

Enhanced Support Facility 3.1 INSTALLATION GUIDE for Solaris™ Operating System

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Preface

■ Purpose

This document describes the procedure for installing this product and performing the environment settings. This product supports the combination of the following machine models and Solaris™ operating system (hereinafter referred to as Solaris OS).

- Models
 - SPARC Enterprise
 - PRIMEPOWER250/450/650/850/900/1500/2500
- Solaris OS
 - 8, 9, 10

This product does not support the combination of the following machine models and Solaris OS. Enhanced Support Facility 2.6 is available for these models.

- Models
 - PRIMEPOWER1/100/200/400/600/800/1000/2000
 - GP7000F Model 200/200R/400/400R/400A/600/600R/1000/2000
- Solaris OS
 - 2.6, 7, 8, 9, 10

■ 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 OS.

■ Organization

This document is organized as follows:

Chapter 1 Program Components

Programs composing the system are described.

Chapter 2 Online Manuals

Online manuals related to this product are described.

Chapter 3 Operating Environment

Operational environment of this product is described.

Chapter 4 Restrictions and Notes

Restrictions and notes are described.

Chapter 5 Installation

Installation of this product is described.

Chapter 6 Extended Installation

Extended installation of this product is described.

Appendix

The Appendix explains supplementary items.

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■ Notations Used

In this document, the following names, abbreviated names are used.

Manual names

- This manual itself is referred to as "this manual".

- Any manual for this product is sometimes referred to by omitting "Enhanced Support Facility" at beginning of the formal name and supported server models at the end of the formal name.

"User's Guide for Machine Administration", or "User's Guide for REMCS" is one of such examples.

Example: Enhanced Support Facility User's Guide for SCF Driver (PRIMEPOWER)

→ User's Guide for SCF Driver

Abbreviation

In this document, the formal names of the products below are abbreviated as follows:

Formal name	Abbreviation
SPARC Enterprise M3000/M4000/M5000/M8000/M9000	SPARC Enterprise M series
SPARC Enterprise T1000/T2000/T5120/T5140/T5220/T5240/T5440	SPARC Enterprise T series

In this document, abbreviated names are used for supported machine models.

The following shows the relation between the abbreviated names and platforms.

Model name	Abbreviation	Platform
SPARC Enterprise T1000/T2000/T5120/T5140/T5220/T5240/T5440	LE	SUNW, SPARC-Enterprise-T1000 SUNW, SPARC-Enterprise-T2000 SUNW, SPARC-Enterprise-T5120 SUNW,T5140 SUNW,SPARC-Enterprise-T5220 SUNW,T5240 SUNW,T5440
SPARC Enterprise M3000/M4000/M5000/M8000/ M9000	CW	SUNW, SPARC-Enterprise
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

Other abbreviated names

Hereinafter, System Control Facility driver is abbreviated as SCF driver in this document.

Hereinafter, System Control Facility hardware is abbreviated as SCF.

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 3.0A20
4	March 07, 2008	Manuals & Patches 3.0A30 <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.
5	April 15, 2008	Enhanced Support Facility 3.0.1 <ul style="list-style-type: none"> - Added SPARC Enterprise T5140/T5240.
6	June 05, 2008	Enhanced Support Facility 3.1 <ul style="list-style-type: none"> - Added SPARC Enterprise M3000. - Web-Based Admin View ,FJSVmasv.and FJSVapcwv are deleted.
7	May 24, 2009	Enhanced Support Facility 3.1 <ul style="list-style-type: none"> - Added SPARC Enterprise T5440.
8	February,18,2010	Manuals & Patches 3.1A10

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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".

Table 1-1 Component Programs List

No.	Component	Package	VL	Function
1	Enhanced Support Facility Information Management	FJSVbse	3.1	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	FJSViom FJSVscd3 FJSVscr3 FJSVscu3 FJSVscuj3 FJSVpscd FJSVpscr FJSVpscuj FJSVpscuj	2.3 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	Machine Administration	FJSVmadm FJSVcmnd FJSVpmnd FJSVamadm FJSVamcl FJSVamle FJSVmaom	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
7	Remote Support	FJSVrlib FJSVragt FJSVrmaos FJSVrrda FJSVracm FJSVsirms FJSVcmrm FJSVcmrm2 FJSVpmm FJSVamrm FJSVlmm	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.
8	Auto Power Control System	FJSVapcs	1.4.2	Automatic powering on or off of main cabinet power to a specified schedule.
9	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.
10	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.
11	Crash Dump Assistant	FJSVdmp	1.6	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.
12	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).
13	Reliability Driver	FJSVsec	1.2.2 2.0.2 3.0	Serial port driver
14	G-LAN error notification	FJSVgidad.us	2.0.1	GigabitEthernet interface error notification function.
15	G-LAN MTU setting	FJSVgidr.us	2.0.0	The script to set MTU changes when using JumboFrame for GigabitEthernet interface.
16	HCP	FJSVhcp	1.0	XSCF firmware and utility

No.	Component	Package	VL	Function
17	System Parameter Diagnosis	FJSVparam	1.1	System Parameter Diagnosis detects and reports system settings that may interfere with normal operation of the Solaris OS, which may therefore change the settings.
18	HRM-S	FJSVhrm FJSVhrmse	3.4.1 3.4.1	HardwareResourceMonitor (referred to as HRM, in this document) is a maintenance work support tool.
19	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.
20	Patch Information Collect Command	FJSVpmgc	1.1	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.
21	Console flow control canceller	FJSVcflw	1.0	Console flow control canceller

Chapter 2 Online Manuals

2.1 Manuals Related to Enhanced Support Facility

These manuals are stored in both Enhanced Support Facility 3.1 DVD/CD and Manuals & Patches DVD/CD as PDF files.

The latest online manuals are included in the Manuals & Patches DVD/CD, therefore if the Manuals & Patches DVD/CD is accompanied, please refer to the manuals on it.

Table 2.1-1 Enhanced Support Facility-related Manuals List

No.	Manual title	File name	Explanation
1	Enhanced Support Facility 3.1 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.

Table 2.1-2 Enhanced Support Facility User's Guide List

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	System Parameter Diagnosis 1.1 User's Guide	param_ome.pdf	Explains the system parameter diagnosis for detecting system-setting errors.
7	Tape driver configuration tool 1.2 Update2 User's Guide	dcnf_ome.pdf	Explains the function that automatically sets a tape driver definition.

No.	Manual title	File name	Explanation
8	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.
9	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.
10	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.
11	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.
12	Enhanced Support Facility User's Guide for PCI Hot Plug (PRIMEPOWER)	phpug_ome.pdf	Explains the PCI Hot Plug function in detail.
13	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.
14	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 M series.

Each manual is deployed in the following directories on the Enhanced Support Facility 3.1 DVD/CD and Manuals & Patches DVD/CD.

English manuals: /cdrom/cdrom0/manual.pdf/english/

2.2 Referencing Methods

The Enhanced Support Facility 3.1 DVD/CD and Manuals & Patches DVD/CD include manuals formatted in PDF.

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. Using a PC

1) Insert the DVD/CD disk into the DVD/CD drive.

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

Example: Referencing the Installation Guide (English)

```
DVD/CDdrive:\MANUAL.PDF\ENGLISH\INSTALL_GUIDE_OME.PDF
```

2.2.2 Using a Solaris OS

1) Insert the DVD/CD disk into the DVD/CD drive.

