100235/1 already generated as
/var/svc/manifest/network/rpc/100235_1-rpc_ticotsord.xml, skipped
inetconv: Notice: Service manifest for 100083/1 already generated as
/var/svc/manifest/network/rpc/100083_1-rpc_tcp.xml, skipped
inetconv: Notice: Service manifest for 100068/2-5 already generated as
/var/svc/manifest/network/rpc/100068_2-5-rpc_udp.xml, skipped
Sending signal to inetd to read the modified conf file...
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...
| -l ]
```

Note 2-4

The following message may be displayed when installing FJSVscr3 or FJSVpscr or FJSVdef or FJSVcmd packages, but the installation will complete normally.

```
cron may not be running - call your system administrator
```

Note 2-5

Web-Based Admin View does not support operation in the Dynamic Host Configuration Protocol (DHCP) environment.

If Web-Based Admin View is installed in the DHCP environment, the following message is displayed during installation:

```
## Executing postinstall script
cat cannot open <BE_NAME>/etc/nodename
```

<BE_NAME>: Nothing is displayed during normal installation.

During installation using Solaris Live Upgrade, the root directory in the new boot environment (example: /.art.copy1) is displayed.

Even if the message above is displayed, it does not affect the installation of Enhanced Support Facility.

Note 2-6

The following warning message may appear during the installation of Enhanced Support Facility into Solaris 10, but there is no problem with the installation of Enhanced Support Facility.

```
WARNING: setting mode of </etc/opt/FJSVwvbs> to default mode (755)
```

Note 3: Messages output during patch application

- When patches are available

After package installation is finished, the message shown below is output and patches are automatically applied.

For information on the patches that are applied, see README in the product CD-ROM. The applied patches vary depending on the system status.

/cdrom/cdrom0/ESFREMESP/README

```
Enhanced Support Facility 3.0 collection patches will be applied.

Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
:
:
:
---- esfpatchadd result. ----
Applied patches:
  912542-01
```

Note 3-1 If the following message is displayed, check the system environment. See Appendix C.3, "When the patches fail to be applied" for details.

```
---- esfpatchadd result. ----
Patches not applied:
  Patch
```

Note 3-2 There is no problem with patch application even though the following messages are displayed with Solaris10.

```
touch: /var/sadm/patch/.patchaddLock cannot create
chmod: WARNING: can't access /var/sadm/patch/.patchaddLock
/usr/lib/patch/patchadd[27]: /var/sadm/patch/.patchaddLock: cannot
create
```

5.3.7 Restoring the environment settings file

Where a previous version of the environment setting file has been saved using the instructions provided in Section 5.3.4, "Saving the environment setting file" it can be restored as follows:

5.3.7.1 DR Command

Modify the new reply file that is located at `/etc/opt/FJSVdr/reply/C/dr_op`. (Please use the saved version of previous reply file for reference). There may be new reply messages added as a result of the Enhanced Support Facility upgrade. See Section 6.1.3.3, "Inquiring Messages," or 7.1.3.3, "Inquiring Messages," in the "Dynamic Reconfiguration User's Guide" before modifying the reply file.

5.3.7.2 SCF Driver

Restore the SCF Driver environment setting files.

- For **PRIMEPOWER250/450/650/850/900/1500/2500**

```
# cd / <Return>
# cpio -iu -I save_file <Return>
# chownroot /etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scf.conf
/etc/opt/FJSVhwr/adrc.conf <Return>
# chgrp sys /etc/opt/FJSVhwr/pwrctl.property
/etc/opt/FJSVhwr/scf.conf <Return>
# chgrp root /etc/opt/FJSVhwr/adrc.conf <Return>
```

5.3.7.3 SCF/SCSI Fault LED support option

Restore the SCF/SCSI Fault LED support option setting files.

- For **SPARC Enterprise M4000/M5000/M8000/M9000**

```
# cd / <Return>
# cpio -iu -I save_file <Return>
# chown root /etc/opt/FJSVhwr/adrc.conf <Return>
# chgrp root /etc/opt/FJSVhwr/adrc.conf <Return>
```

5.3.7.4 Web-Based Admin View/WWW Server for Admin View

Restore the environment setting file of the Web-Based Admin View /WWW Server for Admin View with the `wvEnvload` command.

```
# /etc/opt/FJSVwvbs/etc/bin/wvEnvload save_file <Return>
```

5.3.7.5 Machine Administration/Remote Support

Restore the environment setting file of the Machine Administration and Remote Support with the `savelogs` command.

```
# /usr/sbin/FJSVadm/savelogs -r save_file_directory <Return>
```

5.3.7.6 Auto Power Control System

Restore the environment setting file of the Auto Power Control System.

```
# /usr/bin/cpio -iu -I save_file <Return>
```

5.3.7.7 System Management Console

Restore the System Management Console setting <ONLY with PRIMEPOWER900/1500/2500>

```
# cp save_file /etc/FJSVscslhostname <Return>
```

5.3.8 Environment setting after installation

The following table lists the environment settings required to use this software. For documentation information, refer to "2 Online Manuals."

No.	Component	Description
1	SCF Driver	<ul style="list-style-type: none"> If you use the RAS control device driver, you need to change the PATH environment variable. Refer to Section 1.3, "Server Setup" in "Enhanced Support Facility User's Guide" for procedure.
2	SCF/SCSI Fault LED support option	To use the command provided by the SCF/SCSI Fault LED support option, the PATH environment variable must be changed. For details, see Section 3.3.1.2, "Setting for when the server is installed" in Section 3.3, "SCF/SCSI Fault LED Support Option [SPARC Enterprise Server]" of "Enhanced Support Facility User's Guide."
3	Machine Administration	<p>If the following message is displayed on PRIMEPOWER900/1500/2500, change the System Management Console setting and start system communication with the System Management Console.</p> <pre>Feb 28 10:28:23 host_name evsndd: Can't get host name. Feb 28 10:28:23 host_name evsndd: Host or IP is not found.</pre> <p>To change the System Management Console setting and start communication:</p> <ol style="list-style-type: none"> Execute the <code>/usr/sbin/FJSVmadm/scslset</code> command, and change the System Management Console settings. <pre># /usr/sbin/FJSVmadm/scslset <host name of the System Management Console> <Return></pre> Start system communication with the System Management Console. <pre># /usr/sbin/FJSVmadm/cmdevsnd -i <Return></pre>

No.	Component	Description
4	Web-Based Admin View/ WWW Server for Admin View	<ul style="list-style-type: none"> ● For Web-Based Admin View client setup, refer to Section 3.1, "Preparations for Starting the Web-Based Admin View menu" in "Web-Based Admin View Operation Guide". ● If the browser works incorrectly, remove the "swingall.jar" file, which was copied with the browser on the client, using the description in Section 3.1.3.2, "Required for the Web Browser Environment" in the "Web-Based Admin View Operation Guide". ● The Web browser must be restarted, after installing this software. ● The working environment for Web-Based Admin View is set automatically (based on the network environment) when Enhanced Support Facility is installed. If the Solaris network environment is changed after installing Enhanced Support Facility, Web-Based Admin View may not work correctly. Refer to Chapter 6, "Changing the Settings" in "Web-Based Admin View Operation Guide" for how to change the working environment for Web-Based Admin View. ● When Enhanced Support Facility is pre-installed, all settings of Web-Based Admin View are configured as localhost (127.0.0.1). To use Web-Based Admin View, you must change these IP address settings used by Web-Based Admin View. Refer to Section 6.1, "Changing an IP Address on the Public LAN" and Section 6.3, "Changing the management server" in "Web-Based Admin View Operation Guide V20." ● Web-Based Admin View and WWW Server for Admin View automatically use the network ports when the system boots. The numbers 8081, 9396, 9397, 9398, and 9399 are preset set as the default network ports. If, for security purposes, you need to stop using these network ports, reboot the system after executing the following command. <ul style="list-style-type: none"> # /opt/FJSVwvbs/etc/bin/wvrscript uninstall <Return> <p>This command makes Web-Based Admin View and WWW Server for Admin View default to non-automatic start. Note that in this case, the following functions and products can't be used from the Web browser. Use functions such as CUI as required.</p> <ul style="list-style-type: none"> - Machine Administration - SynfinityDisk - SynfinityCluster - SynfinityFile/Global, SynfinityFile/Global POWER Edition - Multipath Disk Control - PRIMECLUSTER <p>Once the Web-Based Admin View and WWW Server for Admin View functions have been reset to an automatic start, reboot the system after executing the following command.</p> <ul style="list-style-type: none"> # /opt/FJSVwvbs/etc/bin/wvrscript install <Return> ● If the environment setting file of the FJSVwvbs package is restored using the wvEnload command and the procedure described in Section 5.3.7.4, "Web-Based Admin View/WWW Server for Admin View" in Solaris 8, the environmental settings of Java in Web-Based Admin View will be changed to JDK 1.1 family (JDK 1.1.x). If you want to change these settings again, refer to Section 6.2.3, "Changing Java Environment" in "Web-Based Admin View Operation Guide".

No.	Component	Description
5	Remote Support	<p>The remote support function's investigation data collection function</p> <p>For Solaris 8 or 9</p> <p>The function uses three system semaphore identifiers for program resource management. For this reason, Fujitsu recommends increasing the value of system parameter "Semmni"* by about 10. When changing the setting, reboot the system afterwards to activate the new setting.</p> <p>To edit the system parameter, add the following record to the /etc/system file (The following example increases the value of system parameter "Semmni" to 20.):</p> <pre style="text-align: center;">set semsys:seminfo_semmni = 20</pre> <p>* Semmni: Number of semaphore identifiers. The setting value can be checked with the sysdef(1M) command.</p> <p>For Solaris10</p> <p>The remote support function's investigation data collection function uses three system semaphore identifiers for program resource management. However, system parameters need not be changed.</p> <p>(By default 128 semaphore identifiers can be used.)</p> <p>If more semaphore identifiers are required, use the prctl(1) command to increase the value of project.max-sem-ids.</p> <p>For details, refer to the manual page of the prctl(1) command.</p> <p>In the following example, the value of project.max-sem-ids for project name user.root is 138.</p> <pre>prctl -n project.max-sem-ids -t privileged -r -v 138 -i project user.root</pre>
6	System Data Output Tool	<p>fjsnap uses up memory and swap resources with the increase of the size of collected data because the command uses the /tmp directory as work area.</p> <p>Under the PRIMECLUSTER system, failover might happen when you use fjsnap while the system is operating. So be sure to change the collected data and the working area of fjsnap.</p> <p>1) Creation of the Forbidden file</p> <p>Create the Forbidden file (/etc/opt/FJSVsnap/exclude) and write the following two lines in order to reduce the size of collected data.</p> <pre>VAR_OPT /var/adm/sa</pre> <p>2) Change of the work area</p> <p>Specify work area other than the /tmp directory with -T option when you execute fjsnap.</p> <pre>example# /opt/FJSVsnap/bin/fjsnap -T /var/tmp /var/tmp/fjsnap.out</pre> <p>If the message of "fjsnap:WARNING: Not enough space in <work_dir>" is output while fjsnap is running, stop the process and re-execute fjsnap by specifying work area whose free space is larger than the size of collected data.</p> <p>For more information on this procedure, refer to Chapter 10, "System Data Output Tool" of the user's guide of "Enhanced Support Facility".</p>

5.3.9 Applying modifications

If the latest version of PTF (Program Temporary Fix), patches, etc. are available, please apply them. Refer to the manual supplied with the PTF or patches for information on how to do this.

5.4 Removing Enhanced Support Facility

The following procedures describe how to remove all of the packages provided in this software.

For PRIMEPOWER900/1500/2500

To remove the Enhanced Support Facility, use the `esfrm` command on the CD-ROM.

As PRIMEPOWER900/1500/2500 are not supplied with a CD-ROM drive, use the CD-ROM drive connected to the System Management Console.

If you operate the OS console on the System Management Console, use the RC2000. For more detailed information about System Management Console and RC2000, refer to "System Console Software User's Guide."

For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850

Use the CD-ROM drive equipped in the main unit to delete the Enhanced Support Facility.

SPARC EnterpriseT1000 has no built-in DVD-ROM drive.

Use the CD-ROM (DVD-ROM) drive with the install server to delete the Enhanced Support Facility.

To use the CD-ROM drive of the installation server, please refer to "Appendix D .1 Mounting the CD-ROM".

5.4.1 Removing the software

User authority	This software uses cron via the root and adm users. Before removing this software, cron ensure that the root and adm users are not disabled. By default these users are allowed to use cron, so there is no need to check your system if no changes have been made. If any change has been made to the system, remove this software after you revert to the default settings. (For example, the adm user must not be set to /bin/false in the /etc/passwd file.)
Single user mode	Before installing this software, start the system in, and then mount the required file system.
Mounting the file system	

1. Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive.
2. Type "su" at the shell prompt.

```
% su <Return>
```

3. Enter the root(superuser) password.

```
Password: password <Return>
#
```

4. Enter the OpenBoot environment.

```
# /usr/sbin/shutdown -y -g0 -i0 <Return>
```

5. Boot the system in single-user mode.

```
{?} ok boot -s <Return>
```

When the following message is displayed, enter the password.

```
INIT: SINGLE USER MODE
Type Ctrl-d to proceed with normal startup,
(or give root password for system maintenance): password <Return>
```

6. Mount the required file system.

```
# /usr/sbin/mountall -l <Return>
```

7. Activate the network.

Activate the network is different for the Solaris version being used.

Each work method is explained separately as follows for Solaris10 or Solaris8 or Solaris9.

Case A For Solaris10

```
# svcadm enable /network/initial <Return>
```

Case B For Solaris8 or Solaris9

b-1) Activate the network

```
# /etc/init.d/inetinit start <Return>
```

b-2) Start the RPC service.

```
# /etc/init.d/rpc start <Return>
```

b-3) Activate the network interface.

```
# /etc/init.d/inetsvc start <Return>
```

b-4) Start the nfs client.

```
# /etc/init.d/nfs.client start <Return>
```

8. Mount the CD-ROM.

For details of mounting the CD-ROM, see Appendix D.1, "Mounting the CD-ROM."

9. Delete Patch 914562-02.

You need to delete Patch 914562-01 before executing 'esfrm'.

Please follow the steps below.

To know what to do if you executed 'esfrm' without deleting Patch 914562-01, please refer to "Appendix C.2.2".

```
# showrev -p | grep 914562-01 <Return>
Patch: 914562-01 Obsoletes: Requires: Incompatibles: Packages: FJSVdmp
# patchrm 914562-01 <Return>
```

10. Remove Enhanced Support Facility with the esfrm command.

```
# bin/esfrm <Return>
```

When the following message is displayed, type "all.", "no", or "part".

```
Enhanced Support Facility 3.0 will be removed.
FJSVbse      Enhanced Support Facility Information Management
              (sparc) 3.0,REV=2006.12.1200
              :
              :
FJSVparam    System Parameter Diagnosis
              (sparc) 1.0,REV=2003.11.1800

There is a possibility to cause problem(s) in the system when the
package(s) where '*' adheres to the head of the package name is deleted.

Please input 'all' when you want to remove all packages, input 'part'
when you want to remove only package(s) where '*' ds not adhere,
or input 'no' when you want to interrupt the uninstallation.

Please select. [no, all or part]:
```

Confirmation messages will be displayed when removing the packages. Type "y" to continue the removal.

Do not remove packages that are depended on by other packages. If you attempt to remove the package, the following message will be displayed. Type "n."

```
WARNING:
  The <pkg> package depends on the package currently
  being removed.
Dependency checking failed.
Do you want to continue with the removal of this package [y,n,?,q] n <Return>
```

If the following message is displayed, type "y" to continue the removal.