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

Example: Referencing the Installation Guide (English)

```
/cdrom/cdrom0/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

3.1.1 Basic Software prerequisites

For SPARC Enterprise, no Basic Software is required.

The following table shows Basic Software necessary to use this software on PRIMEPOWER.

Table 3.1-1 Basic Software List

No.	Name of Basic Software	Remarks
1	<p>Solaris 8</p> <p>The following packages are required.(Notes)</p> <p>SUNWbtool, SUNWcslx, SUNWtltk, SUNWxwice,SUNWdtcor,SUNWctpls, SUNWesu, SUNWxwfont, SUNWxilrl, SUNWtoo, SUNWxildh, SUNWxwrtl, SUNWscpu, SUNWlibC, SUNWocfr, SUNWlpmmsg, SUNWpcr, SUNWpcu, SUNWppm, SUNWpsf, SUNWpsr, SUNWpsu, SUNWmp, SUNWxcu4, SUNWdoc, SUNWipe, SUNWipcx, SUNWlibCx, SUNWmfrun, UNWxilow, SUNWj2rt, SUNWocf, SUNWxwplt, SUNWxwcf, SUNWxwopt, SUNWjvrt, SUNWaudio, SUNWolrte, UNWdtbas, SUNWjvjit, SUNWtdte, UNWtdmnm, 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. <p>Note1: 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.</p> <p>Note2: SUNWdrr, and SUNWdrrx are required only for PRIMEPOWER 900/1500/2500.</p>
2	<p>Solaris 9</p> <p>The following packages are required.(Notes)</p> <p>SUNWbtool, SUNWcslx, SUNWtltk, SUNWxwice, SUNWdtcor, SUNWctpls, SUNWesu, SUNWxwfont, SUNWxilrl, SUNWtoo, SUNWxildh, SUNWxwrtl, SUNWscpr, SUNWscpu, SUNWlibC, SUNWxcu4, SUNWdoc, SUNWipe, SUNWlibCx, SUNWmfrun, SUNWxilow, SUNWcpp, SUNWzlib, SUNWxwplt,SUNWxwcf, SUNWxwopt, SUNWolrte, SUNWdtbas, SUNWj3rt, SUNWj3irt,SUNWdrr.us, SUNWdrrx.us, SUNWcar, SUNWkvm, SUNWxi18n, SUNWlccom,SUNWeurf, SUNWxwacx, SUNWi2rf, SUNWi4rf, SUNWi5rf, SUNWi7rf,</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. <p>Note1: 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> <p>Note2: SUNWdrr.us, and SUNWdrrx.us are required only for PRIMEPOWER900/1500/2500.</p>

No.	Name of Basic Software	Remarks
	SUNWi8rf, SUNWi9rf, SUNWi15rf, SUNWarrf, SUNWkxmft, SUNWcxmft, SUNW5xmft, SUNWtxfnt, SUNWeuodf, SUNWjxmft, SUNWjxcft, SUNWjxplt SUNWlxml, SUNWlxmlx, SUNWzlibx, SUNWgss, SUNWfns, SUNWgssc, SUNWgssx, SUNWfnsx, SUNWxwplx, SUNWxwicx, SUNWcpc, SUNWcpcu, FJSVcpc	
3	Solaris 10 The following packages are required.(Notes) SUNWbtool, SUNWtltk, SUNWxwice, SUNWdteor, SUNWctpls, SUNWesu, SUNWxwfnt, SUNWxilrl, SUNWtoo, SUNWxildh, SUNWxwrtl, SUNWscpr, SUNWscpu, SUNWlibC, SUNWxcu4, SUNWdoc, SUNWipe, SUNWmfrun, SUNWxilow, SUNWcpp, SUNWzlib, SUNWxwplt, SUNWxwcft, SUNWxwopt, SUNWolrte, SUNWdtbas, SUNWj3rt, SUNWj3irt, SUNWdrr.us, SUNWear, SUNWkvm, SUNWxi18n, UNWlccom, SUNWeurf, SUNWxwacx, SUNWi2rf, SUNWi4rf, SUNWi5rf, SUNWi7rf, SUNWi8rf, SUNWi9rf, SUNWi15rf, SUNWarrf, SUNWkxmft, SUNWcxmft, SUNW5xmft, SUNWtxfnt, UNWeuodf, SUNWjxmft, SUNWjxcft, SUNWjxplt, SUNWlxml, SUNWgss, SUNWgssc, SUNWcpc, SUNWcpcu, SUNWxwpl	Note1: 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. Note2: SUNWdrr.us is required only for PRIMEPOWER 900/1500/2500.

3.1.2 Software requirements

None

3.1.3 Excluded software

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

Table 3.1.3-1 Incompatible Software

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

3.1.4 Patch requirements

Please be sure to apply the following patches included in Manuals & Patches 3.1A10.

Machine model names in the following table are abbreviated names. For more information, please refer to "Notations Used" in "Preface".

Table 3.1.4-1 Table of Manuals & Patches 3.1A10 patches

Patch-ID	Package Name	Solaris OS			Abbreviation				
		10	9	8	LE	CW	PW-P	PW-CL PW-CLZ	PW-CM PW-CMZ
124599-01	SUNWcar.us	0	-	-	-	-	0	0	0
913372-03	FJSVdrcmd	-	-	0	-	-	-	0	-
913732-06	FJSVdr	0	0	-	-	-	-	0	-
914587-02	FJSVdropl	0	-	-	-	0	-	-	-
914575-01	FJSVscu3	0	0	0	-	-	-	0	0
914590-02	FJSVscfsc	0	-	-	-	0	-	-	-
110041-01	SUNWvts SUNWvtsx	-	-	0	-	-	0	0	0
110046-02	SUNWvts SUNWodu	-	-	0	-	-	0	0	0
110047-01	SUNWvts	-	-	0	-	-	0	0	0
114479-11	SUNWvts SUNWvtsx	-	0	-	-	-	0	0	0
912707-01	SUNWvts SUNWvtsx	-	-	0	-	-	0	0	0
914449-01	SUNWvts SUNWvtsx	0	-	-	-	-	0	0	0
914490-02	FJSVcmnd	0	0	0	-	-	-	0	0
914529-05	FJSVpmnd	0	0	0	-	-	0	-	-
914701-02	FJSVrlib	0	-	-	0	-	-	-	-
914603-06	FJSVlrm	0	-	-	0	-	-	-	-
915009-02	FJSVmadm	0	0	0	0	-	0	0	0
914601-04	FJSVmadm	0	0	0	0	-	0	0	0
914604-06	FJSVamle FJSVmadm	0	0	0	0	-	0	0	0
914527-11	FJSVamadm	0	-	-	-	0	-	-	-
914588-01	FJSVamrm	0	-	-	-	0	-	-	-

Patch-ID	Package Name	Solaris OS			Abbreviation				
		10	9	8	LE	CW	PW-P	PW-CL PW-CLZ	PW-CM PW-CMZ
914585-02	FJSVsirms	0	0	0	0	0	0	0	0
914429-01	FJSVdef	0	-	-	0	0	0	0	0
914679-03	FJSVsnap	0	0	0	0	0	0	0	0
915001-02	FJSVsec	-	-	0	-	-	-	0	-
914609-04	FJSVsec	-	0	-	-	-	-	0	-
914610-03	FJSVsec	0	-	-	-	-	-	0	-
914192-03	FJSVparam	0	0	0	0	0	0	0	0
914644-03	FJSVdcnf	0	0	0	0	0	0	0	0
914568-06	FJSVgid.v FJSVgid.u	0	-	-	0	0	-	-	-
914572-08	FJSVulsa.v FJSVulsa.u	0	-	-	0	0	-	-	-

3.1.5 Bundled Patches

The following patches are applied to Enhanced Support Facility 3.1 automatically.

Machine model names in the following table are abbreviated names. For more information, please refer to "Notations Used" in "Preface".

Table 3.1.5-1 Table of Enhanced Support Facility 3.1 patches

Patch-ID	Package Name	Solaris OS			Abbreviation				
		10	9	8	LE	CW	PW-P	PW-CL PW-CLZ	PW-CM PW-CMZ
124599-01	SUNWcar.us	0	-	-	-	-	0	0	0
913372-03	FJSVdrcmd	-	-	0	-	-	-	0	-
913732-06	FJSVdr	0	0	-	-	-	-	0	-
914587-02	FJSVdropl	0	-	-	-	0	-	-	-
914575-01	FJSVscu3	0	0	0	-	-	-	0	0
914590-02	FJSVscfsc	0	-	-	-	0	-	-	-
110041-01	SUNWvts SUNWvtsx	-	-	0	-	-	0	0	0
110046-02	SUNWvts SUNWodu	-	-	0	-	-	0	0	0
110047-01	SUNWvts	-	-	0	-	-	0	0	0
114479-11	SUNWvts SUNWvtsx	-	0	-	-	-	0	0	0
912707-01	SUNWvts SUNWvtsx	-	-	0	-	-	0	0	0
914449-01	SUNWvts SUNWvtsx	0	-	-	-	-	0	0	0
914490-01	FJSVcmnd	0	0	0	-	-	-	-	0
914529-04	FJSVpmnd	0	0	0	-	-	0	-	-
914603-03	FJSVlrm	0	-	-	0	-	-	-	-
914601-02	FJSVmadm	0	0	0	0	-	0	0	0
914604-03	FJSVamle FJSVmadm	0	0	0	0	-	0	0	0
914718-01	FJSVamle	0	-	-	0	-	-	-	-
914527-06	FJSVamadm	0	-	-	-	0	-	-	-
914588-01	FJSVamrm	0	-	-	-	0	-	-	-
914585-01	FJSVsirms	0	0	0	0	0	0	0	0

Patch-ID	Package Name	Solaris OS			Abbreviation				
		10	9	8	LE	CW	PW-P	PW-CL PW-CLZ	PW-CM PW-CMZ
914429-01	FJSVdef	0	-	-	0	0	0	0	0
914679-02	FJSVsnap	0	0	0	0	0	0	0	0
914609-01	FJSVsec	-	0	-	-	-	-	0	-
914610-01	FJSVsec	0	-	-	-	-	-	0	-
914192-02	FJSVparam	0	0	0	0	0	0	0	0
914644-02	FJSVdcnf	0	0	0	0	0	0	0	0
914568-02	FJSVgid.v FJSVgid.u	0	-	-	0	0	-	-	-
914572-06	FJSVulsa.v FJSVulsa.u	0	-	-	0	0	-	-	-

3.2 Hardware Environment

Any of the following hardware is required to use this product.

- Models

SPARC Enterprise

PRIMEPOWER250/450/650/850/900/1500/2500

This product does not support the combination of the following machine models and Solaris OS. Enhanced Support Facility 2.6 is available for these products.

- Models

PRIMEPOWER1/100/200/400/600/800/1000/2000

GP7000F Model 200/200R/400/400R/400A/600/600R/1000/2000

- Solaris OS

2.6, 7, 8, 9, 10

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.

Table 3.3.1-1 Disk Capacity List

No.	Directory	Disk space requirement (in Mbytes)		
		Solaris 8	Solaris 9	Solaris 10
1	Root	3.0	3.0	6.5
2	/usr	1.5	1.5	1.5
3	/var	25.5	48.0	68.5
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.

Table 3.3.2-1 Working Area List

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.

Abbreviated names of machine models are used in the table below. For more information, please refer to "Notations Used" in "Preface".

Table 3.4.1-1 Disk Capacity List

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
7	System Data Output Tool	Location that a user specified or /var/tmp	10.0		When System Data Output Command is executed

3.5 Memory Requirements

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

Table 3.5-1 Memory Capacity List

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	System Data Output Tool	40.0	When System Data Output Command is executed

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.

Table 3.6-1 Swap Capacity List

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	Machine Administration	46.7	Standard use (daemon, GUI menu)
5	Remote Support	4.2	Standard use (daemon)
6	Server Default Configuration	0.5	Normal operation
		0.7	Using the memory error inspection function.
7	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".

Table 4.3-1 Notes List

No.	Component	Description
1	Enhanced Support Facility Information Management	<p>This product does not support the following machine models. Enhanced Support Facility 2.6 is available for these products.</p> <ul style="list-style-type: none"> - PRIMEPOWER1/100/200/400/600/800/1000/2000 - GP7000F Model 200/200R/400/400R/400A/600/600R/1000/2000 <p>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:</p> <pre>esfadd: Error: This product cannot be installed in the non-global zone.</pre> <p>If esfadd -c is executed in the non-global zone, it terminates with the following message:</p> <pre>grep: /var/sadm/system/admin/INST_RELEASE cannot be opened.</pre> <pre>esfadd: Error: The operating system does not support this product.</pre> <p>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".</p> <pre>esfadd: ERROR: use permission of cron was not set up.(root,adm) was not set up.</pre> <p>You cannot install this software onto the System Management Console of PRIMEPOWER900/1500/2500.</p> <p>Old Enhanced Support Facility packages remain at an update installation, but this does not affect the system. These remaining packages cannot work in the system. For more information, please refer to "Appendix D.3 A note when performing an update installation".</p>
2	SCF/SCSI Fault LED support option	<p>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.</p>
3	SCF driver	<p>If you have changed the Shutdown procedure (UPS32 file, FAN file, etc) under the /sbin/FJSVhwr/procedure directory in the cluster environment using SafeCLUSTER/PRIMECLUSTER, the Shutdown procedure is replaced with the Shutdown procedure included in an updated package after executing an Enhanced Support Facility update installation. Please change the Shutdown procedure again after completing the Enhanced Support Facility update installation. You should not backup/restore the Shutdown procedure.</p>

No.	Component	Description
4	SCF driver, Server Default Configuration	<p>The following messages may appear at reboot after the installation of Enhanced Support Facility into PRIMEPOWER in the environment of Solaris 10 OS. If this message is displayed, apply patch 124599-01 or later and reboot the system.</p> <pre> scfctlbrk: ioctl() failed : No such device or address /dev/FJSVhwr/pwrctl2: No such device or address scfwatchdog: No such device or address /dev/FJSVhwr/pwrctl: No such device or address scftimezone: ioctl() failed Sep 18 17:52:42 hostname FJSVapcs: Access SCF error (ioctl:6).</pre>
5	Remote Support	<p>There is a note when using DHCP service. Please refer to "Appendix D.1 Solaris network installation using DHCP service".</p>
6	SunVTS, FJVTS	<p>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.</p> <p>If you use Solaris 10 on PRIMEPOWER, important notes are applicable. Refer to Appendix D.2, "Notes on FJVTS for PRIMEPOWER".</p>
7	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> <pre> DDS4 : PW023DT3, PW023DT4, PW0G3DT1 DAT72: PW023DT5, PW023DT6, PW0R3DT3, PW0G3DT2</pre>
8	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> <pre> Solaris 8 OS 108987-12 version or later: SunOS 5.8: Patch for patchadd and patchrm Solaris 9 OS 112951-01 version or later: SunOS 5.9: patchadd and patchrm Patch</pre> <p>If the above patch is not applied, executing this command will cause the system to shut down after displaying the following message:</p> <pre> ERROR: fjcollect: Command execution failed: /usr/sbin/patchadd</pre>
9	Auto Power Control System	<p>Under the following conditions, messages are output to the console, but you can ignore the messages.</p> <ol style="list-style-type: none"> In case of SPARC Enterprise M3000/M4000/M5000/M8000/M9000 or PRIMEPOWER 900/1500/2500. In case of rebooting in single user mode. <pre> FJSVapcs: cron may not be running - call your system administrator FJSVapcs: Cannot register a cron job.</pre>

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 Procedure")

Update installation (5.3, "Update Installation")

Deletion (5.4, "Removing Enhanced Support Facility ")

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 Enterprise T5120/T5140/T5220/T5240/T5440.

For more information on the Logical Domains Manager, control domain, guest domain, please refer to "Logical Domains Guide".

Extended installation

Installation in this mode requires option commands.

Chapter 6 explains the following procedures:

Table 5-1 Advanced Installation List

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

5.1.1 For SPARC Enterprise T series, M series and PRIMEPOWER250/450/650/850

Use the DVD/CD drive equipped in the main unit to install the Enhanced Support Facility.

SPARC EnterpriseT1000 are not equipped with internal DVD/CD.

You need to install Enhanced Support Facility using the DVD/CD drive of the installation server.

- For initial installation, see Section 5.2, "Installation Procedure".
- 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 Enterprise T5120/T5140/T5220/T5240/T5440 To install Enhanced Support Facility in the guest domain, you need to network mount the DVD/CD drive of the installation server.

To use the DVD/CD drive of the installation server, please refer to "Appendix F Mounting the DVD/CD".

5.1.2 For PRIMEPOWER900/1500/2500

To install the Enhanced Support Facility on PRIMEPOWER800/900/1000/1500/2000/2500 and GP7000F Models 1000/2000, use the DVD/CD 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 initial installation, see Section 5.2, "Installation Procedure".
- If an old version of Enhanced Support Facility is already installed, see Section 5.3, "Update Installation".

5.2 Installation Procedure

5.2.1 Important Notes Before the Installation

Table 5.2.1-1 Important Notes List

Single user mode	You need to install this product in single user mode.
Mounting the file system	This product is installed into '/opt'. If '/opt' is another file system, '/opt' is not mounted in single user mode. Therefore please be sure to mount '/opt' with mountall -l before installing this product.
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.</p> <p>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 "Logical Domains Guide".</p> <p>Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.</p>

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 Instructions

- 1) Insert Enhanced Support Facility 3.1 DVD/CD into the DVD/CD 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>
```

If you are prompted like below, please select "o".

```
r) reboot, o) k prompt, h) alt? o
```

- 5) Boot the system in single-user mode.

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

When the following message is displayed, enter the password.

For Solaris 10

```
Requesting System Maintenance Mode  
SINGLE USER MODE  
  
Root password for system maintenance (control-d to bypass): password <Return>
```

For Solaris 9 or older

```
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>
```

Note) If there are some file systems (/opt) which are not mounted by the 'mountall -l' command while you are making preparations for the patch application, please mount them by the mount(1M) command one by one.

Case A When Solaris 10 6/06 or later uses ZFS

Mount the required file system.

```
# /usr/sbin/zfs mount -a <Return>
```

- 7) Mount the DVD/CD.

The mounting procedure depends on the model.

For details of mounting the DVD/CD, see Appendix F, "Mounting the DVD/CD".

- 8) 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 3.1 will be installed.

Platform: FJSV,GPUZC-L
OS Release: Solaris 10
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 you installed this product without mounting '/opt', please mount '/opt' after removing this product following the instructions in "5.4 Removing Enhanced Support Facility" and then re-install this product.

- **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 3.1

Platform: FJSV,GPUZC-L
OS Release: Solaris 10

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

- **When you installed Enhanced Support Facility 3.1 into unsupported machine models.**

When you try to install Enhanced Support Facility 3.1 into machine models unsupported by Enhanced Support Facility 3.1, either of the following messages is displayed.

Please use Enhanced Support Facility 2.6 for the following machine models.

- PRIMEPOWER1/100/200/400/600/800/1000/2000
- GP7000F Model 200/200R/400/400R/400A/600/600R/1000/2000

Example

```
# bin/esfadd <Return>
esfadd: ERROR: This Hardware Platform is not supported.
```


- 9) In SPARC Enterprise T series, or M series, 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 3.1 is finished successfully, the following message appears and the installation of the drivers starts.

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

Note) Even if Enhanced Support Facility 3.1 is removed, the above drivers are not removed from the system.

- 10) Unmount the DVD/CD 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>
```

- 11) Eject Enhanced Support Facility 3.1 DVD/CD.

- 12) When Enhanced Support Facility Manuals & Patches is attached, insert Enhanced Support Facility Manuals & Patches into the DVD/CD drive to apply patches.

If you cannot see the contents of the DVD/CD, please refer to "Appendix F Mounting the DVD/CD" to mount the DVD/CD again.

When Enhanced Support Facility Manuals & Patches is not attached, go to 16) and perform the remaining steps.

- 13) Go to the root directory of the DVD/CD and execute the `esfpachadd` command with following procedure.

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

or

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

Either of the following confirmation messages is displayed. Enter "yes" to continue the installation.

Example

```
Enhanced Support Facility 3.1 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
```

- 14) Unmount the DVD/CD 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>
```

15) Eject Enhanced Support Facility Manuals & Patches DVD/CD.

16) Reboot the system.

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

17) The superuser starts the volume manager. (Solaris 10 only)

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

18) Check the version of the individual packages included in the installed Enhanced Support Facility 3.2 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          3.1              2008.09.0200
FJSVdr           1.3              2005.01.1100
                 :
                 :
FJSVparam        1.1              2005.01.1100
-----
ESF_PATCH_VERSION = 3.1A10_20100218
```

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.

This message will be displayed when the *<pkginst>* package installation fails.

For more information, please refer to "C.1.2 Resolution of problems occur when package is installed(II)".

```
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.
```

```
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 FJSVcmdnd packages, but the installation will complete normally.

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

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 DVD/CD.

The applied patches vary depending on the system status.

```
/cdrom/cdrom0/ESFREMCSPP/README
```

```
Enhanced Support Facility 3.1 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
```

5.2.5 Environment setting after installation

The following table lists the environment settings required to use this software.

For documentation information, refer to "2 Online Manuals".