```
Do you want to continue with package removal [y,n,?,q] y <Return>
```

Note1

Please select "part" not to remove packages having an asterisk ("*").

A package with an asterisk ("*") at the head of its name has been installed with a product other than Enhanced Support Facility.

If you select "all", packages having an asterisk ("*") are removed and the behavior of products other than Enhanced Support Facility is affected by this.

```
Enhanced Support Facility 3.0 will be removed.
FJSVbse      Enhanced Support Facility Information Management
              (sparc) 3.0,REV=2006.12.1200
FJSVscdx     System Control Driver (SCF and Fault LED) (64-bit)
              (sparc.sun4us) 1.9.1,REV=2003.11.1100
*FJSVwvcnf   WWW Server for Admin View
              (sparc) 1.5,REV=2002.11.2700
              :
              :

FJSVdmp      Crash Dump Assistant
              (sparc) 1.5,REV=2002.11.2700
```

There is a possibility to cause problem(s) in the system when the package(s) where '*' adheres to the head of the package name is deleted.

Please input 'all' when you want to remove all packages, input 'part' when you want to remove only package(s) where '*' ds not adhere, or input 'no' when you want to interrupt the uninstallation.

Please select. [no, all or part]:

Note2

The following message may be displayed when removing FJSVrlib package, but the removal will be complete normally.

```
mkdir: Failed to make directory "/opt/FJSVrlib/etc/apply"; No such file or
directory
```

Note3

The following message may be displayed when removing FJSVmadm or FJSVmasv package, but the removal will be complete normally.

```
rm: /var/opt/FJSVmadm/xxx/xxxxxxxx is a directory
```

Note4

The following message may be displayed when removing SUNWvts package on Solaris 8, 9, but the removal will complete normally.

```
/var/sadm/pkg/SUNWvts/install/preremove: usage: kill [ [ -sig ] id ... | -l ]
SMM message filter module 'msgfltr' not found
```

Note5

The following messages may be displayed when removing SUNWvts package on Solaris 10, but the removal will complete normally.

[Example]

```
inetconv: Notice: Service manifest for 100235/1 already generated as
/var/svc/manifest/network/rpc/100235_1-rpc_ticotsord.xml, skipped
inetconv: Notice: Service manifest for 100083/1 already generated as
/var/svc/manifest/network/rpc/100083_1-rpc_tcp.xml, skipped
inetconv: Notice: Service manifest for 100068/2-5 already generated as
/var/svc/manifest/network/rpc/100068_2-5-rpc_udp.xml, skipped
Sending signal to inetd to read the restored conf file...
/var/sadm/pkg/SUNWvts/install/r.inetdconf: usage: kill [ [ -sig ] id ... | -l ]
```

Note6

The following message may be displayed when installing FJSVscr3, FJSVpscr, FJSVdef, or FJSVcmdnd packages, but the removal will complete normally.

```
cron may not be running - call your system administrator
```

Note7

The following message may be displayed when removing FJSVmadm package on Solaris 8, 9, but the removal will complete normally.

```
/var/sadm/pkg/FJSVmadm/install/preremove: /usr/bin/svcprop: not found
```

Note8

There is no problem in the deletion though the following messages might be displayed in the zone environment of Solaris 10 while deleting the package.

```
pkgrm: ERROR: unable to perform preremoval check of package <FJSVxxxx> in
zone <zonearea>
```

Note9

If the following messages are output during the removal of a FJSVdmp package and the removal of the FJSVdmp package ends with failure, the procedure for removing the software may be wrong.

Please read section 9 in "5.4.1 Removing the software".

Regarding resolution, please refer to "Appendix C.2.2".

```
svc:/system/fjsvdmpsnap:default remains enabled; aborting
pkgrm: ERROR: class action script did not complete successfully

Removal of <FJSVdmp> failed.

esfrm: ERROR: Failed to remove a FJSVdmp package.
```

11. Unmount the CD-ROM.

```
# cd / <Return>
# /usr/sbin/umount /cdrom <Return>
```

or

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

12. Reboot the system.

```
# /usr/sbin/shutdown -y -g0 -i6 <Return>
```

13. The superuser starts the volume manager.

```
# /etc/init.d/volmgt start <Return>
```

14. Eject CD-ROM of the Enhanced Support Facility 3.0.

5.5 About Logical Domains

Logical Domains Manager can be installed on SPARC EnterpriseT5120/T5220.

Logical Domains is a virtualization technology provided by Sun and enables you to run multiple different operating systems on one computer.

Please install this software before installing the Logical Domains Manager.

The Logical Domains Manager contains the Solaris Security Toolkit. If you install the Solaris Security Toolkit, "increased" security is set on your system. Because of this setting, the cron setting described in "User authority" in "5.2.1 Notes on installation" is modified and installing this software fails. If you fail to install this software, please refer to "C.1.4 Resolution of problems which occur when package is installed (IV)".

For more information on the Logical Domains Manager, control domain, guest domain, please refer to documents issued by Sun Microsystems, Inc.

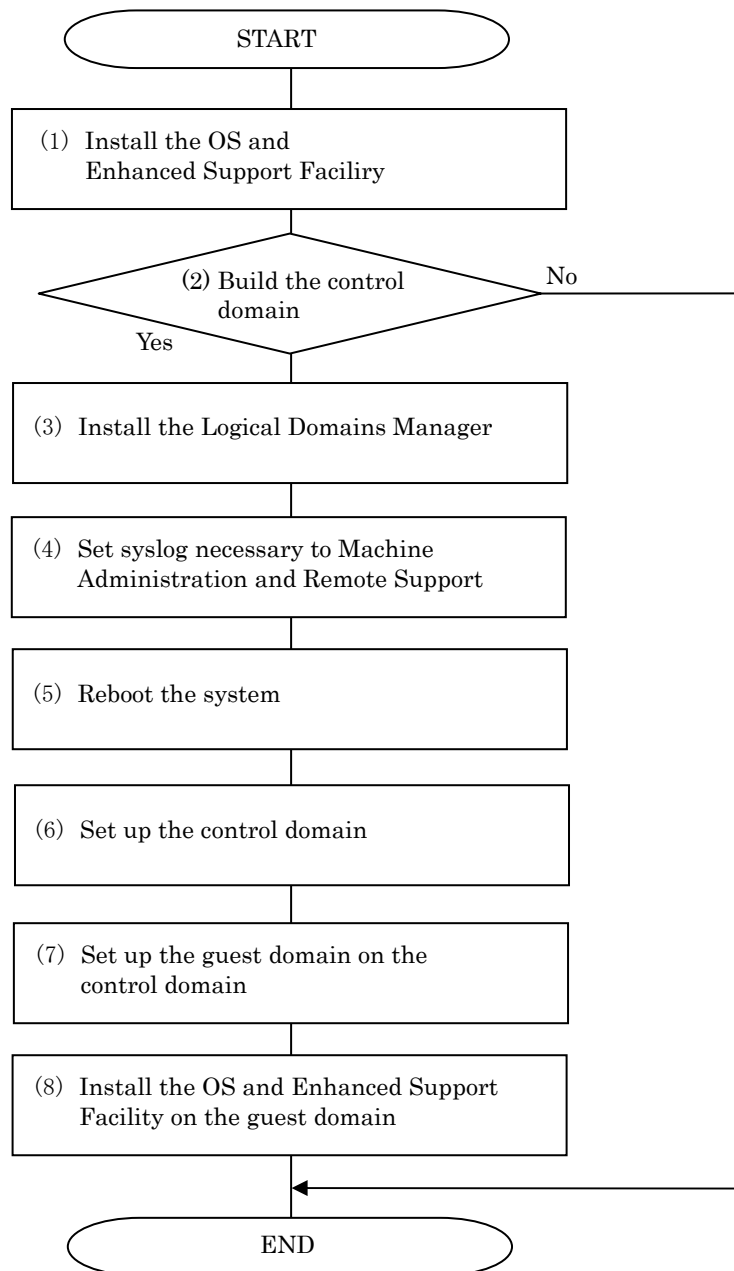
Regarding how to operate the Enhanced Support Facility with Logical Domains, please refer to "Chapter 4 Notes" in "Enhanced Support Facility User's Guide".

5.5.1 Flowchart of Building Logical Domains Environment

To install the Enhanced Support Facility in Logical Domains environment, two installation methods are available. One is to install it into the control domain, and another is to install it into the guest domain.

This chapter explains the installation steps.

- 1) The installation procedure to install the Enhanced Support Facility into the control domain is explained in “5.5.2 Building Procedure in the Control Domain”. Please see flowchart (1)-(7) below for the installation steps.
- 2) The installation procedure to install the Enhanced Support Facility into the guest domain is explained in “5.5.3 Building Procedure in the Guest Domain”. Please see flowchart (8) below for the installation steps.



5.5.2 Building procedure for the Enhanced Support Facility in the Control Domain

This section explains how to set up the Enhanced Support Facility in the control domain.

Please install the Enhanced Support Facility before installing the Logical Domains Manager.

**Solaris Security Toolkit is contained in the Logical Domains Manager.
Installing the Enhanced Support Facility may fail because Solaris Security Toolkit is installed by installing the Logical Domains Manager.**

1) Install the OS into the mainframe.

For more information, please refer to documents issued by Sun Microsystems, Inc.

2) Install the Enhanced Support Facility.

For more information, please refer to “5.2.3 Installing Enhanced Support Facility”.

3) Install the Logical Domains Manager.

In the following selection screen, select “a) Hardened Solaris configuration for LDomms (recommended)” as the security profile.

For more information, please refer to documents issued by Sun Microsystems, Inc.

Example)

```
You are about to install the domain manager package that will enable
you to create, destroy and control other domains on your system. Given
the capabilities of the domain manager, you can now change the security
configuration of this Solaris instance using the Solaris Security
Toolkit.
```

```
Select a security profile from this list:
```

- a) Hardened Solaris configuration for LDomms (recommended)
- b) Standard Solaris configuration
- c) Your custom-defined Solaris security configuration profile

```
Enter a, b, or c [a]: a <Return>
```

4) Set syslog information.

Set syslog information for the Enhanced Support Facility.

Solaris Security Toolkit may rewrite the contents of the syslog.conf set in the Enhanced Support Facility

Check whether the following entry exists in the /etc/syslog.conf file after installing the Logical Domains Manager, and if it does not exist, please add the following line to that file.

```
*.err;kern.debug;daemon.notice<tab>/var/opt/FJSVmadm/evh/evh_pipe
```

“<tab>” means creating space before and after by pressing the tab key.

5) Reboot the system.

6) Set up the control domain.

For more information, please refer to documents issued by Sun Microsystems, Inc.

Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.

7) Set up the guest domain by the control domain.

For more information, please refer to documents issued by Sun Microsystems, Inc.

Please refer to “5.5.3 Building Procedure in the Guest Domain” when you set up the guest domain and install the Enhanced Support Facility in it.

5.5.3 Building Procedure for the Enhanced Support Facility in the Guest Domain

This section explains how to set up the Enhanced Support Facility in the guest domain.

1) Install the OS into the guest domain.

For more information, please refer to documents issued by Sun Microsystems, Inc.

2) Install the Enhanced Support Facility into the guest domain.

When installing the Enhanced Support Facility, use the CD-ROM of the installation server.

Regarding the network mount, please refer to “Appendix D .1.3.2 Mounting a CD-ROM of an installation server”.

Chapter 6 Extended Installation

6.1 OS Upgrade Installation

This section explains system upgrading that is performed when installing a new version of Solaris OS on a Solaris server on which existing Enhanced Support Facility is already running.

Enhanced Support Facility automatically selects a package for each Solaris version. Therefore, before upgrading the OS, be sure to uninstall Enhanced Support Facility. Install Enhanced Support Facility again after OS upgrading.

6.1.1 Upgrade workflow

The upgrade workflow is shown in Figure 6.1.

For detailed procedures, refer to the respective sections indicated in individual frames.

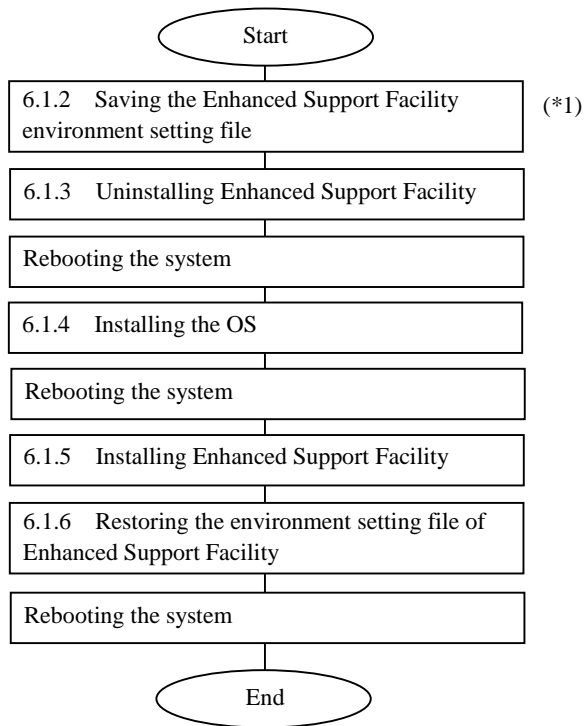


Figure 6.1 Workflow for upgrading

*1 Before upgrading the OS, be sure to save the Enhanced Support Facility environment setting file and uninstall Enhanced Support Facility.

6.1.2 Saving the Enhanced Support Facility environment setting file

Before starting OS upgrading, be sure to save the environment setting file.
The file to be saved varies depending on the installed package.
For details, refer to Section 5.3.4, "Saving the environment setting file."

6.1.3 Uninstalling Enhanced Support Facility

Before starting OS upgrading, uninstall Enhanced Support Facility.
For details, refer to 5.4.1, "Removing the software."

6.1.4 Installing the OS

When installing the Solaris OS, refer to the following:

For PRIMEPOWER

- Refer to the "Hardware Platform Guide."

For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000

- Refer to Sun manuals.

6.1.5 Installing Enhanced Support Facility

After OS installation is finished, install Enhanced Support Facility.
For details, refer to Section 5.2.3, "Installing Enhanced Support Facility."

6.1.6 Restoring the environment setting file of Enhanced Support Facility

After the installation of Enhanced Support Facility is finished, restore the file saved in Section 6.1.2, "Saving the Enhanced Support Facility environment setting file."
For details, refer to Section 5.3.7, "Restoring the environment settings file."

6.2 Custom JumpStart

Enhanced Support Facility 2.4.1 can be installed using Custom JumpStart with the procedures described in this appendix.

6.2.1 Support environment

- Operating Environment:
Solaris 9 Solaris 10
- Models:
 - PW-CMZ (FJSV, GPUZC-M): PRIMEPOWER650(Model equipped with SPARC64™ V)/850(Model equipped with SPARC64™ V)
 - PW-CLZ (FJSV, GPUZC-L): PRIMEPOWER900/1500(Model equipped with SPARC64™ V)/2500
 - PW-P: PRIMEPOWER250/450
 - CW, LE: SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000

6.2.2 Procedure

This section explains the procedure for network installation using the CD-ROM drive on the installation server.

6.2.2.1 Copying the CD-ROM images to directories on the installation server

- 1) Copy each CD-ROM image of Enhanced Support Facility 3.0 and Manual& Patches 3.0A30 to each directory having a common parent directory.
- 2) Share the common parent directory beforehand so that the target server can recognize the common parent directory. Each CD-ROM image of Enhanced Support Facility 3.0 and Manual& Patches 3.0A30 should be placed in some directories under the common parent directory.

Example : Execution of the share command

```
# share <Return>
- /export/home/ESF ro,anon=0 ""
```

6.2.2.2 Installation script for Enhanced Support Facility

Install Enhanced Support Facility using a finish script after installing the operating environment. This section explains what should be stated and executed in the finish script.

- 1) State a command for mounting the CD-ROM of Enhanced Support Facility.
Specify the following parameter for the mount command.
-F nfs < install_server_IP>:
 <common parent directory to which the CD-ROM image is copied><mount_point>
Specify /a/mnt for <mount_point> when using JumpStart.
- 2) State a command for installing Enhanced Support Facility 3.0.
Specify the following options for the esfadd command:
-R < installation directory >
 Specify /a for JumpStart.

-n
With the esfadd command, restrains inquiries.
Use only when using Custom JumpStart.

- 3) State the command for installing Manual& Patches 3.0A30.
Specify the following options for the esfpatchadd command:

-R < installation directory >
Specify /a for JumpStart.

-A
With the esfpatchadd command, restrains inquiries.
Use only when using Custom JumpStart.

Example : Finish script

/export/home/ESF : The parent directory common to directories having the copies of the CD-ROM images

esf30 : Name of directory to which the CD-ROM image of Enhanced Support Facility 3.0 is copied

esf30a30 : Name of directory to which the CD-ROM image of Manual& Patches 3.0A30 is copied

```
mount -F nfs <install_server_IP>:/export/home/ESF /a/mnt  
/a/mnt/esf30/bin/esfadd -R /a -n  
/a/mnt/esf30a30/ESFREMESP/bin/esfpatchadd -R /a -A
```

6.2.2.3 Flowchart of Building Logical Domains Environment

The following describes how to install the Enhanced Support Facility by using Custom JumpStart to create Logical Domains.

This chapter explains the installation steps.

- 1) The installation procedure to install the Enhanced Support Facility into the control domain is described in “6.2.2.4 Building Procedure for the Control Domain”.
- 2) The installation procedure to install the Enhanced Support Facility into the guest domain is described in “6.2.2.5 Building Procedure for the Guest Domain”.

6.2.2.4 Building Procedure for the Control Domain

Install the Enhanced Support Facility by using the Custom JumpStart and install the Logical Domains Manager.

- 1) Install the OS and Enhanced Support Facility by using the Custom JumpStart.
Please refer to “6.2 Custom JumpStart”.
- 2) Install the Logical Domains Manager.
For more information, please refer to documents issued by Sun Microsystems, Inc.
- 3) Set syslog information.
Set syslog information for the Enhanced Support Facility.
Check whether the following entry exists in the /etc/syslog.conf file after installing the Logical Domains Manager, and if it does not exist, please add the following line to that file.

<code>*.err;kern.debug;daemon.notice<tab>/var/opt/FJSVmadm/evh/evh_pipe</code>

<tab> means creating space before and after by pressing the tab key.
Set syslog information of the Enhanced Support Facility.
- 4) Reboot the system.
- 5) Set up the control domain.
For more information, please refer to documents issued by Sun Microsystems, Inc.
Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.
- 6) Set up the guest domain by the control domain.
For more information, please refer to documents issued by Sun Microsystems, Inc.

6.2.2.5 Building Procedure for the Guest Domain

- 1) Install the OS and Enhanced Support Facility into the guest domain you set up.
Please refer to “6.2 Custom JumpStart”.

6.2.3 Notes

For initial install only.

Please specify initial_install or flash_install for the JumpStart Install_type profile keyword.
If the installation of Enhanced Support Facility fails, you need to reinstall the operating system.

6.3 Flash Archive Installation

The following two procedures are available for installation using a flash archive:

- 1) Create a flash archive to which an OS and PTF (if applicable) have been applied, and then apply Enhanced Support Facility.
- 2) Create a flash archive to which an OS, PTF (if applicable), and Enhanced Support Facility have been applied, and then perform installation for each combination of the platform and OS.

This section explains the installation procedure in 2) and provides some notes.

The table below lists the flash archives created for individual platforms.

Model name	Platform
PRIMEPOWER250/450	FJSV, GPUZC-M(P)
PRIMEPOWER650 (SPARC64™ GP-installed model) /850 (SPARC64™GP-installed model)	FJSV, GPUSC-M
PRIMEPOWER650 (SPARC64™ V-installed model)/850 (SPARC64™ V-installed model)	FJSV, GPUZC-M
PRIMEPOWER900/1500 (SPARC64™ V-installed model)/2500	FJSV, GPUZC-L
SPARC Enterprise T1000/T2000/T5120/T5220	SUNW,SPARC-Enterprise-T1000 SUNW,SPARC-Enterprise-T2000 SUNW,SPARC-Enterprise-T5120 SUNW,SPARC-Enterprise-T5220
SPARC Enterprise M4000/M5000/M8000/M9000	SUNW, SPARC-Enterprise

Note: For installation using a flash archive, the installer cannot automatically recognize the platform. When executing flash archive installation, therefore, use a flash archive with the same platform and OS. This problem does not apply to the installation procedure in 1) above.

6.3.1 Procedure for creating a flash archive

The workflow for creating a flash archive is shown in Figure 6.2.
For detailed procedures, refer to the respective sections indicated in individual frames.

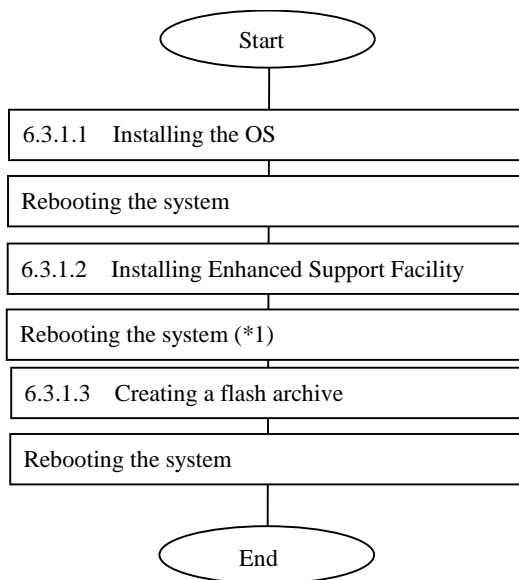


Figure 6.2 Workflow for creating a flash archive

*1 Reboot the system and then start in single user mode.

6.3.1.1 Installing the OS

When installing the Solaris OS, refer to the following:

For PRIMEPOWER

- Refer to the "Hardware Platform Guide."

For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000

- Refer to Sun manuals.

6.3.1.2 Installing Enhanced Support Facility

After OS installation is finished, install Enhanced Support Facility.

For details, refer to Section 5.2.3, "Installing Enhanced Support Facility."

6.3.1.3 Creating a flash archive

To create a flash archive, use the flarcreate command in the master system running in single user mode.

```
# /usr/sbin/flarcreate -n name options path/filename <Return>
```

name: a name to be specified for the flash archive.

options: flarcreate command line options

* Some of the available options are listed in the table below:

Option	Description
Required option	
-n archive_name	This option specifies a name to be assigned to the flash archive to be created.
Compression option	
-c	The flash archive is compressed using "compress."
Directory and size options	
-R root	An archive is created from the root file system tree. If this option is omitted, flarcreate creates an archive from the /file system.
-S	Size information is not included in the archive.
-H	No hash identifier is generated.
-t	An archive is created on a tape device. Argument "filename" is the name of a tape device.

path: The path of the directory in which the archive file is to be saved.

If no path is specified, flarcreate saves the archive file to the current directory.

filename: Name to be specified for the archive file.

- When archive creation is completed successfully, the flarcreate command returns end code 0.
- If archive creation is unsuccessful, the flarcreate command returns an end code other than 0.
- Attributes such as permission of the created archive file need not be changed.

6.3.1.4 Notes on creating a flash archive

When creating a flash archive, note the following:

You can ignore these notes when creating a flash archive according to the procedure in 1) in Section 6.3.

1. If an operating system is installed using a flash archive that has been created on a different type of machine, the operating system does not work.
2. Be sure to create a flash archive in single user mode.
3. Create a flash archive without setting the Enhanced Support Facility environment.

6.3.2 Installation procedure using a flash archive

This section explains the installation procedure using a flash archive.

6.3.2.1 Custom jump installation using a flash archive

Install a flash archive to the installation server and perform custom jump start installation using a flash archive.

- * The following explanation assumes that an archive is stored on the network file system (NFS) server.

 - * Flash archive creation and flash installation are performed for initial installation.
- First, create separately from the prof file used for custom jump start, a flash_prof file to be used to define that a flash archive be used.

Example of flash_prof file

```
[flash_prof]
install_type      flash_install
archive_location  nfs 10.18.91.55:/export/home/flash/pw450-sol10
partitioning      explicit
filesystems       c0t0d0s0 4000 /
filesystems       c0t0d0s1 8000 /var
filesystems       c0t0d0s3 1000 swap
filesystems       c0t0d0s4 8000 /opt
filesystems       c0t0d0s5 8000 /usr
filesystems       c0t0d0s6 free /export/home
```

- (1) Define the install type as flash_install.
 - (2) As shown above, set archive_location as in "archive_location nfs server_name:/path/archive-filename."
Define the flash_prof file in the rules file.
Define "flash_prof" in the rules file.
- * Execute "share" in advance so that the target can recognize the directory to which the archive is installed on the installation server.
 - * Define the IP address for server_name.

The subsequent procedure is the same as that for custom jump start.

6.3.2.2 Installing a flash archive in the clone system

Solaris 8, 9, or 10 can be installed in a clone system using a flash archive from the Solaris DVD or CD.
For details, refer to the "Solaris Installation Guide."

6.3.2.3 Flowchart of Building Logical Domains Environment

The following describes how to install the Enhanced Support Facility by using Flash Archive to create Logical Domains.

This chapter explains the installation steps.

- 1) The installation procedure to install the Enhanced Support Facility into the control domain is described in “6.3.2.4 Building Procedure for the Control Domain”.
- 2) The installation procedure to install the Enhanced Support Facility into the guest domain is described in “6.3.2.5 Building Procedure for the Guest Domain”.

6.3.2.4 Building Procedure for the Control Domain

Install the Enhanced Support Facility by using the flash archive and install the Logical Domains Manager.

- 1) Install the OS and Enhanced Support Facility by using the flash archive.
Please refer to “6.3 Flash Archive Installation”.
- 2) Install the Logical Domains Manager.
For more information, please refer to documents issued by Sun Microsystems, Inc.
- 3) Set syslog information.
Set syslog information for the Enhanced Support Facility.
Check whether the following entry exists in the /etc/syslog.conf file after installing the Logical Domains Manager, and if it does not exist, please add the following line to that file.

```
*.err;kern.debug;daemon.notice<tab>/var/opt/FJSMadm/evh/evh_pipe
```

<tab> means creating space before and after by pressing the tab key.

Set syslog information of the Enhanced Support Facility.

- 4) Reboot the system.
- 5) Set up the control domain.
For more information, please refer to documents issued by Sun Microsystems, Inc.
Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.
- 6) Set up the guest domain by the control domain.
For more information, please refer to documents issued by Sun Microsystems, Inc.

6.3.2.5 Building Procedure for the Guest Domain

- 1) Install the OS and Enhanced Support Facility into the guest domain you set up.
Please refer to “6.3 Flash Archive Installation”.

6.3.3 Setting the Enhanced Support Facility environment after flash archive installation

After flash archive installation is finished, the Enhanced Support Facility environment needs to be set as shown below:

No.	Component	Description
1	Machine Administration	<p>If the following message is displayed with the PRIMEPOWER900/1500/2500, the connection with the system console must be set.</p> <pre>Feb 28 10:28:23 host_name evsndd: Can't get host name. Feb 28 10:28:23 host_name evsndd: Host or IP is not found.</pre> <p>[System console connection procedure]</p> <ol style="list-style-type: none"> Execute the following command to set information on the connection to the system console: <pre># /usr/sbin/FJSVmadm/scslset system console host name<Return></pre> Execute the following command to start communication with the system console: <pre># /usr/sbin/FJSVmadm/cmdevsnd -i<Return></pre>
2	Web-Based Admin View/ WWW Server for Admin View	To change the Web-Based Admin View operating environment, refer to Chapter 6, "Changing Settings," in the "Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER)."
3	Tape Driver Definition Tool	<p>If the tape device is not recognized after installation, take the following setting steps:</p> <ol style="list-style-type: none"> <pre># /var/opt/FJSVdcnf/bin/fjcnfset st<Return></pre> <pre># /usr/sbin/shutdown -y -g0 -i6<Return></pre> <p>You do not have to do the above if you installed this software according to the procedure in 1) in Section 6.3.</p>

6.3.4 Notes on flash archiving

When applying flash-archived Enhanced Support Facility, note the following:

No.	Item	Description
1	Symptom	The log of the master system is not deleted but is taken over. Note this when checking the log.
	Applicable model	All models
	Applicable package	All packages
	Displayed message	None
	Cause	None
	Preventive measures	None
2	Symptom	Web-Based Admin View outputs the messages shown below when the system starts.
	Applicable model	PRIMEPOWER250/450/650/850/900/1500/2500
	Applicable package	FJSVwvbs, FJSVwvcnf
	Displayed message	wvcheckconf Error: [local:mip] invalid Hostname/IpAddress[192.0.0.1], should be valid HostName/IpAddress on this host. wvcheckconf Error: [local:httpip] invalid Hostname/IpAddress[192.0.0.1], should be valid HostName/IpAddress on this host. wvcheckconf: 'webview.cnf' has not been modified by some Errors. FJSVwvbs: 'webview.cnf' abnormal
	Cause	Although settings according to the machine environment are required, the environment of the master system is taken over if a flash archive is used.
	Preventive measures	Make settings according to the machine environment by referring to Chapter 6 in the "Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER)."
3	Symptom	If a flash archive is applied to a machine running a different type of System Management Console from the type of the machine on which the flash archive was created, communication between ESF and SCS is disabled. The communication between ESF and SCS must be set again.
	Applicable model	PRIMEPOWER900/1500/2500
	Applicable package	None
	Displayed message	None
	Cause	A process called evsndd implements communication. Although two evsndd processes, parent and child, are required, only one is available.
	Preventive measures	Refer to the description about machine administration in Section 5.2.6, "Environment setting after installation."
4	Symptom	A tape device may not be recognized automatically.
	Applicable model	All models
	Applicable package	FJSVdcnf
	Displayed message	None
	Cause	When a flash archive is used, the environment of the master system is taken over. If a unit supported by the tape definition tool is not connected to the master system or different types of units are connected to the master system and applied machine, the setting command needs to be reexecuted.
	Preventive measures	Execute the following command, and then reboot the system. "/var/opt/FJSVdcnf/bin/fjcnfset st"

No.	Item	Description
5	Symptom	Executing "pkgchk -n" displays ERROR.
	Applicable model	None
	Applicable package	FJSVpscr, FJSVscr3, FJSVdef, FJSVcmd
	Displayed message	ERROR: /var/spool/cron/crontabs/root group name <sys> expected <other> actual
	Cause	The above file is a clone setting file. After ESF application is finished, new clone settings are made in the /var/spool/cron/crontabs/root file. This changes the group name from <sys> to <other>. This is why ERROR is output.
	Preventive measures	None
6	Symptom	When the system starts for the first time after application, a model may be mistakenly recognized and displayed.
	Applicable model	All models
	Applicable package	Packages related to machine administration
	Displayed message	/etc/rc2.d/S30SMAWubft: disable FJSVmadm SES/SAF-TE monitoring ...done. /etc/rc2.d/S30SMAWubft: cleanup SES/SAF-TE processor device links...done. /etc/rc2.d/S30SMAWubft: updating HW_CONFIG data base...done. /etc/rc2.d/S30SMAWubft: start UPS BBU Fan Temperature Daemon...done. Configuring network interface addresses: fji0 hme0. PW450Q
	Cause	When the system starts for the first time after installation using a flash archive, WSA executes the model check command of the machine administration before machine administration operation begins, and mistakenly recognizes the model.
	Preventive measures	Reboot the system to clear the problem.

6.4 Specifying a Component Group for Installation

For a normal installation, you would install all the packages provided for the target system. In some cases, however, you may wish to install only the required minimum number of packages for a certain requirement level. In such cases, this software provides for installation of packages defined in a component group. You can choose packages to install by specifying a component group based on system requirements.

This appendix explains how to specify an installation component group.

Note:

If CORE or BASIC is specified for the component group, some components supplied as functions of this software are not installed.

6.4.1 Notes on using the component group specification option

- Update installation cannot be used.
Delete this software, then perform initial installation.
To delete this software, save any environment settings files if as required
- This option does not support Solaris Live Upgrade.
Use the normal installation procedure.
- Cannot be used on partition installer of "System Console Software".

6.4.2 Component groups

The components to be installed are determined by specifying a component group. The following two component groups are provided by this software. If a component group is not specified, the Full component group will be installed.

Component-group	Description
CORE	Component group of basic functions of Enhanced Support Facility. Mandatory components for system operation of system such as DR command, SCF driver, Machine Administration, Reliability Driver, Server Default Configuration, System Data Output Tool, Crash Dump Assistant, and Auto Dump Analyze Tool will be installed. These components make hardware and software operation more reliable.
BASIC	CORE component group plus user utility components such as SunVTS, FJVTS, and automatic power control.
FULL	BASIC component group plus GUI operation function. All components including Web-Based Admin View /WWW Server for Admin View, Machine Administration GUI package and Auto Power Control System GUI package will be installed.

See Chapter 12, "About an installation and an individual installation which specifies the component group of Enhanced Support Facility," in the "Security System Building Guide Enhanced Support Facility" for more detail information.

Refer to Appendix B, "Component Programs by Model," for information on the packages that are installed in each component group.

Note:

The component groups are mutually exclusive; only one can be selected at a time.

6.4.3 Specifying a component group for installation

To specify a component group for installation, use the following component group specification option.

Format `esfadd [-c] [-O COMPONENT-GROUP]`

For COMPONENT-GROUP, specify the component group to be installed.

If the `-c` option is specified, you can confirm the package that will be installed.

Execution example (PRIMEPOWER450, Solaris 8, and BASIC component installation)

1. Confirm the package to be installed.