Table 5.2.5-1 Environment Settings List

No.	Component	Description
1	SCF Driver	If you use the RAS control device driver, you need to change the PATH environment variable. Refer to Section 1.3, "Server Setup" in "User's Guide for SCF Driver" 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	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. To edit the system parameter, add the following record to the <code>/etc/system</code> file (The following example increases the value of system parameter "Semmni" to 20.):</p> <pre>set semsys:seminfo_semmni = 20</pre> <p>* Semmni: Number of semaphore identifiers. The setting value can be checked with the <code>sysdef(1M)</code> 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. (By default 128 semaphore identifiers can be used.) If more semaphore identifiers are required, use the <code>prctl(1)</code> command to increase the value of <code>project.max-sem-ids</code>. For details, refer to the manual page of the <code>prctl(1)</code> command. In the following example, the value of <code>project.max-sem-ids</code> for project name <code>user.root</code> is 138.</p> <pre>prctl -n project.max-sem-ids -t privileged -r -v 138 -i project user.root</pre>

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 Important Notes Before the Update

Table 5.3.1-1 Important Notes List

Single user mode	You need to install this product in single user mode.
Mounting the file system	This product is installed into '/opt'. If '/opt' is another file system, '/opt' is not mounted in single user mode. Therefore please be sure to mount '/opt' with <code>mountall -l</code> before installing this product.
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.
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.
Notes	Packages of old Enhanced Support Facility remain at the time of an update installation. For more information, please refer to "Appendix D.3 A note when performing an update installation".
About Logical Domains Manager	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. For more information on the Logical Domains Manager and Solaris Security Toolkit, please refer to "Logical Domains Guide". Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.

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 Enhanced Support Facility 3.1 DVD/CD into the DVD/CD 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>
```

If you are prompted like below, please select "o".

```
r) reboot, o) k prompt, h) alt? o
```

- 5) Boot the system in single-user mode.

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

When the following message is displayed, enter the password.

For Solaris 10

```
Requesting System Maintenance Mode  
SINGLE USER MODE  
  
Root password for system maintenance (control-d to bypass): password <Return>
```

For Solaris 9 or older

```
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>
```

Note) If there are some file systems (/opt) which are not mounted by the 'mountall -l' command while you are making preparations for the patch application, please mount them by the mount(1M) command one by one.

Case A When Solaris 10 6/06 or later uses ZFS

Mount the required file system.

```
# /usr/sbin/zfs mount -a <Return>
```

- 7) Mount the DVD/CD.

For details of mounting the DVD/CD, see Appendix F, "Mounting the DVD/CD".

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

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

The packages being updated will be displayed.

Example

```
Check the package that will be updated.

Platform: FJSV,GPUZC-L
OS Release: Solaris 9

PKGNAME          CURRENT VERSION          FUTURE VERSION
-----
FJSVbse          3.0    REV=2006.12.1200    3.1    REV=2008.09.0200
FJSVapcs         1.4.0  REV=2003.08.1200    1.4.2  REV=2008.08.1200
FJSVdmp          1.5    REV=2002.11.2700    1.6    REV=2008.09.0200
FJSVhrm          3.0.0  REV=2006.06.1300    3.4.1  REV=2008.08.1200
FJSVpmgc         1.0    REV=2005.11.1500    1.1    REV=2008.07.0100
-----
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.

Table 5.3.3-1 Environment Setting Files List

Component name	Package name	Environment setting file
DR, NGDR Command	FJSVdr FJSVdrcmd	/etc/opt/FJSVdr/reply/C/dr_op
SCF Driver	FJSVscr3 FJSVscu3 FJSVpscr	/etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scf.conf /etc/opt/FJSVhwr/adrc.conf
Machine Administration Remote Support	FJSVcmnd FJSVrlib FJSVragt FJSVrmaos FJSVcmrm FJSVpmrm FJSVpmnd	Provides the savelogs command to save/restore the environment setting file.
Auto Power Control System	FJSVapcs	/var/opt/FJSVapcs/*

Note) Please be sure to refer to the note on Clause 3 in "4.3 Notes" when you are using a cluster environment using SafeCLUSTER/PRIMECLUSTER.

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, "Instructions".

```
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

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

- For PRIMEPOWER650/850/900/1500/2500

```
# cd /  
# ls /etc/opt/FJSVhwr/pwrctl.property /etc/opt/FJSVhwr/scf.conf  
/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 M series

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

5.3.4.4 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>
```

5.3.4.5 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>
```

5.3.4.6 System Management Console

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

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

5.3.5 Instructions

- 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 3.1

Platform: FJSV,GPUZC-L
OS Release: Solaris 10

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 you installed this product without mounting '/opt', please mount '/opt' after removing this product following the instructions in "5.4 Removing Enhanced Support Facility" and then re-install this product.

- **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 3.1 will be installed.

Platform: FJSV,GPUZC-L
OS Release: Solaris 10

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

- **When you installed Enhanced Support Facility 3.1 into unsupported machine models.**

When you try to install Enhanced Support Facility 3.1 into machine models unsupported by Enhanced Support Facility 3.1, either of the following messages is displayed.

For the following machine models, please use Enhanced Support Facility 2.6.

- PRIMEPOWER1/100/200/400/600/800/1000/2000
- GP7000F Model 200/200R/400/400R/400A/600/600R/1000/2000

Example

```
# bin/esfadd <Return>
esfadd: ERROR: This Hardware Platform is not supported.
```

- 2) In SPARC Enterprise T series, or M series, 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 3.1 is finished successfully, the following message appears and the installation of the drivers starts.

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

Note) Even if Enhanced Support Facility 3.1 is removed, the above drivers are not removed from the system.

- 3) Unmount the DVD/CD 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 Enhanced Support Facility 3.1 DVD/CD.

- 5) When Enhanced Support Facility Manuals & Patches is attached, insert Enhanced Support Facility Manuals & Patches into the DVD/CD drive to apply patches.

If you cannot see the contents of the DVD/CD, please refer to "Appendix F Mounting the DVD/CD" to mount the DVD/CD again.

When Enhanced Support Facility Manuals & Patches is not attached, go to 9) and perform the remaining steps.

- 6) Go to the root directory of the DVD/CD to execute the `esfpatchadd` command with the following procedure.

```
# cd /cdrom/ESFREMCSP <Return>
# bin/esfpatchadd <Return>
```

or

```
# cd /cdrom/cdrom0/ESFREMCSP <Return>
# bin/esfpatchadd <Return>
```

Either of the following confirmation messages is displayed. Enter "yes" to continue the installation.

Example

```
Enhanced Support Facility 3.1 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 DVD/CD 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 Enhanced Support Facility Manuals & Patches DVD/CD.

- 9) Reboot the system.

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

- 10) The superuser starts the volume manager. (Solaris 10 only)

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

- 11) Check the version of the individual packages included in the installed Enhanced Support Facility 3.2 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          3.1              2008.09.0200
FJSVdr           1.3              2005.01.1100
:
:
FJSVparam        1.1              2005.01.1100
-----
ESF_PATCH_VERSION = 3.1A10_20100218
```

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.

This message will be displayed when the *<pkginst>* package installation fails.

For more information, please refer to "C.1.2 Resolution of problems occur when package is installed(II)".

```
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.
```

```
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 FJSVcmnd packages, but the installation will complete normally.

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


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 DVD/CD.

The applied patches vary depending on the system status.

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

```
Enhanced Support Facility 3.1 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

```
# cd / <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>
```

- For PRIMEPOWER650/850/900/1500/2500

```
# 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 M series

```
# 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 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>
```

5.3.7.5 Auto Power Control System

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

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

5.3.7.6 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."

Table 5.3.8-1 Environment Settings List

No.	Component	Description
1	SCF Driver	If you use the RAS control device driver, you need to change the PATH environment variable. Refer to Section 1.3, "Server Setup" in "User's Guide for SCF Driver" 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>
4	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. To edit the system parameter, add the following record to the <code>/etc/system</code> file (The following example increases the value of system parameter "Semmni" to 20.):</p> <pre>set semsys:seminfo_semmni = 20</pre> <p>* Semmni: Number of semaphore identifiers. The setting value can be checked with the <code>sysdef(1M)</code> 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. (By default 128 semaphore identifiers can be used.)</p> <p>If more semaphore identifiers are required, use the <code>prctl(1)</code> command to increase the value of <code>project.max-sem-ids</code>. For details, refer to the manual page of the <code>prctl(1)</code> command. In the following example, the value of <code>project.max-sem-ids</code> for project name <code>user.root</code> is 138.</p> <pre>prctl -n project.max-sem-ids -t privileged -r -v 138 -i project user.root</pre>

Note) Please be sure to refer to the note on Clause 3 in "4.3 Notes" when you are using a cluster environment using

SafeCLUSTER/PRIMECLUSTER.

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.

5.4.1 For SPARC Enterprise T series, M series and PRIMEPOWER250/450/650/850

Use the DVD/CD drive equipped in the main unit to delete the Enhanced Support Facility.

SPARC Enterprise T1000 are not equipped with internal DVD/CD.

Use the DVD/CD drive with the install server to delete the Enhanced Support Facility.

To use the DVD/CD drive of the installation server, please refer to "Appendix F Mounting the DVD/CD".

5.4.2 For PRIMEPOWER900/1500/2500

To remove the Enhanced Support Facility, use the esfrm command on the DVD/CD.

As PRIMEPOWER900/1500/2500 are not supplied with a DVD/CD drive, use the DVD/CD 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".

5.4.3 Important Notes Before the Removal

Table 5.4.3-1 Important Notes List

Single user mode	You need to remove this product in single user mode.
Mounting the file system	This product is installed into '/opt'. If '/opt' is another file system, '/opt' is not mounted in single user mode. Therefore please be sure to mount '/opt' with <code>mountall-l</code> before removing this product.
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.)
About Logical Domains Manager	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 removing Enhanced Support Facility will fail. For more information on the Logical Domains Manager and Solaris Security Toolkit, please refer to "Logical Domains Guide". Use terminal emulator supporting SSH (Secure Shell) protocol to connect to the control domain.

5.4.4 Removal of Software

- 1) Insert Enhanced Support Facility 3.1 DVD/CD into the DVD/CD 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>
```

If you are prompted like below, please select "o".

```
r) reboot, o) k prompt, h) alt? o
```

- 5) Boot the system in single-user mode.