```
# bin/esfadd -c -O BASIC <Return>
```

The following message is displayed.

```
Check the package that will be updated.
Platform: FJSV,GPUZC-M(P)
OS Release: Solaris 8
COMPONENT GROUP: BASIC
```

If this software is not installed, the following message is displayed.

```
esfadd: INFO: This software is not installed on the system.
```

2. To perform installation, specify the option in the `esfadd` command.

```
# bin/esfadd -O BASIC <Return>
```

The following message is displayed.

```
Enhanced Support Facility 3.0 will be installed.
Platform: FJSV,GPUZC-M(P)
OS Release: Solaris 8
COMPONENT GROUP: BASIC
Do you want to continue with this installation? [yes or no ?]: yes <Return>
```

Note 1

The following message is displayed when a package component which is not included in the specified component group, is installed on the system.

```
Enhanced Support Facility 3.0 will be installed.
Platform: FJSV,GPUZC-M(P)
OS Release: Solaris 8
COMPONENT GROUP: BASIC
NOTE: The following package(s) not included in the specified component group
is installed.
PACKAGENAME1 PACKAGENAME2
Do you want to continue with this installation? [yes or no ?]:
```

Type "no" to exit the installation and check the system environment.

If the package has been installed by other software, there is no problem about this message.
Please continue the installation.

For notes on installation, see Section 5.3.5, "Installing Enhanced Support Facility."

3. To check the version of each installed package, use the `esfver` command (as in a normal installation).

```
# /opt/FJSVbse/bin/esfver -1 <Return>
```

The version of each package is displayed.

```
esfver: INFO: Individual Packages Version of already installed Enhanced
Support Facility.
COMPONENT-GROUP: BASIC
PKGNAME          VERSION      REVISION
-----
FJSVbse          3.0         2006.12.1200
FJSVscdx         1.1         2005.01.1100
                 :
                 :
FJSVcpupd        1.0         2005.11.1500
-----
```

4. To delete a package, use the `esfrm` command (as in a normal installation). No options are required.

```
# bin/esfrm <Return>
```

The following message is displayed. Type "all," "part," or "no."

```
Enhanced Support Facility 3.0 will be removed.
COMPONENT-GROUP: BASIC
FJSVbse          Enhanced Support Facility Information Management
                 (sparc) 3.0,REV=2006.12.1200
                 :
                 :
FJSVpmgc         Patch Management Tool - fjcollect command
                 (sparc) 1.0,REV=2005.11.1500

There is a possibility system problem(s) when the package(s) marked with
an "*"
are deleted.

Please input "all" when you want to remove all packages. Input "part"
when you want to remove only package(s) not marked with an "*",
and input "no" if you want to interrupt the uninstall.

Please select. [no, all or part]:
```


6.4.3.1 Flowchart of Building Logical Domains Environment

The following describes how to install the Enhanced Support Facility by specifying component groups to create Logical Domains.

This chapter explains the installation steps.

- 1) The installation procedure to install the Enhanced Support Facility into the control domain is described in “6.4.3.2 Building Procedure for the Control Domain”.
- 2) The installation procedure to install the Enhanced Support Facility into the guest domain is described in “6.4.3.3 Building Procedure for the Guest Domain”.

6.4.3.2 Building Procedure for the Control Domain

Install the Enhanced Support Facility by specifying component groups to install the Logical Domains Manager.

- 1) Install the OS into the mainframe.
For more information, please refer to documents issued by Sun Microsystems, Inc.
- 2) Install the Enhanced Support Facility by specifying component groups to install the Logical Domains Manager.
Please refer to “6.4 Installation by Specifying Component Groups”.
- 3) Install the Logical Domains Manager.
For more information, please refer to documents issued by Sun Microsystems, Inc.
- 4) Set syslog information.
Set syslog information for the Enhanced Support Facility.
Check whether the following entry exists in the /etc/syslog.conf file after installing the Logical Domains Manager, and if it does not exist, please add the following line to that file.

```
*.err;kern.debug;daemon.notice<tab>/var/opt/FJSVmadm/evh/evh_pipe
```

<tab> means creating space before and after by pressing the tab key.

Set syslog information of the Enhanced Support Facility.
- 5) Reboot the system.
- 6) Set up the control domain.
For more information, please refer to documents issued by Sun Microsystems, Inc.
Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.
- 7) Set up the guest domain by the control domain.
For more information, please refer to documents issued by Sun Microsystems, Inc.

6.4.3.3 Building Procedure for the Guest Domain

- 1) Install the OS and Enhanced Support Facility into the guest domain you set up.
Please refer to “6.4 Installation by Specifying Component Groups”.

6.5 Solaris Live Upgrade

Enhanced Support Facility 2.4.1 and later support Solaris Live Upgrade.

- This product can be upgraded using by Solaris Live Upgrade.
Using an unsupported version or incorrectly following the procedure may damage the system. Proceed carefully.
- Before starting the upgrade operation, be sure to confirm the procedure in the Solaris Installation Guide issued by Sun Microsystems, Inc. Also, read Section 6.5.1, "Restrictions," provided later in this Appendix and then perform the upgrade operation according to Section 6.5.2, "Upgrade procedure."
- For notes on the Enhanced Support Facility installation operation, see Chapter 4, "Restrictions and Notes" in this guide.

6.5.1 Restrictions

There are restrictions when upgrading Enhanced Support Facility using Solaris Live Upgrade:

- Solaris Live Upgrade can be used only if Enhanced Support Facility 2.4.1 or later has been installed.
- Solaris Live Upgrade cannot be used on the system where upgrade installation has been performed from Enhanced Support Facility 2.3 or earlier to Enhanced Support Facility 2.4.1 or later.
- Upgrades from Solaris8 10/01 or earlier are not supported

6.5.2 Upgrade procedure

An overview of the upgrade procedure for Enhanced Support Facility is described below.

For detailed procedures, see the section(s) provided in each paragraph.

- 1) Prepare for defining a new boot environment and confirm the environment.
 - 6.5.2.1 Preparation for creating "New Boot Environment" and confirming environment
 - 6.5.2.1.1 Checking the system environment
- 2) Create and mount a "New Boot Environment".
 - 6.5.3 Creating a New Boot Environment and Deleting Software
 - 6.5.3.1 Creating and mounting a new boot environment
- 3) Back up Enhanced Support Facility configuration files.
 - 6.5.3.2 Saving the environment settings files
 - 6.5.3.2.1 Package containing environment settings files
 - 6.5.3.2.2 Saving environment settings files
- 4) Delete current Enhanced Support Facility from "New Boot Environment".
 - 6.5.3.3 Deleting the software from new boot environment
- 5) Unmount "New Boot Environment".
 - 6.5.3.4 Unmounting the new boot environment
 - 6.5.3.5 Removing the CD-ROM
- 6) Update Solaris and any other software packages in the "New Boot Environment".
 - 6.5.4 Upgrading the Operating Environment
- 7) Mount "New Boot Environment".
 - 6.5.5 Installing Software
 - 6.5.5.1 Mounting the new boot environment
- 8) Install new Enhanced Support Facility to "New Boot Environment".
 - 6.5.5.2 Installing this software in the new boot environment
- 9) Restore the environment settings files that have been saved to "New Boot Environment".
 - 6.5.6 Restoring Environment Data in the New Boot Environment.

- 10) Unmount and activate the "New Boot Environment" to switch boot environment.
 - 6.5.7 Switching the Boot Environment
 - 6.5.7.1 Unmounting the new boot environment
 - 6.5.7.2 Switching the active boot environment
 - 6.5.7.3 Starting the system in the new boot environment
- 11) Restore remaining environment settings files to "New Boot Environment".
 - 6.5.8 Restoring the Environment after Starting the New Boot Environment
 - 6.5.8.1 Restoring the environment
 - 6.5.8.2 Restarting Web-Based Admin View/WWW Server for Admin View
 - 6.5.8.3 Environment setting after installation

6.5.2.1 Preparation for creating "New Boot Environment" and confirming environment

6.5.2.1.1 Checking the system environment

Confirm in advance that Enhanced Support Facility version 2.4.1 or later is currently installed.

- 1) Check the version of Enhanced Support Facility installed on the running system.

```
# /opt/FJSVbse/bin/esfver <Return>
```

Example: When Enhanced Support Facility 2.4.1 is installed:

```
esfver: INFO: Integrated Version of already installed Enhanced Support
Facility.
VERSION=2.4.1 REVISION=2004.07.2000,
```

Confirm the displayed version. If Enhanced Support Facility version 2.3 or earlier is installed, Solaris Live Upgrade cannot be executed.

6.5.3 Creating a New Boot Environment and Deleting Software

Use the new boot environment to temporarily delete all Enhanced Support Facility components before upgrading the operating system. Be sure to first save the environment settings file of each component before deleting the components.

6.5.3.1 Creating and mounting a new boot environment

1. Use the **lucreate** command to create a new boot environment.

Note:

For information about installing Solaris Live Upgrade and creating a new boot environment, refer to the documents provided by Sun Microsystems, Inc.

2. Mount the new boot environment.

```
# /usr/sbin/lumount ALTERNATIVE <Return>
```

ALTERNATIVE: Indicates the new boot environment name.

3. The mount point is reported.

```
/.alt.ALTERNATIVE
```

6.5.3.2 Saving the environment settings files

6.5.3.2.1 Package containing environment settings files

Check to see if any of the installed packages contain environment settings files. If installed packages contain environment settings files, save the files.

For the packages that contain environment settings files, see the following:

- 1) For PRIMEPOWER900/1500/2500, the following packages have environment settings files.

Package name	Environment settings file
FJSVdr FJSVdrcmd	/etc/opt/FJSVdr/reply/C/dr_op
FJSVscr3 FJSVscu3	/etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scf.conf /etc/opt/FJSVhwr/adrc.conf
FJSVwvbs	The wvEnvsave command is provided to save/restore the environment setting file.
FJSVmasv FJSVcmnd	The savelogs command is provided to save/restore the environment setting file.
FJSVapcs	/var/opt/FJSVapcs/*

- 2) For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850, the following packages have environment settings files.

Package name	Environment settings file
FJSVscr3 FJSVpscr	/etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scf.conf
FJSVwvbs	The wvEnvsave command is provided to save/restore the environment setting file.
FJSVmasv FJSVrlib FJSVragt FJSVrmaos FJSVcmrm FJSVcmnd FJSVprrm FJSVpmnd	The savelogs command is provided to save/restore the environment setting file.
FJSVapcs	/var/opt/FJSVapcs/*

6.5.3.2.2 Saving environment settings files

For PRIMEPOWER900/1500/2500:

If the Dynamic Reconfiguration is used and the reply file has been changed save the reply file.

For details, see Section 3.6.2, "Reply file" in the "Dynamic Reconfiguration User's Guide."

```
RC2000 # cp /etc/opt/FJSVdr/reply/C/dr_op save_file <Return>
```

Save the SCF Driver environment setting files.

- For the PRIMEPOWER900/1500/2500.

```
RC2000 # cd /.alt.ALTERNATIVE <Return>
RC2000 # ls ./etc/opt/FJSVhwr/pwrctl.property ./etc/opt/FJSVhwr/scfconf
./etc/opt/FJSVhwr/adrc.conf | cpio -o -O save_file <Return>
```

When Web-Based Admin View/WWW Server for Admin View is used, use the `wvEnvsave` command to save the environment settings file of the FJSVwvbs package.

```
RC2000 # /etc/opt/FJSVwvbs/etc/bin/wvEnvsave save_file <Return>
```

When machine administration or remote support is used, use the `savelogs` command to save the environment settings file of the packages that make up machine administration and remote support.

```
RC2000 # /usr/sbin/FJSMadm/savelogs -mo save_file_directory <Return>
```

When an automatic power control system is used, save the environment settings file of the FJSVapcs package.

```
RC2000 # cd / <Return>
RC2000 # find /var/opt/FJSVapcs/ -print -depth | /usr/bin/cpio -o -O save_file
<Return>
```

Save the System Management Console settings <ONLY for PRIMEPOWER900/1500/2500>.

```
RC2000 # cp /etc/FJSVscslhostname save_file <Return>
```

For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850:

Save the SCF driver settings file.

```
# cd /.alt.ALTERNATIVE <Return>
# ls ./etc/opt/FJSVhwr/pwrctl.property ./etc/opt/FJSVhwr/scf.conf
| /usr/bin/cpio -o -O save_file <Return>
```

Save the SCF/SCSI Fault LED support option setting files (for SPARC Enterprise M4000/M5000/M8000/M9000).

```
# cd /.alt.ALTERNATIVE <Return>
# ls ./etc/opt/FJSVhwr/adrc.conf | cpio -o -O save_file name <Return>
```

When Web-Based Admin View/WWW Server for Admin View is used, use the `wvEnvsave` command to save the environment settings file of the FJSVwvbs package.

```
# /etc/opt/FJSVwvbs/etc/bin/wvEnvsave save_file <Return>
```

When machine administration or remote support is used, use the `savelogs` command to save the environment settings file of the packages that make up machine administration and remote support.