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

When the following message is displayed, enter the password.

For Solaris 10

```
Requesting System Maintenance Mode
SINGLE USER MODE

Root password for system maintenance (control-d to bypass): password <Return>
```

For Solaris 9 or older

```
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>
```

Note) If there are some file systems (/opt) which are not mounted by the 'mountall -l' command while you are making preparations for the patch application, please mount them by the mount(1M) command one by one.

Case A When Solaris 10 6/06 or later uses ZFS

Mount the required file system.

```
# /usr/sbin/zfs mount -a <Return>
```

- 7) Mount the DVD/CD.

For details of mounting the DVD/CD, see Appendix F, "Mounting the DVD/CD".

- 8) Remove Enhanced Support Facility with the esfrm command.
For detailed information on the esfrm command, please refer to "A.2 esfrm (1M) command".

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

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

[Example: If a package has an asterisk mark ("*")]

```
Enhanced Support Facility 3.1 will be removed.
FJSVbse      Enhanced Support Facility Information Management
              (sparc) 3.1,REV=2008.09.0200
*FJSVsnap    System Information Output Tool
              (all) 2.6,REV=2006.06.1300
              :
              :

FJSVdmp      Crash Dump Assistant
              (sparc) 1.6,REV=2008.09.0200

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]:
```

If a package has an asterisk mark ("*"), be sure to select "part".

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 3.1 will be removed.
FJSVbse      Enhanced Support Facility Information Management
              (sparc) 3.1,REV=2008.09.0200
              :
              :
FJSVparam    System Parameter Diagnosis
              (sparc) 1.1,REV=2005.01.1100

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>
```

- 9) Unmount the DVD/CD.

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

or

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

- 10) Eject Enhanced Support Facility 3.1 DVD/CD.

- 11) Reboot the system.

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

- 12) The superuser starts the volume manager. (Solaris 10 only)

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


5.4.5 Messages Display When Removing Software

Note 1: In the case described as below, please perform troubleshooting for the removal of software.

Note1-1

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.

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.
```

Note 2: The following messages may be displayed, but these messages do not affect the removal.

Note2-1

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
```

Note2-2

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

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

Note2-3

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
```

Note2-4

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 ]
```

Note2-5

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

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

Note2-6

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
```

Note2-7

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 >
```

5.5 About Logical Domains

Logical Domains Manager can be installed on SPARC Enterprise T5120/T5140/T5220/T5240/T5440. Logical Domains is a virtualization technology provided by Sun and enables you to run multiple different operating systems on one computer.

5.5.1 Important Notes Before Installing Logical Domains Manager

Table 5.5.1-1 Important Notes List

<p>Please install this software before installing the Logical Domains Manager.</p>	<p>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)".</p> <p>For more information on the Logical Domains Manager, control domain, guest domain, please refer to "Logical Domains Guide".</p> <p>Regarding how to operate the Enhanced Support Facility with Logical Domains, please refer to "Chapter 4 Notes" in "Enhanced Support Facility User's Guide".</p>
--	--

5.5.2 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 "5.5.3 Building Procedure for the Enhanced Support Facility 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 "5.5.4 Building Procedure for the Enhanced Support Facility in the Guest Domain". Please see flowchart (8) below for the installation steps.

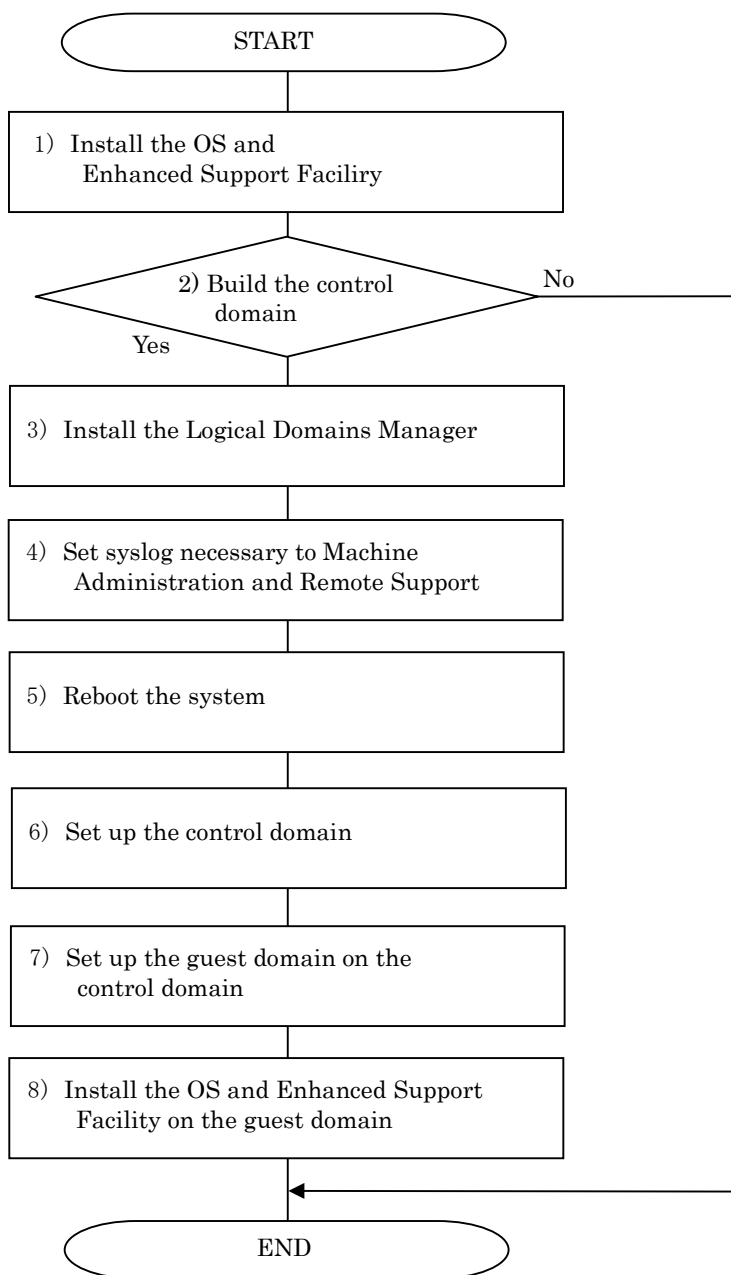


Figure 5.5.2-1 Flowchart of Building Logical Domains Environment

5.5.3 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 "SPARC Enterprise Server Hardware Platform Guide".
- 2) Install the Enhanced Support Facility.
For more information, please refer to "5.2.3 Instructions".
- 3) Install the Logical Domains Manager.
In the following selection screen, select "a) Hardened Solaris configuration for LDoms (recommended)" as the security profile.
For more information, please refer to "Logical Domains Guide".

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 LDoms (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/FJSMadm/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 "Logical Domains Guide".
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 "Logical Domains Guide".

Please refer to "5.5.4 Building Procedure for the Enhanced Support Facility in the Guest Domain" when you set up the guest domain and install the Enhanced Support Facility in it.

5.5.4 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 "SPARC Enterprise Server Hardware Platform Guide".

- 2) Install the Enhanced Support Facility into the guest domain.
For more information, please refer to "5.2.3 Instructions".

When installing the Enhanced Support Facility, use the DVD/CD of the installation server.

Regarding the network mount, please refer to "Appendix F.1.2 Mounting a DVD/CD of an installation server".

5.5.5 Update Installation in Logical Domains Environment

There are two kinds of update installation in Logical Domains environment. One is performed into the control domain environment and another is performed into the guest domain environment.

5.5.5.1 Update Installation Procedure in the Control Domain Environment

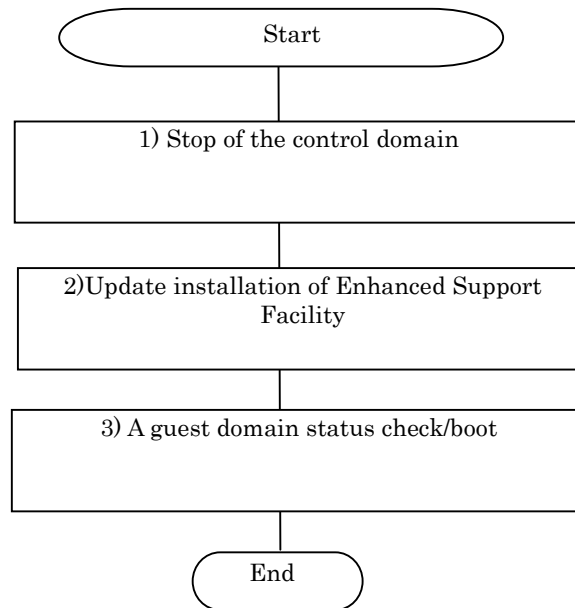


Figure 5.5.5.1-1 Flowchart of an update installation in the control domain environment

- 1) Stop the control domain
You need to take the steps below if you want to run the control domain in single-user mode.
 - Stop all guest domains.
 - Release the combination of resources of all guest domainsFor more information, please refer to "Logical Domains Guide".
- 2) Perform the update installation of Enhanced Support Facility.
For more information, please refer to "5.3 Update Installation".
- 3) Check the status of the guest domain and start it.
 - Check the status of the domain
 - Start the domainFor more information, please refer to "Logical Domains Guide".
Note) If you only start the domain, the system may be in OBP status.
Therefore please connect to the domain by the console and start it in multi-use mode.

5.5.5.2 Update Installation Procedure in the Guest Domain Environment

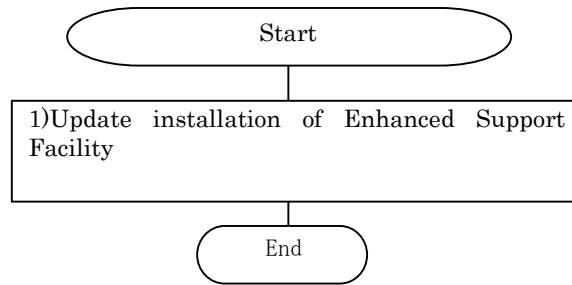


Figure 5.5.5.2-1 Flowchart of an update installation in the guest domain environment

- 1) Perform the update installation of Enhanced Support Facility.
For more information, please refer to "5.3 Update Installation".
When you install Enhanced Support Facility, please use a DVD/CD of the installation server.
Regarding network mount, please refer to "Appendix F.1.2 Mounting a DVD/CD 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 6.1.1-1.

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

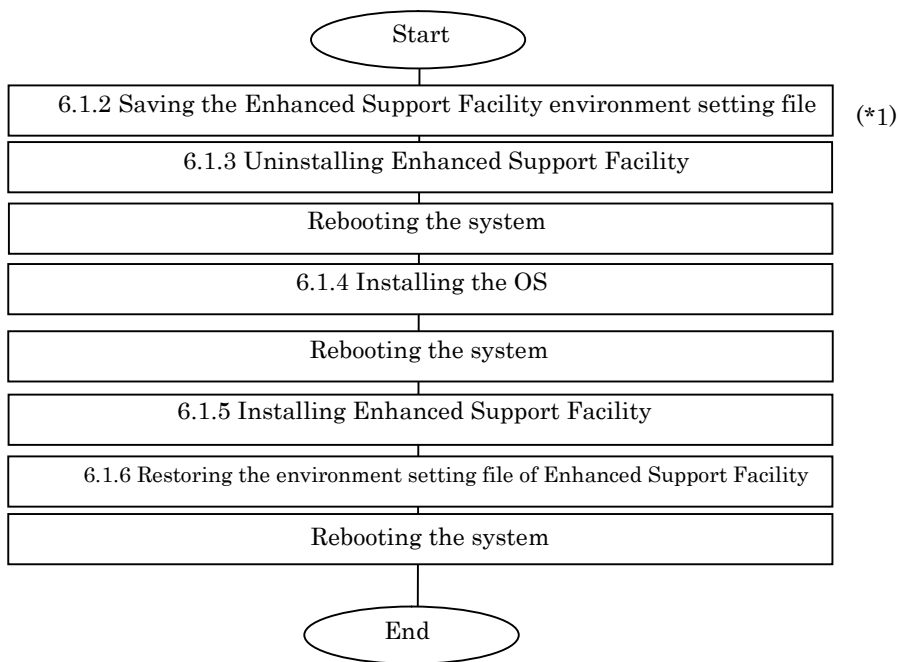


Figure 6.1.1-1 Workflow for upgrading

*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 Section 5.4.4, "Removal of software".

6.1.4 Installing the OS

When installing the Solaris OS, refer to the following:

For SPARC Enterprise T series, M series

- Refer to the "SPARC Enterprise Server Hardware Platform Guide".

For PRIMEPOWER

- Refer to the "PRIMEPOWER Hardware Platform Guide".

6.1.5 Installing Enhanced Support Facility

After OS installation is finished, install Enhanced Support Facility.

For details, refer to Section 5.2.3, "Instructions".

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

- Solaris OS:
Solaris 9, Solaris 10

- Models:
 - SPARC Enterprise T series
 - SPARC Enterprise M series
 - PRIMEPOWER250/450
 - PRIMEPOWER650(Model equipped with SPARC64™ V)/850(Model equipped with SPARC64™ V)
 - PRIMEPOWER900/1500(Model equipped with SPARC64™ V)/2500

6.2.2 Procedure

This section explains the procedure for network installation using the DVD/CD drive on the installation server.

6.2.2.1 Copying the DVD/CD images to directories on the installation server

- 1) Please copy DVD/CD images of Enhanced Support Facility 3.2 into each directory having a common parent directory.

- 2) Please share the parent directory where DVD/CD images of Enhanced Support Facility 3.2 are placed so that the target server can recognize it.

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 DVD/CD of Enhanced Support Facility.
Specify the following parameter for the mount command.
-F nfs <install_server_IP>:
 <common parent directory to which the DVD/CD image is copied><mount_point>
Specify /a/mnt for <mount_point> when using JumpStart.
- 2) State a command for installing Enhanced Support Facility 3.1.
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 Custom JumpStart.
- 3) Enter the patch application command when Enhanced Support Facility Manuals & Patches is attached.
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 Custom JumpStart.

4) Finish script

- a) In case of SPARC Enterprise T series, M series or
PRIMEPOWER250/450/650/850/900/1500/2500 with Solaris9

```
mount -F nfs <install_server_IP>:/export/home/ESF /a/mnt  
/a/mnt/esf_dir/bin/esfadd -R /a -n  
/a/mnt/patch_dir/ESFREMCS/bin/esfpatchadd -R /a -A
```

/export/home/ESF:The parent directory common to directories having the copies of the DVD/CD images
esf_dir:Name of directory to which the DVD/CD image of Enhanced Support Facility 3.1 is copied
patch_dir:Name of the directory to which the CD image of the Enhanced Support Facility
Manuals & Patches has been copied

- b) In case of PRIMEPOWER250/450/650/850/900/1500/2500 with Solaris10

```
mount -F nfs <install_server_IP>:/export/home/ESF /a/mnt  
/usr/sbin/rem_drv -b /a oplpanel  
/usr/sbin/rem_drv -b /a scfd  
/a/mnt/esf_dir/bin/esfadd -R /a -n  
/a/mnt/patch_dir/ESFREMCS/bin/esfpatchadd -R /a -A
```

/export/home/ESF:The parent directory common to directories having the copies of the DVD/CD images
esf_dir:Name of directory to which the DVD/CD image of Enhanced Support Facility 3.1 is copied
patch_dir:Name of the directory to which the CD image of the Enhanced Support Facility
Manuals & Patches has been copied

Note) The following message may be displayed when rem_drv(1M) is executed, but it can be ignored.

```
# /usr/sbin/rem_drv -b / oplpanel  
Driver (oplpanel) not installed.
```

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 "Logical Domains Guide".
- 3) 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/FJSMadm/evh/evh_pipe
```

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

- 4) Reboot the system.
- 5) Set up the control domain. For more information, please refer to "Logical Domains Guide". 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 "Logical Domains Guide".

6.2.2.5 Building Procedure for the Guest Domain

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.

Messages when Custom JumpStart is used for SPARC Enterprise.

When you install Enhanced Support Facility using Custom JumpStart for SPARC Enterprise, the following messages may be output. However this is not a problem.

[Example of messages on SPARC Enterprise T5220]

```
df: cannot statvfs /platform/sun4v/lib/libc_psr.so.1: Operation not
applicable
df: cannot statvfs /platform/sun4v/lib/sparcv9/libc_psr.so.1: Operation
not applicable
```

[Example of messages on SPARC Enterprise M3000]

```
df: cannot statvfs /platform/sun4u-us3/lib/libc_psr.so.1: Operation not
applicable
df: cannot statvfs /platform/sun4u-us3/lib/sparcv9/libc_psr.so.1:
Operation not applicable
```

6.3 Flash Archive Installation

You can use the following procedure for the installation using flash archive.

Method 1 is an installation procedure for creating flash archive where OS + (PTF) is installed and then installing Enhanced Support Facility.

Method 2 is an installation procedure for creating flash archive where OS + (PTF) + Enhanced Support Facility and installing it into each machine model +OS.

When you use Method 2, the installer cannot recognize each machine model automatically.

Please use flash archive for the same machine model group and the same OS when you perform the flash archive installation. When you use Method 1, this problem will not occur.

In chapter 6.3, the procedure of Method 2 and notes are explained.

The table of machine model groups supported by this product is shown below.

Table 6.3-1 Machine Group Table

Model name	Machine Group Name
SPARC Enterprise T1000/T2000/T5120/T5140/T5220/T5240/T5440	LE
SPARC Enterprise M3000/M4000/M5000/M8000/M9000	CW
PRIMEPOWER250/450	PW-P
PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850 (Model equipped with SPARC64™ GP)	PW-CM
PRIMEPOWER650 (Model equipped with SPARC64™ V)/850 (Model equipped with SPARC64™ V)	PW-CMZ
PRIMEPOWER1500 (Model equipped with SPARC64™ GP)	PW-CL
PRIMEPOWER900/1500 (Model equipped with SPARC64™ V)/2500	PW-CLZ

6.3.1 Procedure for creating a flash archive

The workflow for creating a flash archive is shown in Figure 6.3.1-1.