```
# /usr/sbin/FJSMadm/savelogs -mo save_file_directory <Return>
```

When an automatic power control system is used, save the environment settings file of the FJSVapcs package.

```
# cd / <Return>
# find /var/opt/FJSVapcs/ -print -depth | /usr/bin/cpio -o -O save_file
<Return>
```

6.5.3.3 Deleting the software from new boot environment

To delete Enhanced Support Facility from the new boot environment, delete it using the CD-ROM containing the same version of Enhanced Support Facility that is currently installed.

1. Mount the Enhanced Support Facility CD-ROM.

For PRIMEPOWER900/1500/2500, use the CD-ROM drive connected to the system console.

- a) Insert the Enhanced Support Facility CD-ROM into the CD-ROM drive connected to the system console.
- b) Mount the CD-ROM.

```
# mkdir -p /cdrom <Return>
# /usr/sbin/mount -F nfs -o ro,vers=2 host:/cdrom/cdrom0 /cdrom <Return>
```

host: Indicates the host name of system management console.

- For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850, insert the Enhanced Support Facility CD-ROM into the CD-ROM drive.

2. Move to the directory in which the CD-ROM is mounted.

```
# cd /cdrom/cdrom0 <Return>
```

or

```
# cd /cdrom <Return>
```

3. Delete the Enhanced Support Facility from the new boot environment.

Use the `esfrm` command from the CD-ROM containing the same version of Enhanced Support Facility that is currently installed on the new boot environment.

```
# bin/esfrm -R /.alt.ALTERNATIVE <Return>
```

/.alt.ALTERNATIVE: Indicates the boot environment mount point.

Note 1: The mount point must not be followed by a slash (/).

Error: # bin/esfrm -R /.alt.ALTERNATIVE/ <Return>

The message below appears. Type "all," "part," or "no."

```
Enhanced Support Facility 2.4.1 will be removed.

FJSVbse      Enhanced Support Facility Information Management
              (sparc) 2.4.1,REV=2004.07.2000
              :
              :
FJSVcpupd    CPU patrol diagnosis
              (sparc) 1.3,REV=2003.10.0900

There is a possibility to cause problem in the system when the
packages where "*" adheres to the head of the package name is deleted.

Please input "all" when you want to remove all packages,input "no"
when you want to interrupt the uninstallation, or input "part" when
you want to remove only packages where "*" does not adhere.

Please select. [no,all or part]:
```

Note 2: If Enhanced Support Facility version 2.3 or earlier is displayed, enter "no" to quit processing.

Note that deleting Enhanced Support Facility 2.3 or earlier in the new boot environment may damage the system. Live Upgrade should not be used in this case.

```
Enhanced Support Facility 2.3 will be removed.

FJSVbse      Enhanced Support Facility Information Management
              (sparc) 2.3,REV=2003.02.1400
              :
Please select. [no,all or part]:
```

The following message will be displayed. Type "yes" to proceed

- For Enhanced Support Facility 2.4.1, 2.5 and 2.5.1

This message is warning that damage to the system may occur if Enhanced Support Facility 2.3 or earlier is removed from the new boot environment.

```
-Important Confirmation-
When some ESF packages which can not support to Remote Install exist in
/.alt.ALTERNATIVE, there is a possibility that not only the installation target
system but also the system operating now may be destroyed.
You should delete those packages from /.alt.ALTERNATIVE according to the
INSTALLATION GUIDE.

Have you referred to the INSTALLATION GUIDE and confirmed the package versions
[yes or no ?]:
```

- For Enhanced Support Facility 2.6 and 3.0.

```
Solaris Live Upgrade can not be used to upgrade from Enhanced Support
Facility 2.3 or earlier. Certain Enhanced Support Facility 2.3 or
earlier packages may not support remote un-installation (esfrm -R),
and may cause damage to the system during un-installation.
Do not proceed with removal of Enhanced Support Facility if revision 2.3 or earlier
is installed.
Do you want to continue with the removal of Enhanced Support Facility from the
alternate boot environment? [yes or no?]:
```

Note 3: Please select "part" if the following message is displayed.

Please select "part" not to remove packages having an asterisk (*).

A package with an asterisk (*) at the head of its name has been installed with a product other than Enhanced Support Facility.

If you select "all", packages having an asterisk (*) are removed and the behavior of products other than Enhanced Support Facility is affected by this.

```

Enhanced Support Facility 2.4.1 will be removed.

FJSVbse      Enhanced Support Facility Information Management
             (sparc) 2.4.1,REV=2004.07.2000
*FJSVwvcnf   WWW Server for Admin View
             (sparc) 2.0.3,REV=2002.04.1800
             :
             :
FJSVcpupd    CPU patrol diagnosis
             (sparc) 1.5,REV=2002.11.2700

There is a possibility of system problems when package names marked "*" are
deleted.

Please input "all" when you want to remove all packages. input "no"
when you want to interrupt the uninstall, or input "part" when
you want to remove only packages not marked by "*".
Please select. [no, all or part]:

```

Note 4: The following message may appear but can be ignored.
If following message is displayed during deletion of the SUNWvts package, you can ignore this.

```

/var/sadm/pkg/SUNWvts/install/preremove: usage: kill [ [ -sig ] id ...
| -l ]
SMM message filter module "msgfltr" not found

```

Note 5: The following message may appear but can be ignored.
The following message may be displayed when installing FJSVscr3, FJSVpscr, FJSVdef, or FJSVcmnd packages, but the removal will complete normally.

```

cron may not be running - call your system administrator

```

6.5.3.4 Unmounting the new boot environment

1. Move to the root directory.

```
# cd / <Return>
```

2. Unmount the new boot environment.

```
# /usr/sbin/luumount ALTERNATIVE <Return>
```

ALTERNATIVE: Indicates the new boot environment name.

6.5.3.5 Removing the CD-ROM

1. Eject the CD-ROM.

6.5.4 Upgrading the Operating Environment

Use Solaris Live Upgrade to update the system operating environment.

Note:

For information about updating Solaris, refer to the documents provided by Sun Microsystems, Inc.

6.5.5 Installing Software

Install Enhanced Support Facility 3.0 in the new boot environment after upgrading the operating system.

6.5.5.1 Mounting the new boot environment

1. Mount the newly created boot environment.

```
# /usr/sbin/lumount ALTERNATIVE <Return>
```

ALTERNATIVE: Indicates the new boot environment name.

2. The mount point is reported.

```
/.alt.ALTERNATIVE
```

6.5.5.2 Installing this software in the new boot environment

Use the Enhanced Support Facility version 3.0 CD-ROM to install Enhanced Support Facility on the new boot environment.

1. Mount the Enhanced Support Facility 3.0 CD-ROM.

For PRIMEPOWER900/1500/2500 use the CD-ROM drive connected to the system console.

- a) Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive connected to the system console.
- b) Mount the CD-ROM.

```
# mkdir -p /cdrom <Return>
# /usr/sbin/mount -F nfs -o ro,vers=2 host:/cdrom/cdrom0 /cdrom <Return>
```

host: Indicates the host name of system management console.

- For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850, insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive.

2. Move to the directory in which the CD-ROM is mounted.

```
# cd /cdrom/cdrom0 <Return>
```

or

```
# cd /cdrom <Return>
```

3. Install the Enhanced Support Facility 3.0 in the new boot environment.

```
# bin/esfadd -R /.alt.ALTERNATIVE <Return>
```

/.alt.ALTERNATIVE: Indicates the new boot environment mount point.

Note 1 The mount point must not be followed by a slash (/).

Error: # bin/esfrm -R /.alt.ALTERNATIVE/ <Return>

Messages similar to the following appears. Confirm the displayed information. If the information is correct, type "yes."

Example: For Enhanced Support Facility 3.0 on PRIMEPOWER450:

```
Enhanced Support Facility 3.0 will be installed.
INSTALL-ROOT: /.alt.ALTERNATIVE
Platform: FJSV,GPUZC-M
OS Release: Solaris 9
Do you want to continue with this installation? [yes or no ?]:
```

Next, the system confirms that the -R option has been specified. Type "yes".

```
NOTE: -R option
Do you want to continue with this installation? [yes or no ?]:
```

Note 2 If the message shown below is displayed, enter "n" to quit processing.

If the following message appears during installation, type n to stop installation processing.

```
A version of the <pkginst> package is already installed on this machine.
Current administration does not allow new instances of an existing package
to be created, nor existing instances to be overwritten.

No changes were made to the system.

There are n more packages to be installed.

Do you want to continue with installation [y,n,?]
```

Note 3 The following message may appear but can be ignored.

For Solaris 9 or Solaris 10 if the following message appears during installation of the SUNWvts package, there is no problem.

```
var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ...
| -l ]
```

Note 4 The following message may appear but can be ignored.

The following message may be displayed when installing FJSVscr3, FJSVpscr, FJSVdef, or FJSVcmnd packages, but the installation will complete normally.

```
cron may not be running - call your system administrator
```

4. Unmount the CD-ROM.

For Solaris 8

```
# cd / <Return>
```

For Solaris 9 or Solaris 10

```
# cd / <Return>
# /usr/sbin/umount /cdrom <Return>
```

or

```
# cd / <Return>
# /usr/sbin/umount /cdrom/cdrom0 <Return>
```

5. Eject the Enhanced Support Facility 3.0 CD-ROM.

6. Insert the Manuals & Patches 3.0A30 CD-ROM into the CD-ROM drive to mount the CD-ROM.

Please refer to 1) to learn how to mount the CD-ROM.

7. Move to the directory where the CD-ROM is mounted to execute the esfpachadd command with the following procedure.

```
# cd /cdrom/ESFREMCSPP <Return>
# bin/esfpachadd -R /.alt.ALTERNATIVE <Return>
```

or

```
# cd /cdrom/cdrom0/ESFREMCSPP <Return>
```

```
# bin/esfpatchadd -R /.alt.ALTERNATIVE <Return>
```

/.alt.ALTERNATIVE: Indicates the new boot environment mount point.

Note 1 The mount point must not be followed by a slash (/).

Error: # bin/esfpatchadd -R /.alt.ALTERNATIVE/ <Return>

Messages similar to the following appears. Confirm the displayed information.

If the information is correct, type "yes."

```
Enhanced Support Facility 3.0 correction patches will be applied.
```

```
Platform: FJSV,GPUZC-M (P)
```

```
OS Release: Solaris 10
```

```
Do you want to continue with this installation? [yes or no ?]: yes
```

8. Eject the Manuals & Patches 3.0A30 CD-ROM.

6.5.6 Restoring Environment Data in the New Boot Environment

Restore the environment settings files for packages saved according to Section 6.5.3.2, "Saving the environment settings files." Perform this operation only if you saved environment settings files.

Restore the environment settings files for Web-Based Admin View/WWW Server for Admin View after starting the system in the new boot environment. Perform this operation by referring to Section 6.5.8, "Restoring the environment after starting the new boot environment" in this chapter.

1. For PRIMEPOWER900/1500/2500

Restore the settings file for the Dynamic Reconfiguration.

Modify the new reply file that is located at `/etc/opt/FJSVdr/reply/C/dr_op`. Please use the saved previous reply file for reference. There might be new reply messages added due to Enhanced Support Facility upgrade. See Section 6.1.3.3, "Inquiring Messages," or 7.1.3.3, "Inquiring Messages," in the "Dynamic Reconfiguration User's Guide" before modifying the reply file.

Restore the settings file for the SCF driver.

- For PRIMEPOWER900/1500/2500:

```
RC2000 # cd /.alt.ALTERNATIVE <Return>
RC2000 # cpio -iu -I save_file <Return>
RC2000 # chown root ./etc/opt/FJSVhwr/pwrctl.property
./etc/opt/FJSVhwr/scf.conf ./etc/opt/FJSVhwr/adrc.conf <Return>
RC2000 # chgrp sys ./etc/opt/FJSVhwr/pwrctl.property
./etc/opt/FJSVhwr/scf.conf <Return>
RC2000 # chgrp root ./etc/opt/FJSVhwr/adrc.conf <Return>
```

Restore the settings file for the automatic power control system.

```
RC2000 # cd / <Return>
RC2000 # find var/opt/FJSVapcs/ -print -depth | cpio -pud /.alt.ALTERNATIVE
<Return>
```

Restore the settings files for machine administration, and remote support.

```
RC2000 # /usr/sbin/FJSVadm/savelogs -r -R /.alt.ALTERNATIVE
save_file_directory <Return>
```

Restore the System Management Console setting <ONLY for PRIMEPOWER900/1500/2500>

```
RC2000 # cp save_file /.alt.ALTERNATIVE/etc/FJSVscsihostname <Return>
```

2. For SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850:

Restore the settings file for the SCF driver.

```
# cd /.alt.ALTERNATIVE <Return>
# cpio -iu -I save_file <Return>
# chownroot ./etc/opt/FJSVhwr/pwrctl.property
./etc/opt/FJSVhwr/scf.conf <Return>
# chgrp sys ./etc/opt/FJSVhwr/pwrctl.property
./etc/opt/FJSVhwr/scf.conf <Return>
```

Restore the SCF/SCSI Fault LED support option setting files
(for SPARC Enterprise M4000/M5000/M8000/M9000).

```
# cd /.alt.ALTERNATIVE <Return>
# cpio -iu -I save_file <Return>
# chown root ./etc/opt/FJSVhwr/adrc.conf <Return>
# chgrp root ./etc/opt/FJSVhwr/adrc.conf <Return>
```

Restore the settings file for the automatic power control system.

```
# cd / <Return>
# find var/opt/FJSVapcs/ -print -depth | cpio -pud /.alt.ALTERNATIVE
```

Restore the settings files for machine administration, and remote support.

```
# /usr/sbin/FJSVadm/savelogs -r -R /.alt.ALTERNATIVE save_file_directory
<Return>
```

6.5.7 Switching the Boot Environment

6.5.7.1 Unmounting the new boot environment

1. Move to the root directory.

```
# cd / <Return>
```

2. Use the luumount command to unmount the new boot environment.

```
# /usr/sbin/luumount ALTERNATIVE <Return>
```

ALTERNATIVE: Indicates the new boot environment name.

6.5.7.2 Switching the active boot environment

1. Use the luactivate command to switch from the active boot environment to the new one.

```
# /usr/sbin/luactivate ALTERNATIVE <Return>
```

6.5.7.3 Starting the system in the new boot environment

After switching the active boot environment, the system restarts with the new boot environment. Before this processing, confirm that all jobs in the running system have terminated.

1. Reboot the system.

```
# /usr/sbin/shutdown -y -g0 -i6 <Return>
```

Note

If the system is restarted with the reboot command, the boot environment will not be switched correctly.

For query messages displayed after the boot environment has been switched, refer to the documents provided by Sun Microsystems, Inc.

6.5.8 Restoring the environment after starting the new boot environment

After you have started the new boot environment, restore the environments for Web-Based Admin View /WWW Server for Admin View. This is necessary only when environment settings files have been saved.

6.5.8.1 Restoring the environment

When an environment settings file has been saved from the boot environment before switching, mount the original boot environment.

1. Mount the original boot environment.

```
# /usr/sbin/lumount ORIGINAL <Return>
```

ORIGINAL: Indicates the original boot environment name.

2. The mount point is reported.

```
/.alt.ORIGINAL
```

The boot environment is mounted at the reported mount point.

If an environment settings file has been saved from the boot environment before switching, restore saved files as follows. (i.e. save destination is under the reported mounted point.)

Use the `wvEnvload` command to restore the environment settings file for Web-Based Admin View /WWW Server for Admin View.