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

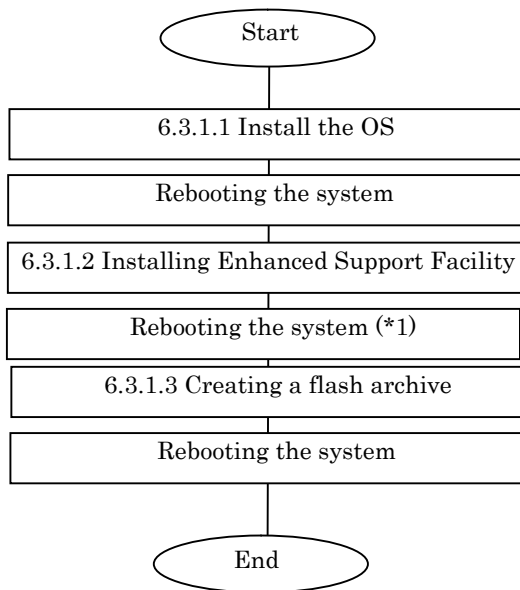


Figure 6.3.1-1 Workflow for creating a flash archive

*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 SPARC Enterprise T series, M series

- Refer to the "SPARC Enterprise Server Hardware Platform Guide".

For PRIMEPOWER

- Refer to the "PRIMEPOWER Hardware Platform Guide".

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, "Instructions".

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:

(For the details of the options, please refer to the flarcreate command.)

Table 6.3.1.3-1 flarcreate command option List

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.

- 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.
- Be sure to create a flash archive in single user mode.
- 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.
 - * 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.
- 3) Define "flash_prof" in the rules file.

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 OS can be installed in a clone system using a flash archive from the Solaris DVD/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 "Logical Domains Guide".
- 3) 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/FJSMadm/evh/evh_pipe
```

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

- 4) Reboot the system.
- 5) Set up the control domain.
For more information, please refer to "Logical Domains Guide".
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 "Logical Domains Guide".

6.3.2.5 Building Procedure for the Guest Domain

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:

Table 6.3.3-1 Environment Settings List

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 evsddd: Can't get host name. Feb 28 10:28:23 host_name evsddd: 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	Tape Driver Definition Tool	<p>If the tape device is not recognized after installation, take the following setting steps:</p> <pre># /var/opt/FJSVdcnf/bin/fjcnfset st<Return> # /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:

Table 6.3.4-1 Notes List

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	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 6.3.3, "Setting the Enhanced Support Facility environment after flash archive installation".
3	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	If the tape device is not recognized after installation, take the following setting steps: # /var/opt/FJSVdcnf/bin/fjcnfset st<Return> # /usr/sbin/shutdown -y -g0 -i6<Return> You do not have to do the above if you installed this software according to the procedure in 1) in Section 6.3.
4	Symptom	Executing "pkgchk -n" displays ERROR.
	Applicable model	None
	Applicable package	FJSVpscr, FJSVscr3, FJSVdef, FJSVcmnd
	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

No.	Item	Description
5	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	<pre> /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: fjgi0 hme0. PW450Q </pre>
	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.

Table 6.4.2-1 Component Groups List

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 HRM-S system operation support function. All components including Machine Administration, HRM-S system operation support function 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 [-O COMPONENT-GROUP]
```

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

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

- 1) To perform installation, specify the option in the esfadd command.

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

The following message is displayed.

```
Enhanced Support Facility 3.1 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>
```

For notes on installation, see Section 5.2.3, "Instructions".

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 3.1 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.

- 2) 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          3.1         2008.09.0200
FJSVscdx         1.1         2005.01.1100
                 :
                 :
FJSVpmgc         1.1         2008.07.0100
-----
```

- 3) 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 3.1 will be removed.
COMPONENT-GROUP: BASIC
FJSVbse          Enhanced Support Facility Information Management
                 (sparc) 3.1,REV=2008.09.0200
                 :
                 :
FJSVpmgc         Patch Management Tool - fjcollect command
                 (sparc) 1.1,REV=2008.07.0100

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 "SPARC Enterprise Server Hardware Platform Guide".
- 2) Install the Enhanced Support Facility by specifying component groups to install the Logical Domains Manager.
Please refer to "6.4 Specifying a Component Group for Installation".
- 3) Install the Logical Domains Manager.
For more information, please refer to "Logical Domains Guide".
- 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/FJSMadm/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 "Logical Domains Guide".
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 "Logical Domains Guide".

6.4.3.3 Building Procedure for the Guest Domain

- 1) Install the OS into the guest domain.
For more information, please refer to "Logical Domains Guide".
- 2) Install the OS and Enhanced Support Facility into the guest domain you set up.
Please refer to "6.4 Specifying a Component Group for Installation".

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 Section 4.3 "Notes".

6.5.1 Restrictions

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

- Solaris Live Upgrade cannot be performed on Solaris 8 10/01 or earlier.
- Solaris Live Upgrade cannot be performed from Enhanced Support Facility 2.3 or earlier.
- Solaris Live Upgrade cannot be done on a system where an update installation from Enhanced Support Facility 2.3 or older to Enhanced Support Facility 2.4.1 or newer has been performed.
This is because packages not supporting Solaris Live Upgrade remain even if the system has been updated to Enhanced Support Facility 2.4.1 or newer.

6.5.2 Upgrade Procedure

The following shows how to update Enhanced Support Facility.

Regarding the details of each procedure, please refer to the sections/clauses within each frame below.

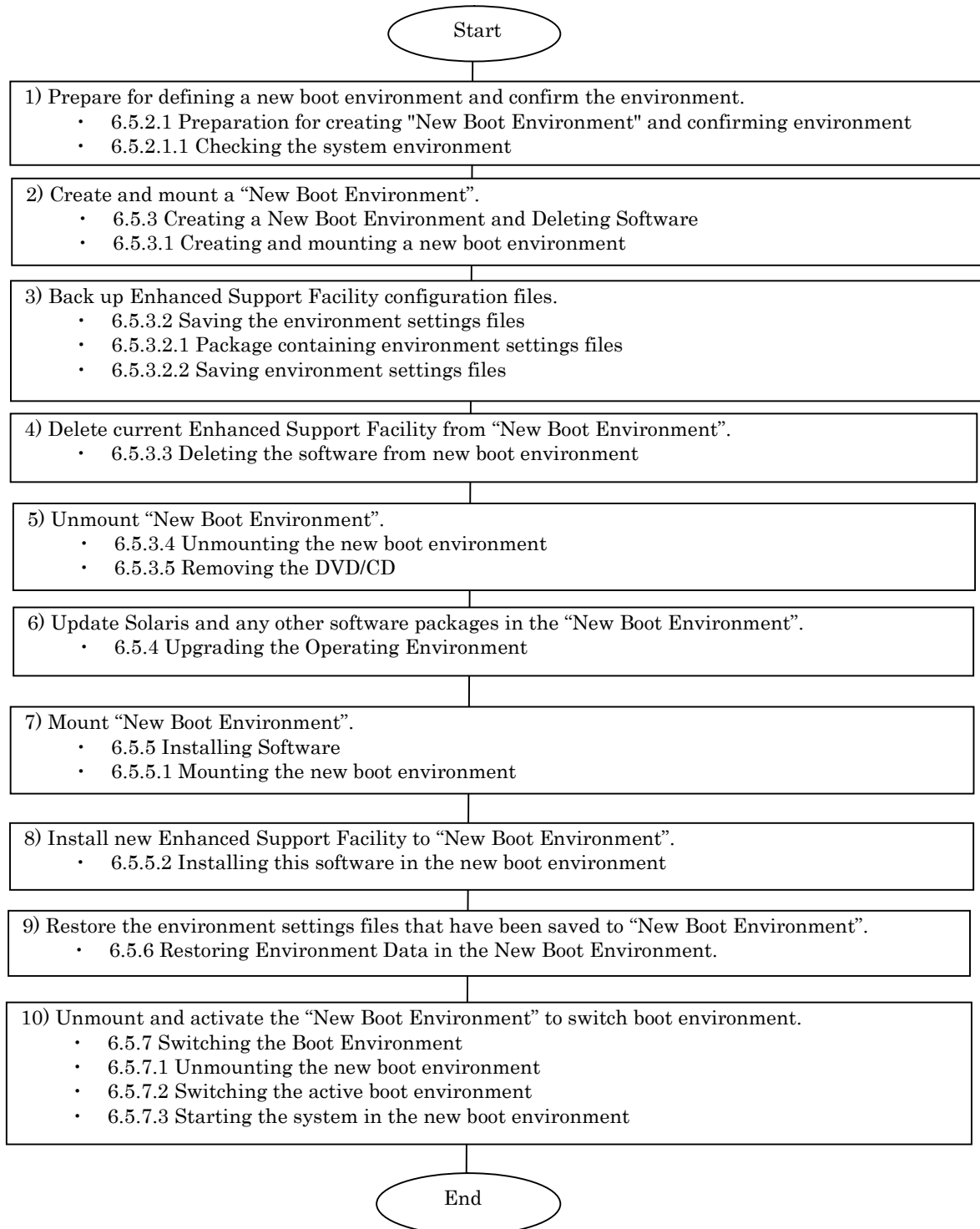


Figure 6.5.2-1 Solaris Live Upgrade Flowchart

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 Solaris Live Upgrade 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 SPARC Enterprise T series, M series and PRIMEPOWER250/450/650/850 the following packages have environment settings files.

Table 6.5.3.2.1-1 Environment Settings List

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

Note) Please be sure to refer to the note on Clause 3 in "4.3 Notes" when you are using a cluster environment using SafeCLUSTER/PRIMECLUSTER.

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

Table 6.5.3.2.1-2 Environment Settings List

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
FJSVcmnd	The savelogs command is provided to save/restore the environment setting file.
FJSVapcs	/var/opt/FJSVapcs/*

Note) Please be sure to refer to the note on Clause 3 in "4.3 Notes" when you are using a cluster environment using SafeCLUSTER/PRIMECLUSTER.

6.5.3.2.2 Saving environment settings files

For SPARC Enterprise T series, M series 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 M series).

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

For PRIMEPOWER900/1500/2500:

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>
```

Save the SCF Driver environment setting files.