```
# /etc/opt/FJSVwvbs/etc/bin/wvEnvload save_file <Return>
```

6.5.8.2 Restarting Web-Based Admin View/WWW Server for Admin View

Restart Web-Based Admin View/WWW Server for Admin View so that the settings in the restored settings file take effect.

1. Use the `luumount` command to unmount the boot environment.

```
# /usr/sbin/luumount ORIGINAL <Return>
```

2. Restart Web-Based Admin View/WWW Server for Admin View.

(This is not necessary if the system is restarted.)

```
# /etc/opt/FJSVwvbs/etc/bin/wvCntl restart
# /etc/init.d/fjswvcnf restart
```

6.5.8.3 Environment setting after installation

Refer to Section 5.2.6, "Environment setting after installation" or Section 5.3.9, "Environment setting after installation"

6.6 Installation in a Partition

A partition installer can be used to automatically install the Solaris OS and other products (Enhanced Support Facility, PTF, drivers) in a partition of the PRIMEPOWER900/1500/2500.

If you install Enhanced Support Facility 3.0 by using the partition installer, please be sure to install Enhanced Support Facility 3.0 and Manuals & Patches 3.0A30.

For details on how to use the partition installer, refer to Section 7.3, "Installation on a Partition," in the "System Console Software User's Guide."

6.7 Unified Installer

The unified installer is a function of Systemwalker Resource Coordinator. It can use a customized version of Solaris JumpStart via a network to automatically install the Solaris OS, middleware such as Enhanced Support Facility, and drivers.

The unified installer can be used not only for initial installation but also for installation of additional nodes and products.

The unified installer thus simplifies installation in a multiple-node system.

If you install Enhanced Support Facility 3.0 by using the unified installer, please be sure to install Enhanced Support Facility 3.0 and Manuals & Patches 3.0A30.

For the features of the unified installer and details on how to use it, refer to the "Systemwalker Resource Coordinator User's Guide for Unified Installer."

Appendix A Command Reference

A.1 esfadd (1M)

NAME

`esfadd` - Install Enhanced Support Facility onto the system

SYNOPSIS

```
esfadd [-c] [-R mountpoint] [-O component-group] [-d directory]
```

DESCRIPTION

`esfadd` determines the system platform automatically and installs Enhanced Support Facility onto the system using the Enhanced Support Facility media(CD-ROM).If an older versions of Enhanced Support Facility is already installed on the system, this command will upgrade them.

OPTIONS

The following options are available:

- c**
Display the current version and the new version of the packages to be updated.
- R *mountpoint***
Enhanced Support Facility will be installed in the Boot Environment specified by *mountpoint*
- O *component-group***
Specifying a Component Group for Installation. If the `-O` option isn't specified, Full component group will be installed.
See Section 6.4, "Specifying a Component Group for Installation" for more details.
- d *directory***
Specify the directory where the packages of Enhanced Support Facility exist with a full pathname.

The package directories are as follows:

Platform	OS version	package directory
PW-CLZ	Solaris 8	< <i>mount_point</i> >/Platform/C_L_Z/8
	Solaris 9	< <i>mount_point</i> >/Platform/C_L_Z/9
	Solaris 10	< <i>mount_point</i> >/Platform/C_L_Z/10
PW-CMZ	Solaris 8	< <i>mount_point</i> >/Platform/C_M_Z/8
	Solaris 9	< <i>mount_point</i> >/Platform/C_M_Z/9
	Solaris 10	< <i>mount_point</i> >/Platform/C_M_Z/10
PW-CL	Solaris 8	< <i>mount_point</i> >/Platform/C_L/8
	Solaris 9	< <i>mount_point</i> >/Platform/C_L/9
	Solaris 10	< <i>mount_point</i> >/Platform/C_L/10
PW-CM	Solaris 8	< <i>mount_point</i> >/Platform/C_M/8
	Solaris 9	< <i>mount_point</i> >/Platform/C_M/9
	Solaris 10	< <i>mount_point</i> >/Platform/C_M/10
PW-P	Solaris 8	< <i>mount_point</i> >/Platform/P/8
	Solaris 9	< <i>mount_point</i> >/Platform/P/9
	Solaris 10	< <i>mount_point</i> >/Platform/P/10
CW	Solaris 10	< <i>mount_point</i> >/Platform/CW/10
LE	Solaris 10	< <i>mount_point</i> >/Platform/LE/10

Note

The following messages are displayed when the model is wrong as correspond the package directory and it ends.

```
esfadd: ERROR: The specified source directory is incorrect.
```

EXIT STATUS

The following exit values are returned:

- 0 Successful execution.
- 1 Fatal error.
- 2 Usage or Warning.
- 3 Interruption.
- 4 Administration.
- 10 Reboot after installation of all packages.
- 20 Reboot after installation of this package.

SEE ALSO

`esfrm(1M)`, `esfpatchadd(1M)`, `pkgrm(1M)`, `pkgadd(1M)`

NOTES

- When the `-c` option is specified, Enhanced Support Facility will not be installed. This option is used to check for previous revisions of Enhanced Support Facility installed on the system.
- When two or more packages are installed, the following messages are displayed, and the installation is ended. Please reinstall Enhanced Support Facility after restoring the system. (Refer to appendix C.1.1.)

```
esfadd: ERROR: Two or more instances of the following package(s) are existing on
the system.
SUNWvts SUNWvts.2

Exit installation.
```

A.2 esfrm (1M)

NAME

`esfrm` - Remove Enhanced Support Facility from the system

SYNOPSIS

```
esfrm [-n] [-R mountpoint]
```

DESCRIPTION

`esfrm` removes a previously installed Enhanced Support Facility from the system.

The default state for the command is in interactive mode, meaning that prompt messages are given during processing to allow the administrator to confirm the actions being taken for the removal of the Enhanced Support Facility. Non-interactive mode can be requested with the `-n` option.

When this command is invoked, the package list to be removed is displayed, and then the prompt with the input "all" displayed. The `esfrm` commands operates as follows after the prompt.

1. For the package(s) with the "*" (warning) mark is displayed in the package list, exist.
 - "all" : The esfrm command removes all packages in the list.
 - "no": The esfrm command terminates, and ds not remove any Enhanced Support Facility packages.
 - "part": The esfrm command removes all package(s) with out the "*" (warning) displayed in the list.
2. For the package(s) with the "*" (warning) mark is displayed in the package list, do not exist.
 - "all" : The esfrm command removes all packages in the list.
 - "no": The esfrm command terminates, and ds not remove any Enhanced Support Facility packages.
 - "part": Same result as "all."

OPTIONS

The following option is available:

-n

If this option is specified, Enhanced Support Facility is removed from the system in non-interactive mode. Packages are removed compulsorily even if those packages require interaction.

-R *mountpoint*

Enhanced Support Facility will be removed from the Boot Environment specified by the *mountpoint*.

EXIT STATUS

The following exit values are returned:

- 0 Successful execution.
- 1 Fatal error.
- 2 Usage or Warning
- 3 Interruption.
- 4 Administration.
- 10 Reboot after removal of all packages.
- 20 Reboot after removal of this package.

SEE ALSO

`esfadd(1M)`, `pkgrm(1M)`

NOTES

- Be aware that other optional products may have dependencies on the packages in Enhanced Support Facility. In this case, esfrm will display WARNING messages as the result of dependency checking and ask you to verify the removal of the package. Do not remove any package on which other software products depend, and type "y" to continue execution. Note that if the -n option is specified, such important dependencies will not be checked.
- A "*" (warning) mark will be displayed when a package installed on the system is newer than the package on the CD-ROM. Be careful when removing the package because the package cannot be reinstalled with the CD-ROM. There may be other products on the system that require the package and removing the package may cause serious problems.

A.3 esfver (1M)

NAME

`esfver` – Display the version of the installed Enhanced Support Facility

SYNOPSIS

```
esfver [-l] [ -R mountpoint ]
```

DESCRIPTION

The `esfver` command displays the version number of the Enhanced Support Facility installed on the system. With the `-l` option, it displays the version number of each package.

Regarding the packages of the Enhanced Support Facility to be installed on the system, please refer to “Appendix B Component Programs by Model” .

OPTIONS

The following option is available:

-l

The version of each package included in the Enhanced Support Facility is displayed..

-R *mountpoint*

The version of Enhanced Support Facility installed in Boot Environment specified by *mountpoint* will be displayed.

EXIT STATUS

The following exit values are returned:

- 0 Successful execution.
- 1 Fatal error.
- 2 Usage.

SEE ALSO

`esfadd(1M)`, `esfrm(1M)`, `pkgparam(1M)`

NOTES

If two or more packages are installed on the system, the following messages appear.

After recovering the system, re-install the Enhanced Support Facility. (Refer to the Appendix C.1.1)

```
# /opt/FJSVbse/bin/esfver

esfver: INFO: Integrated Version of already installed Enhanced Support Facility.
VERSION=3.0 REVISION=2006.12.1200,

ESF_PATCH_VERSION = 3.0A30_20080115

-- WARNING --
Two or more instances of the following packages have been installed on the system.
FSUNlic FSUNlic.2
#
```

If no installed packages exist, the following messages appear.

After a list of existing packages is displayed, a list of non-existing packages is displayed.

In addition, regarding the packages of the Enhanced Support Facility to be installed on the system, please refer to "Appendix B Component Programs by Model"

```
# /opt/FJSVbse/bin/esfver -l

esfver: INFO: Individual Packages Version of already installed Enhanced Support Facility.
PKGNAME      VERSION      REVISION
-----
FJSVbse      3.0          2006.12.1200
FJSVscdx     1.9.2        2004.12.2100
:
:
FJSVhrm      2.0.3        2005.02.1500
Fail to get information of FJSVparam.
-----
ESF_PATCH_VERSION = 3.0A30_20080115
```

Note) Refer to Appendix C.1.2 if you want to restore any packages.

EXAMPLES

EXAMPLE1

```
# /opt/FJSVbse/bin/esfver

esfver: INFO: Integrated Version of already installed Enhanced Support Facility.
VERSION=3.0 REVISION=2006.12.1200,

ESF PATCH_VERSION = 3.0A30_20080115

#
```

EXAMPLE2 Example of displaying each package.

```
# /opt/FJSVbse/bin/esfver -l

esfver: INFO: Individual Packages Version of already installed Enhanced Support Facility.

PKGNAME      VERSION      REVISION
-----
FJSVbse      3.0          2006.12.1200
FJSVscdx     1.9.2        2004.12.2100
:
:
FJSVhrm      2.0.3        2005.02.1500
FJSVdcnf     1.0          2005.01.3100
-----

ESF PATCH_VERSION = 3.0A30_20080115

#
```

A.4 esfpatchadd (1M)

NAME

esfpatchadd - Applies patches to installed Enhanced Support Facility

SYNOPSIS

```
esfpatchadd [ -R mount_point ] [-d directory]
```

DESCRIPTION

The esfpatchadd command identifies a platform of the system automatically and applies patches to installed Enhanced Support Facility 3.0 from distributed Manuals & Patches 3.0A30 media (CD-ROM).

OPTIONS

The following options are available:

-R *mountpoint*

Enhanced Support Facility will be installed into the Boot Environment specified by *mountpoint*

-d *directory*

Specify the directory where the patches of Enhanced Support Facility are stored.

A full pathname should be given to the directory.

The directories containing the patches are as follows.

Platform	OS version	Patch directory
PW-CLZ	Solaris 8	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_L_Z/8
	Solaris 9	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_L_Z/9
	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_L_Z/10
PW-CMZ	Solaris 8	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_M_Z/8
	Solaris 9	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_M_Z/9
	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_M_Z/10
PW-CL	Solaris 8	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_L/8
	Solaris 9	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_L/9
	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_L/10
PW-CM	Solaris 8	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_M/8
	Solaris 9	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_M/9
	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/C_M/10
PW-P	Solaris 8	< <i>mount_point</i> >/ESFREMCSPP/Platform/P/8
	Solaris 9	< <i>mount_point</i> >/ESFREMCSPP/Platform/P/9
	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/P/10
CW	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/CW/10
LE	Solaris 10	< <i>mount_point</i> >/ESFREMCSPP/Platform/LE/10

Note

The command terminates with the following message when the right directory for the model is not specified.

```
esfpatchadd: ERROR: The specified source directory is incorrect.
```

EXIT STATUS

The following exit values are returned:

- 0 Successful execution.
- 1 Fatal error.
- 2 Usage or Warning.
- 3 Interruption.

SEE ALSO

esfadd(1M), esfrm(1M), pkgrm(1M), pkgadd(1M), patchadd(1M)

Appendix B Component Programs by Model

Abbreviation of model name

PW-P: PRIMEPOWER250/450

PW-CL: PRIMEPOWER1500 (Model equipped with SPARC64™ GP)

PW-CLZ: PRIMEPOWER900/1500 (Model equipped with SPARC64™ V)

PW-CM: PRIMEPOWER650(Model equipped with SPARC64™ GP)/850(Model equipped with SPARC64™ GP)

PW-CMZ: PRIMEPOWER650 (Model equipped with SPARC64™ V)/850 (Model equipped with SPARC64™ V)

LE: SPARC Enterprise T1000/T2000/T5120/T5220

CW: SPARC Enterprise M4000/M5000/M8000/M9000

Component group

C: CORE

B: BASIC

F: FULL

O: Supported, -: Not supported

B.1 Solaris™ 8 Operating System

No.	Component	Package name	VL	Model					Component group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.0	O	O	O	O	O	O	O	O
2	DR Command	FJSVdrcmd	1.8	-	O	O*1	-	-	O	O	O
3	SCF Driver	FJSVviomp	2.3	O	O	O	O	O	O	O	O
		FJSVscd3	1.3	-	O	O	O	O	O	O	O
		FJSVscr3	1.3.1	-	O	O	O	O	O	O	O
		FJSVscu3	1.3.1	-	O	O	O	O	O	O	O
		FJSVscuj3	1.3	-	O	O	O	O	O	O	O
		FJSVpscd	1.1	O	-	-	-	-	O	O	O
		FJSVpscr	1.1	O	-	-	-	-	O	O	O
		FJSVpscu	1.1.1	O	-	-	-	-	O	O	O
4	SunVTS, FJVTS	FJSVpscuuj	1.1	O	-	-	-	-	O	O	O
		SUNWvts	4.0	O	O	O	O	O	-	O	O
		SUNWvtsmn	4.0	O	O	O	O	O	-	O	O
		SUNWvtsx	4.0	O	O	O	O	O	-	O	O
5	Web-Based Admin View/ WWW Server for Admin View	FJSVvts	4.0	O	O	O	O	O	-	O	O
		FJSVwvcnf	2.0.3	O	O	O	O	O	-	-	O
6	Machine Administration	FJSVwvbs	2.1.2	O	O	O	O	O	-	-	O
		FJSVmasv	2.2.3	O	O	O	O	O	-	-	O
		FJSVmadm	1.2.3	O	O	O	O	O	O	O	O
		FJSVcmdnd	2.0	-	O	O	O	O	O	O	O
		FJSVpmnd	1.2.3	O	-	-	-	-	O	O	O
		FJSVmaom	2.0	O	O	O	O	O	-	-	O

No.	Component	Package name	VL	Model					Component group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
7	Remote Support	FJSVrlib	8.2.2	O	-	-	O	O	O	O	O
		FJSVragt	2.9	O	-	-	O	O	O	O	O
		FJSVrmaos	2.9	O	-	-	O	O	O	O	O
		FJSVrrda	2.9	O	O	O	O	O	O	O	O
		FJSVracm	2.9	O	O	O	O	O	O	O	O
		FJSVsirms	4.0	O	O	O	O	O	O	O	O
		FJSVcmrm	1.6	-	-	-	O	O	O	O	O
		FJSVcmrm2	1.2	-	O	O	-	-	O	O	O
		FJSVpmrm	1.3	O	-	-	-	-	O	O	O
8	Auto Power Control System	FJSVapcs	1.4.0	O	O	O	O	O	-	O	O
		FJSVapcww	2.0	O	O	O	O	O	-	-	O
9	Server Default Configuration	FJSVdef	1.2.4	O	O	O	O	O	O	O	O
		FJSVssf	2.0.2	O	O	O	O	O	O	O	O
		FJSVpnlx.us	2.1	O	O	O	O	O	O	O	O
		FJSVpnl.us	2.1	O	O	O	O	O	O	O	O
		FJSVwarn.us	1.3	O	O	O	O	O	O	O	O
10	System Data Output Tool	FJSVsnap	2.6	O	O	O	O	O	O	O	O
11	Crash Dump Assistant	FJSVdmp	1.5	O	O	O	O	O	O	O	O
12	Auto Dump Analyze Tool	FJSVana	1.1	O	O	O	O	O	O	O	O
13	Reliability Driver	FJSVsec	1.2.2	-	O	O	-	-	O	O	O
14	G-LAN error notification	FJSVgidad.us	2.0.1	O	O	O	O	O	O	O	O
15	G-LAN MTU setting	FJSVgidr.us	2.0.0	O	O	O	O	O	O	O	O
16	HCP	FJSVhcp	1.0	O	-	-	-	-	O	O	O
17	System Parameter Diagnosis	FJSVparam	1.1	O	O	O	O	O	O	O	O
18	HRM-S	FJSVhrm	3.0.0	O	O	O	O	O	-	-	O
19	Tape Driver Configuration Tool	FJSVdcnf	1.2	O	O	O	O	O	O	O	O
20	Patch Information Collect Command	FJSVpmgc	1.0	O	O	O	O	O	O	O	O

*1: DR command FJSVdrcmd is installed, but not supported.

B.2 Solaris™ 9 Operating System

No.	Component	Package name	VL	Model					Component Group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.0	O	O	O	O	O	O	O	O
2	NGDR Command	FJSVdr	1.3	-	O	O*1	-	-	O	O	O
3	SCF Driver	FJSViomp	2.3	O	O	O	O	O	O	O	O
		FJSVscd3	1.3		O	O	O	O	O	O	O
		FJSVscr3	1.3.1		O	O	O	O	O	O	O
		FJSVscu3	1.3.1		O	O	O	O	O	O	O
		FJSVscuj3	1.3		O	O	O	O	O	O	O
		FJSVpscd	1.1	O	-	-	-	-	O	O	O
		FJSVpscr	1.1	O	-	-	-	-	O	O	O
		FJSVpscu	1.1.1	O	-	-	-	-	O	O	O
4	SunVTS, FJVTS	FJSVpscu	1.1.1	O	-	-	-	-	O	O	O
		FJSVpscu	1.1.1	O	-	-	-	-	O	O	O
		FJSVpscu	1.1.1	O	-	-	-	-	O	O	O
		FJSVpscu	1.1.1	O	-	-	-	-	O	O	O
5	Web-Based Admin View/ WWW Server for Admin View	SUNWvts	5.1	O	O	O	O	O	-	O	O
		SUNWvtsmn	5.1	O	O	O	O	O	-	O	O
		SUNWvtsx	5.1	O	O	O	O	O	-	O	O
		FJSVvts	5.1	O	O	O	O	O	-	O	O
6	Machine Administration	FJSVwvcnf	2.0.3	O	O	O	O	O	-	-	O
		FJSVwvbs	2.1.2	O	O	O	O	O	-	-	O
7	Remort Support	FJSVmasv	2.2.3	O	O	O	O	O	-	-	O
		FJSVmadm	1.2.3	O	O	O	O	O	O	O	O
		FJSVcmnd	2.0		O	O	O	O	O	O	O
		FJSVpmnd	1.2.3	O	-	-	-	-	O	O	O
		FJSVmaom	2.0	O	O	O	O	O	-	-	O
8	Auto Power Control System	FJSVrlib	8.2.2	O	-	-	O	O	O	O	O
		FJSVragt	2.9	O	-	-	O	O	O	O	O
		FJSVrmaos	2.9	O	-	-	O	O	O	O	O
		FJSVrrda	2.9	O	O	O	O	O	O	O	O
		FJSVracm	2.9	O	O	O	O	O	O	O	O
		FJSVsirms	4.0	O	O	O	O	O	O	O	O
		FJSVcmrm	1.6	-	-	-	O	O	O	O	O
		FJSVcmrm2	1.2	-	O	O	-	-	O	O	O
9	Server Default Configuration	FJSVpmrm	1.3	O	-	-	-	-	O	O	O
		FJSVapcs	1.4.0	O	O	O	O	O	-	O	O
9	Server Default Configuration	FJSVapcwv	2.0	O	O	O	O	O	-	-	O
		FJSVdef	1.3.1	O	O	O	O	O	O	O	O
		FJSVssf	2.0.2	O	O	O	O	O	O	O	O
		FJSVpnlx.us	2.1	O	O	O	O	O	O	O	O
		FJSVpnl.us	2.1	O	O	O	O	O	O	O	O
10	System Data Output Tool	FJSVwarn.us	1.3	O	O	O	O	O	O	O	O
10	System Data Output Tool	FJSVsnap	2.6	O	O	O	O	O	O	O	O

No.	Component	Package name	VL	Model					Component Group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
11	Crash Dump Assistant	FJSVdmp	1.5	O	O	O	O	O	O	O	O
12	Auto Dump Analyze Tool	FJSVana	2.1	O	O	O	O	O	O	O	O
13	Reliability Driver	FJSVsec	2.0.2	-	O	O	-	-	O	O	O
14	G-LAN error notification	FJSVgidad.us	2.1.1	O	O	O	O	O	O	O	O
15	HCP	FJSVhcp	1.0	O	-	-	-	-	O	O	O
16	System Parameter Diagnosis	FJSVparam	1.1	O	O	O	O	O	O	O	O
17	HRM-S	FJSVhrm	3.0.0	O	O	O	O	O	-	-	O
18	Tape Driver Configuration Tool	FJSVdcnf	1.2	O	O	O	O	O	O	O	O
19	Patch Information Collect Command	FJSVpmgc	1.0	O	O	O	O	O	O	O	O

*1: NGDR command FJSVdr is installed, but not supported.

B.3 Solaris™ 10 Operating System

B.3.1 PRIMEPOWER (250/450/650/850/900/1500/2500)

No.	Component	Package name	VL	Model					Component group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.0	O	O	O	O	O	O	O	O
2	NGDR Command	FJSVdr	1.3	-	O	O *1	-	-	O	O	O
3	SCF Driver	FJSViomp	2.3	O	O	O	O	O	O	O	O
		FJSVscd3	1.3	-	O	O	O	O	O	O	O
		FJSVscr3	1.3.1	-	O	O	O	O	O	O	O
		FJSVscu3	1.3.1	-	O	O	O	O	O	O	O
		FJSVscuj3	1.3	-	O	O	O	O	O	O	O
		FJSVpscd	1.1	O	-	-	-	-	O	O	O
		FJSVpscr	1.1	O	-	-	-	-	O	O	O
		FJSVpscui	1.1.1	O	-	-	-	-	O	O	O
		FJSVpscuj	1.1	O	-	-	-	-	O	O	O
4	SunVTS,FJVTs	SUNWvts	5.1	O	O	O	O	O	-	O	O
		SUNWvtsmn	5.1	O	O	O	O	O	-	O	O
		SUNWvtsx	5.1	O	O	O	O	O	-	O	O
		FJSVvts	5.1	O	O	O	O	O	-	O	O
5	Web-Based Admin View/ WWW Server for Admin View	FJSVwvcnf	2.0.3	O	O	O	O	O	-	-	O
		FJSVwvbs	2.1.2	O	O	O	O	O	-	-	O
6	Machine Administration	FJSVmasv	2.2.3	O	O	O	O	O	-	-	O
		FJSVmadm	1.2.3	O	O	O	O	O	O	O	O
		FJSVcmnd	2.0		O	O	O	O	O	O	O
		FJSVpmnd	1.2.3	O	-	-	-	-	O	O	O
		FJSVmaom	2.0	O	O	O	O	O	-	-	O
7	Remote Support	FJSVrlib	8.2.2	O	-	-	O	O	O	O	O
		FJSVragt	2.9	O	-	-	O	O	O	O	O
		FJSVrmaos	2.9	O	-	-	O	O	O	O	O
		FJSVrrda	2.9	O	O	O	O	O	O	O	O
		FJSVracm	2.9	O	O	O	O	O	O	O	O
		FJSVsirms	4.0	O	O	O	O	O	O	O	O
		FJSVcmrm	1.6	-	-	-	O	O	O	O	O
		FJSVcmrm2	1.2	-	O	O	-	-	O	O	O
		FJSVpmrm	1.3	O	-	-	-	-	O	O	O
8	Auto Power Control System	FJSVapcs	1.4.0	O	O	O	O	O	-	O	O
		FJSVapcwg	2.0	O	O	O	O	O	-	-	O

No.	Component	Package name	VL	Model					Component group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
9	Server Default Configuration	FJSVdef	1.4	O	O	O	O	O	O	O	O
		FJSVssf	3.0.1	O	O	O	O	O	O	O	O
		FJSVpnl.us	3.0	O	O	O	O	O	O	O	O
		FJSVwarn.us	2.0.1	O	O	O	O	O	O	O	O
10	System Data Outoput System	FJSVsnap	2.6	O	O	O	O	O	O	O	O
11	Crash Dump Assistant	FJSVdmp	1.5	O	O	O	O	O	O	O	O
12	Auto Dump Analyze Tool	FJSVana	2.1	O	O	O	O	O	O	O	O
13	Reliability Driver	FJSVsec	3.0	-	O	O	-	-	O	O	O
14	G-LAN error notification	FJSVgidad.us	2.2.1	O	O	O	O	O	O	O	O
15	HCP	FJSVhcp	1.0	O	-	-	-	-	O	O	O
16	System Parameter Diagnosis	FJSVparam	1.1	O	O	O	O	O	O	O	O
17	HRM-S	FJSVhrm	3.0.0	O	O	O	O	O	-	-	O
18	Tape Driver Configuration Tool	FJSVdcnf	1.2	O	O	O	O	O	O	O	O
19	Patch Information Collect Command	FJSVpmgc	1.0	O	O	O	O	O	O	O	O

*1: NGDR command FJSVdr is installed, but not supported.

B.3.2 SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/ M8000/M9000 (CW/LE)

No.	Component	Package name	VL	Model		Component group		
				CW	LE	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.0	O	O	O	O	O
2	IKPDR Command	FJSVdropl	1.0	O	-	O	O	O
3	SCF/SCSI Fault LED support option	FJSVscfsc	1.0	O	-	O	O	O
4	Machine Administration	FJSVmadm	1.2.3	-	O	O	O	O
		FJSVamadm	1.0.0	O	-	O	O	O
		FJSVamcl	1.0.0	O	-	O	O	O
		FJSVamle	1.0.0	-	O	O	O	O
5	Remote Support	FJSVamrm	1.0	O	-	O	O	O
		FJSVlrm	1.0	-	O	O	O	O
		FJSVrlib	8.2.2	-	O	O	O	O
		FJSVragt	2.9	-	O	O	O	O
		FJSVrmaos	2.9	-	O	O	O	O
		FJSVrrda	2.9	-	O	O	O	O
		FJSVracm	2.9	-	O	O	O	O
		FJSVsirms	4.0	O	O	O	O	O
6	Auto Power Control System	FJSVapcs	1.4.0	O	-	-	O	O
7	Server Default Configuration	FJSVdef	1.4	O	O	O	O	O
		FJSVssf	3.0.1	O	O	O	O	O
8	System Data Output Tool	FJSVsnap	2.6	O	O	O	O	O
9	Crash Dump Assistant	FJSVdmp	1.5	O	O	O	O	O
10	Auto Dump Analyze Tool	FJSVana	2.1	O	O	O	O	O
11	System Parameter Diagnosis	FJSVparam	1.1	O	O	O	O	O
12	HRM-S	FJSVhrmse	3.1.1	O	O	-	-	O
13	Tape Driver Configuration Tool	FJSVdcnf	1.2	O	O	O	O	O
14	Patch Information Collect Command	FJSVpmgc	1.0	O	O	O	O	O

Appendix C Troubleshooting

C.1 Resolution of problems which occur when package is installed

Case1

Refer to Appendix C.1.1 when the following messages are displayed while installing.

```
esfadd: ERROR: Two or more instances of the following package(s) are existing on the
system.
package_name package_name.2
Exit installation.
```

Case2

Refer to Appendix C.1.2 when the following messages are displayed while installing.

```
A version of the <pkginst> package is already installed on this machine.
Current administration ds not allow new instances of an existing package to be created,
nor existing instances to be overwritten.

No changes were made to the system.
esfadd: ERROR: Installation of packages failed.
```

Case3

Refer to Appendix C.1.3 when the following messages are displayed while installing.

```
# esfadd<Return>
:
:
Installation of <pkginst> failed (error).
esfadd: ERROR:Installation of packages failed.
```

Case4

Refer to Appendix C.1.4 when the following messages are displayed while installing.

```
#esfadd
:
esfadd: Error: Use of cron is not permitted. root and adm users have not been set up.
```

Case5

Refer to Appendix C.1.5 when the following messages are displayed while deleting the package.

```
# esfadd<Return>
:
:
Removed of <pkginst> failed.
esfadd:ERROR:Removed of packages failed.
```

C.1.1 Resolution of problems which occur when package is installed (I).

If the following message is displayed during installation, and the installation terminates abnormally, use the following solution.

```
esfadd: ERROR: Two or more instances of the following package(s) are existing on the
system.
package_name package_name.2

Exit installation.
```

Problem Cause

This message will be displayed when multiple instances of a particular package have already been installed on this system. Please execute the following procedures as the corrective action.

Solution

1. If an environment setting file exists for the package where the problem occurred, save the environment setting file. (Refer to Section 5.3.4, "Saving the environment setting file.")
2. Check the version of the package where the problem occurred.

```
# pkginfo -x package_name.* <Return>
```
3. Remove all packages where the problem has occurred.

```
# pkgrm package_name.* <Return>
```
4. If the version of the problem package is later than that provided in the software, install the later version of the package.
5. Go on to the procedures in Section 5.3, "Update Installation."
6. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

C.1.2 Resolution of problems which occur when package is installed (II).

If the following message is displayed during installation, and the installation terminates abnormally, use the following solution.

```
A version of the <pkginst> package is already installed on this machine.
Current administration ds not allow new instances of an existing package to be created,
nor existing instances to be overwritten.

No changes were made to the system.

esfadd: ERROR: Installation of packages failed.
```

Problem Cause

This message will be displayed when the <pkginst> package installation fails. In particular, this message will be displayed when multiple instances of the <pkginst> package have already been installed on the system.

Execute the following procedure as the correction action.

Attention: Depending on the state of the system, this message might be displayed in addition to other display causes.

Therefore, you need to confirm whether there are other abnormalities, before proceeding.

Solution

1. If an environment setting file exists for the package where the problem occurred, save the environment setting file. (Refer to Section 5.3.4, "Saving the environment setting file" for details.)
2. Check the version of the package where the problem occurred.

```
# pkginfo -x package_name.* <Return>
```
3. Remove all of the packages where problems occurred.

```
# pkgrm package_name.* <Return>
```
4. Remove the FJSVbse package.

```
# pkgrm FJSVbse <Return>
```
5. If the version of the problem package is later than the one provided in the software, install the later version of the package.
6. Go on to the procedures in Section 5.3, "Update Installation."
7. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

C.1.3 Resolution of problems which occur when package is installed (III).

If the following message is displayed during installation, and the installation terminates abnormally, use the following solution.

```
# esfadd<Return>
:
:
Installation of <pkginst> failed (error).
esfadd: ERROR:Installation of packages failed.
```

Problem Causes

This message will be displayed when the *<pkginst>* package installation fails. In particular, the message will be displayed if the software was installed under the following situations.

1. Lack of disk space (Refer to Section 3.1.1, "Disk requirements").
2. If using NFS to mount the CD-ROM drive on the system prior software installation, the options on the NFS mount are not appropriately specified.
3. The operator has executed procedures other than those described in the Installation Guide.

Attention: Depending on the state of the system, this message might be displayed for other reasons than those mentioned above. Therefore, you need to confirm whether there are other abnormalities before proceeding.

Solution

1. If an environment setting file exists for the package where the problem occurred, save the environment setting file. (Refer to Section 5.3.4, "Saving the environment setting file" for details.)
2. Remove package where problem occurred.

```
# pkgrm package_name <Return>
```
3. Remove the FJSVbse package.

```
# pkgrm FJSVbse <Return>
```
4. Go on to the procedures in Section 5.3, "Update Installation."
5. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

Attention:

Even if the FJSVbse package is removed according to procedure3, the /opt/FJSVbse directory might not be deleted. However, this will not cause any operational problems.

C.1.4 Resolution of problems which occur when package is installed (IV).

If the following message is displayed during installation, and the installation terminates abnormally, use the following solution.

```
#esfadd
:
esfadd: ERROR: use permission of cron was not set up.(root,adm) was not set up.
```

Problem Causes

This message is displayed when root user and adm user are not allowed to use cron on your system.

Attention: If you have installed the Logical Domains Manager prior to this software, this message is displayed. This is because the Solaris Security Toolkit included in the Logical Domains Manager changes the cron settings.

Solution

Before installing this software, set up the root and adm users so they can use cron.

Please take the steps below if you have installed the Logical Domains Manager prior to this software.

- 1) Copy the `/etc/cron.d/cron.allow` file before changing the cron settings.
- 2) Add root user and adm user to the `/etc/cron.d/cron.allow` file.
- 3) Install this software.
- 4) Restore the `/etc/cron.d/cron.allow` file you copied.

C.1.5 Resolution of problems, which occurred when package is installed (V).

If the following message is displayed during package removal, and the removal terminates abnormally, use the following solution.

```
# esfadd<Return>
:
:
Removed of <pkginst> failed.
esfadd:ERROR:Removed of packages failed.
```

Problem Causes

This message will be displayed when the <pkginst> package removal fails. In particular, this message will be displayed if:

1. The <pkginst> package has dependence with other package(s).
2. The installed package instance has broken.
3. The operator executed procedures other than those described in the Installation Guide.

Attention: Depending on the state of the system, this message might be displayed in addition to others. Therefore, you need to confirm whether there are other abnormalities before proceeding.

Solution

1. If an environment setting file exists for the package where the problem occurred, save the environment setting file. (Refer to Section 5.3.4, "Saving the environment setting file" for details.)
2. Remove package where problem occurred.

```
# pkgrm package_name <Return>
```
3. Remove the FJSVbse package.

```
# pkgrm FJSVbse <Return>
```
4. Go on to the procedures in Section 5.3, "Update Installation."
5. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

Attention:

Even if the FJSVbse package is removed according to procedure3, the /opt/FJSVbse directory might not be deleted. However, this will not cause any operational problems.

C.2 Resolution of problems which occur when package was removed

Case1

Refer to Appendix C.2.1 when the following messages are displayed while deleting the package.

```
esfrm: ERROR: Two or more instances of the following package(s) are existing on the system.  
package_name package_name.2  
  
Exit installation.
```

C.2.1 Resolution of problems, which occurred when package was removed (I).

If the following message is displayed during software removal, and the remove terminates abnormally, use the following solution.

```
esfrm: ERROR: Two or more instances of the following package(s) are existing on the system.  
package_name package_name.2  
  
Exit installation.
```

Problem Cause

This message will be displayed if multiple instances of a particular package have been installed on the system. Please execute the following procedures as the corrective action.

Solution

1. Remove package where problem occurred.

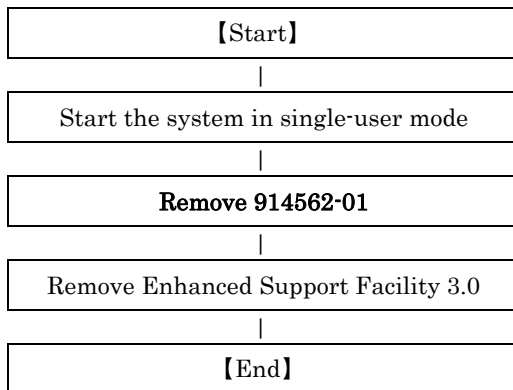
```
# pkgrm package_name.* <Return>
```

2. Go on to step 9 provided in Section 5.4.1, "Removing the software."

C.2.2 Resolution of problems, which occurred when package was removed (II).

If you execute 'esfrm' on Solaris 10 OS with Patch 914562-01 installed, the removal of Enhanced Support Facility 3.0 fails.

Please follow the steps below when you remove Enhanced Support Facility 3.0.



Problem Causes

Service provided by a dump assistant is running.

Solution

If you performed the removal of Enhanced Support Facility 3.0 without removing Patch 914562-01 and failed, please follow the steps below for recovery.

1. Stop services provided by the Crash Dump Assistant package.

```
# svcadm disable svc:/system/fjsvdmpsnap:default <Return>
# svcadm disable svc:/system/fjsvdmpadm:default <Return>
```

2. Confirm the services are not running.

[Example of execution]

```
# svcs -a | grep svc:/system/fjsvdmp <Return>
disabled          22:10:46 svc:/system/fjsvdmpsnap:default
disabled          22:10:47 svc:/system/fjsvdmpadm:default
```

3. Re-execute the removal command (esfrm) of Enhanced Support Facility.

```
# cd /cdrom/cdrom0 <Return>
# bin/esfrm <Return>
```

C.3 When the patches fail to be applied

See the README in the patch directory for patch information.

1. The following messages will be displayed when applying of the patch was failed.

a. when no applicable packages exist

(xxxxxx-xx is patch ID)

```
One or more patch packages included in
xxxxxx-xx are not installed on this system.
WARNING: Skipping patch xxxxxx-xx
```

or

```
None of the packages included in patch xxxxxx-xx
are installed on this system.
WARNING: Skipping patch xxxxxx-xx
```

If these messages are displayed, packages that would be corrected by the patch have not been installed on the system. Please check the environment of the system.

If you installed the software by specifying a component group that excluded the package being corrected, this message will be displayed. but in that case, there is no problem.

b. when the patch has already been applied

```
Patch xxxxxx-xx has already been applied.
See patchadd(1M) for instructions.
WARNING: Skipping patch xxxxxx-xx
```

If this message is displayed, the patch has already been applied to the system.

If you are doing an update installation of this software, this is not a problem

Execute the following procedures to apply the patch again

1) Remove the FJSVbse package.

```
# pkgrm FJSVbse <Return>
```

2) Go on to the procedures in Section 5.2.3, "Installing Enhanced Support Facility."

Appendix D Notes

D.1 Mounting the CD-ROM

D.1.1 PRIMEPOWER900/1500/2500

- 1) Mount the CD-ROM.

```
# mkdir -p /cdrom <Return>
# /usr/sbin/mount -F nfs -o ro,vers=2 host:/cdrom/cdrom0 /cdrom <Return>
```

"host" denotes the host name of the system console.

- 2) Move to the directory of the CD-ROM.

```
# cd /cdrom <Return>
```

D.1.2 PRIMEPOWER250/450/650/850

D.1.2.1 Solaris 8 OS

- 1) Start volume management, and insert the Enhanced Support Facility 3.0 CD-ROM disk into the CD-ROM drive.

```
# /etc/init.d/volmgt start <Return>
Volume management starting
```

- 2) Move to the directory of the CD-ROM.

```
# cd /cdrom/cdrom0 <Return>
```

D.1.2.2 Solaris 9 OS or Solaris 10 OS

- 1) Stop the volume manager.

```
# /etc/init.d/volmgt stop <Return>
```

- 2) Create a mount destination directory for the CD-ROM. If such a directory already exists, another directory need not be created.

```
# mkdir /cdrom/cdrom0 <Return>
```

- 3) Mount the CD-ROM. Specify the CD-ROM device to be used in <CDROM_DEVICE>.

```
# /usr/sbin/mount -F hsfs /dev/dsk/<CDROM_DEVICE> /cdrom/cdrom0 <Return>
```

- 4) Move to the directory of the CD-ROM.

```
# cd /cdrom/cdrom0 <Return>
```

The CD-ROM can be referenced after the above work is completed.

D.1.3 SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000

D1.3.1 Using a built-in DVD drive

The mainframe internal DVD drive is implemented in the SPARC Enterprise T2000/T5120/T5220/M4000/M5000/M8000/M9000.

If you use SPARC Enterprise T2000/T5120/T5220 internal DVD drive and SPARC Enterprise M4000/M5000/M8000/M9000 domain allocated internal DVD drive, you can mount a CD-ROM in the following procedure.

Regarding allocation of DVD drive to a domain, please refer to "SPARC Enterprise M4000/M5000/M8000/M9000 Server Administration Guide" by visiting the following URL.

<http://www.fujitsu.com/sparcenterprise/manual/>

- 1) Stop Volume Manager.

```
# etc/init.d/volmgt stop <Return>
```

- 2) Create the mount destination directory of a CD-ROM. However, if the directory already exists, you don't have to create it.

```
# mkdir /cdrom/cdrom0 <Return>
```

- 3) Mount the CD-ROM. Specify a DVD drive for <DVD-DEVICE>.

```
# /usr/sbin/mount -F hsfs /dev/dsk/<DVD_DEVICE> /cdrom/cdrom0 <Return>
```

- 4) Move to the directory of the CD-ROM.

```
# cd /cdrom/cdrom0 <Return>
```

The CD-ROM becomes visible after completing the above steps.

D1.3.2 Mounting a CD-ROM of an installation server

Please follow these steps to mount the CD-ROM inserted into a CD-ROM/DVD drive of the installation server.

- 1) In case you want to network mount the CD-ROM.

Add the following line to the /etc/rmmount.conf file in the install server.

```
share cdrom* -o ro,anon=0
```

- 2) Mount a CD-ROM.

```
# mkdir -p /cdrom <Return>
# /usr/sbin/mount -F nfs -o ro,vers=2 host:/cdrom/cdrom0 /cdrom <Return>
```

The 'host' represents the host name of an installation server.

- 3) Move to the directory of the CD-ROM.

```
# cd /cdrom <Return>
```

D.2 Solaris network installation using DHCP service

If network installation is performed using DHCP service, the system behaves as a DHCP client. Enhanced Support Facility should be installed after the system is configured to use a static IP address.

Note:

Network installation using DHCP is supported for Solaris 9, 10 only. Please refer to Hardware Platform Guide for more information about DHCP support on PRIMEPOWER system.

If Enhanced Support Facility is installed while the system is running as a DHCP client, the following symptoms may occur.

- Web-Based Admin View

Symptom: The following messages are displayed on the client system and Web-Based Admin View does not work correctly.

```
0005 Cannot connect to Management Server. Do you want to re-connect?
```

Recommended action: After configuring the system to use a static IP address, modify the IP address configuration of Web-Based Admin View. See Section 6.1, "Changing an IP Address on the Public LAN" in Web Based Admin View Operation Guide for more details.

- Remote support

Influence: Reporting using Point-to-Point (PtoP) connection (ISDN) cannot be performed.

Recommended action: After configuring the system to use a static IP address, please request a service engineer to change the setting of the router for REMCS PtoP (ISDN) connection.

D.3 Notes on FJVTS

D.3.1 Notes under Solaris 10 installation

Do not install the SunVTS (Sun Validation Test Suite) when you install Solaris 10.

[Screen view (Example)]

```
- Select Products -----
Select the products you would like to install.

V [ ] Solaris 10 Extra Value Software..... 0.00 MB
  [ ]   Sun Validation Test Suite 6.0..... 68.46 MB
  [ ]   Sun Install Check 2.0.2..... 16.21 MB
  [ ]   SRS Net Connect 3.1..... 42.59 MB
> [ ] Solaris 10 Documentation..... 0.00 MB
> [ ] Java Enterprise System..... 0.00 MB
> [ ] Solaris Software Companion CD..... 0.00 MB

Press Return to hide components
-----
Esc-2_Continue   F3_Go Back     Esc-4_Product Info   F5_Exit   F6_Help
```

* Do not install the SunVTS here. Otherwise, the FJVTS installed later will fail to run.

[Example of failure in start of the FJVTS]

```
# /opt/FJSVvts/bin/fjvts
Now, FJVTS system is under construction.
Apr 20 14:58:20 katana SunVTS6.0: entry = .customtest
Apr 20 14:58:20 katana SunVTS6.0: entry = .customtest_OtherDevices
Apr 20 14:58:21 katana SunVTS6.0: dlopen() for probe shared library ../../lib/probe/sparcv9/jnifctest_probe.so failed. ld.so.1: ./vtsk: fatal: relocation error: file ../../lib/probe/sparcv9/jnifctest_probe.so: symbol vts_set_test_concurrency: referenced symbol not found

sunvts: Can't start vtsk properly. Stop.
#
```

D.3.2 Action at the FJVTS failure

Take the following steps to solve the problem.

- 1) Stop the FJVTS related processes.
Kill whole the FJVTS related processes with the command below.
[Example]

```
# ps -ef | grep -v grep | grep vts <Return>
root 3416 1 0 15:01:41 ? 0:00 ./vtsk
# kill -KILL 3416 <Return>
```

- 2) Save the environment setting file.
Save the environment setting file, using the procedures in Section 5.3.4, "Saving the environment setting file."
- 3) Remove packages related to the SunVTS/FJVTS.
Execute the following command.

```
# pkgrm FJSVvts SUNWvtsx SUNWvts SUNWvtsr SUNWvtsmn SUNWvts <Return>
```

* Continue the removal of the package with "y", though you may see the following messages.

```
The following products depend on the package:

ID                               Name
-----
XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX XXXXXXX
XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX XXXXXXX
XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX XXXXXXX

Do you want to continue with the removal of this package [y,n,?,q] y <Return>
```

- 4) Remove the FJSVbse package.
Execute the following command.

```
# pkgrm FJSVbse <Return>
```

*It is not necessary to delete other packages.

- 5) Reinstall Enhanced Support Facility.
Go to the single user mode. Then go on to the procedures in Section 5.2.3, "Installing Enhanced Support Facility."
- 6) Restore the saved environment setting file.
Restore the saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

Appendix E Bundled Drivers

The following drivers are bundled with this product.

- FUJITSU PCI GigabitEthernet 3.0
- FUJITSU ULTRA LVD SCSI Host Bus Adapter Driver 2.0

In case of SPARC Enterprise T1000/T2000/T5120/T5220/M4000/M5000/M8000/M9000, after the installation of Enhanced Support Facility is finished successfully, the following message appears and the installation of the drivers starts.

```
Installation of the bundled driver starts.
```

[Notes]

Even if Enhanced Support Facility is removed, the above drivers are not removed from the system.