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

Save the System Management Console settings.

```
# cp /etc/FJSVscslhostname 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 DVD/CD containing the same version of Enhanced Support Facility that is currently installed.

- 1) Mount the DVD/CD.

The mounting procedure depends on the model.

For details of mounting the DVD/CD, see Appendix F, "Mounting the DVD/CD".

- 2) 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 -R /.alt.ALTERNATIVE 914562-01 <Return>
```

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

Use the esfrm command from the DVD/CD 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 later.

```
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 DVD/CD

- 1) Eject the Enhanced Support Facility DVD/CD.

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 3.2 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 3.1 DVD/CD to install Enhanced Support Facility on the new boot environment.

- 1) Mount the DVD/CD.

The mounting procedure depends on the model.

For details of mounting the DVD/CD, see Appendix F, "Mounting the DVD/CD".

- 2) Install the Enhanced Support Facility 3.1 in the new boot environment.

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

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

Note1: The mount point must not be followed by a slash (/).

Error: # bin/esfadd -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 3.1 on PRIMEPOWER450:

```
Enhanced Support Facility 3.1 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.

This message will be displayed when the *<pkginst>* package installation fails.

For more information, please refer to "C.1.2 Resolution of problems occur when package is installed(II)".

```
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 FJSVemnd packages, but the installation will complete normally.

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

3) Unmount the DVD/CD.

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>
```

4) Eject Enhanced Support Facility 3.1 DVD/CD.

5) When Enhanced Support Facility Manuals & Patches is attached, insert Enhanced Support Facility Manuals & Patches into the DVD/CD drive to apply patches.

Please refer to 1) regarding how to mount DVD/CD.

When Enhanced Support Facility Manuals & Patches is not accompanied, you do not have to take step 6) and the remaining steps.

- 6) Go to the directory where DVD/CD has been mounted and then execute the `esfpatchadd` command with the following procedure.

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

or

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

Either of the following confirmation messages will be displayed. Enter "yes" to continue the installation.

```
Enhanced Support Facility 3.1 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) Eject Enhanced Support Facility Manuals & Patches DVD/CD.

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.

- 1) For SPARC Enterprise T series, M series 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>
```

Note) Please be sure to refer to the note on Clause 3 in "4.3 Notes" when you are using a cluster environment using SafeCLUSTER/PRIMECLUSTER.

Restore the SCF/SCSI Fault LED support option setting files
(for SPARC Enterprise M series).

```
# 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.ALTNATIVE
```

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

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

2) 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.

```
# cd /.alt.ALTERNATIVE <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>
```

Note) Please be sure to refer to the note on Clause 3 in "4.3 Notes" when you are using a cluster environment using SafeCLUSTER/PRIMECLUSTER.

Restore the settings file for the automatic power control system.

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

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

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

Restore the System Management Console setting.

```
# cp save_file /.alt.ALTERNATIVE/etc/FJSVscslhostname <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.

6.6 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 by using the partition installer, please be sure to install Enhanced Support Facility 3.2.

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 by using the unified installer, please be sure to install Enhanced Support Facility 3.2.

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(DVD/CD).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:

Abbreviated names of machine models are used in the table below. For more information, please refer to "Notations Used" in "Preface".

Table A.1-1 Package Storage Directories List

Abbreviation	Solaris OS	package directory
LE	10	/mnt/Platform/LE/10
CW	10	/mnt/Platform/CW/10
PW-P	8	/mnt/Platform/P/8
	9	/mnt/Platform/P/9
	10	/mnt/Platform/P/10
PW-CM	8	/mnt/Platform/C_M/8
	9	/mnt/Platform/C_M/9
	10	/mnt/Platform/C_M/10
PW-CMZ	8	/mnt/Platform/C_M_Z/8
	9	/mnt/Platform/C_M_Z/9
	10	/mnt/Platform/C_M_Z/10
PW-CL	8	/mnt/Platform/C_L/8
	9	/mnt/Platform/C_L/9
	10	/mnt/Platform/C_L/10
PW-CLZ	8	/mnt/Platform/C_L_Z/8
	9	/mnt/Platform/C_L_Z/9
	10	/mnt/Platform/C_L_Z/10

/mnt: Mount Point

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 command 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 does not remove any Enhanced Support Facility packages.
 - "part": The esfrm command removes all package(s) without 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 does 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 DVD/CD. Be careful when removing the package because the package cannot be reinstalled with the DVD/CD. 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=3.1 REVISION=2008.09.0200,

ESF_PATCH_VERSION = 3.1A10_20100218

-- WARNING --
Two or more instances of the following packages have been installed on the system.
Package_name Package_name.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      3.1          2008.09.0200
FJSVscdx     1.9.2        2004.12.2100
:
:
FJSVhrm      3.4.1        2008.07.2201
Fail to get information of FJSVparam.
-----
ESF PATCH_VERSION = 3.1A10_20100218

#
```

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=3.1 REVISION=2008.09.0200,

ESF PATCH_VERSION = 3.1A10_20100218

#
```

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      3.1          2008.09.0200
FJSVscdx     1.9.2        2004.12.2100
:
:
FJSVhrm      3.4.1        2008.07.2201
FJSVdcnf     1.2          2006.08.2900
-----
ESF PATCH_VERSION = 3.1A10_20100218

#
```

A.4 esfpatchadd (1M)

NAME

esfpatchadd - Applies patches to installed Enhanced Support Facility

SYNOPSIS

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

DESCRIPTION

Esfpatchadd is a command that installs patches for the Enhanced Support Facility collectively. This command is used when you install patches from the Manuals & Patches media (DVD/CD).

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.

Abbreviated names of machine models are used in the table below. For more information, please refer to "Notations Used" in "Preface".

Table A.4-1 Patch Storage Directories List

Abbreviation	Solaris OS	Patch directory
LE	10	<i>/mnt</i> /ESFREMCSPlatform/LE/10
CW	10	<i>/mnt</i> /ESFREMCSPlatform/CW/10
PW-P	8	<i>/mnt</i> /ESFREMCSPlatform/P/8
	9	<i>/mnt</i> /ESFREMCSPlatform/P/9
	10	<i>/mnt</i> /ESFREMCSPlatform/P/10
PW-CM	8	<i>/mnt</i> /ESFREMCSPlatform/C_M/8
	9	<i>/mnt</i> /ESFREMCSPlatform/C_M/9
	10	<i>/mnt</i> /ESFREMCSPlatform/C_M/10
PW-CMZ	8	<i>/mnt</i> /ESFREMCSPlatform/C_M_Z/8
	9	<i>/mnt</i> /ESFREMCSPlatform/C_M_Z/9
	10	<i>/mnt</i> /ESFREMCSPlatform/C_M_Z/10
PW-CL	8	<i>/mnt</i> /ESFREMCSPlatform/C_L/8
	9	<i>/mnt</i> /ESFREMCSPlatform/C_L/9
	10	<i>/mnt</i> /ESFREMCSPlatform/C_L/10
PW-CLZ	8	<i>/mnt</i> /ESFREMCSPlatform/C_L_Z/8
	9	<i>/mnt</i> /ESFREMCSPlatform/C_L_Z/9
	10	<i>/mnt</i> /ESFREMCSPlatform/C_L_Z/10

/mnt: Mount Point

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

Abbreviated names of machine models are used in the table below. For more information, please refer to "Notations Used" in "Preface".

Component group

C: CORE

B: BASIC

F: FULL

O: Supported, -: Not supported

B.1 Solaris 8 OS

Table B.1-1 Component Programs List

No	Component	Package name	VL	Abbreviation					Component group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.1	O	O	O	O	O	O	O	O
2	DR Command	FJSVdrcmd	1.8	-	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
		FJSVpscuj	1.1.1	O	-	-	-	-	O	O	O
4	SunVTS, FJVTS	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
		FJSVvts	4.0	O	O	O	O	O	-	O	O
5	Machine Administration	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
6	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
		FJSVemrm	1.6	-	-	-	O	O	O	O	O
		FJSVemrm2	1.2	-	O	O	-	-	O	O	O
FJSVpmm	1.3	O	-	-	-	-	O	O	O		
7	Auto Power Control System	FJSVapcs	1.4.2	O	O	O	O	O	-	O	O
8	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
9	System Data Output Tool	FJSVsnap	2.6	O	O	O	O	O	O	O	
10	Crash Dump Assistant	FJSVdmp	1.6	O	O	O	O	O	O	O	

No	Component	Package name	VL	Abbreviation					Component group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
11	Auto Dump Analyze Tool	FJSVana	1.1	0	0	0	0	0	0	0	0
12	Reliability Driver	FJSVsec	1.2.2	-	0	0	-	-	0	0	0
13	G-LAN error notification	FJSVgidad.us	2.0.1	0	0	0	0	0	0	0	0
14	G-LAN MTU setting	FJSVgidr.us	2.0.0	0	0	0	0	0	0	0	0
15	HCP	FJSVhcp	1.0	0	-	-	-	-	0	0	0
16	System Parameter Diagnosis	FJSVparam	1.1	0	0	0	0	0	0	0	0
17	HRM-S	FJSVhrm	3.4.1	0	0	0	0	0	-	-	0
18	Tape Driver Configuration Tool	FJSVdenf	1.2	0	0	0	0	0	0	0	0
19	Patch Information Collect Command	FJSVpmgc	1.1	0	0	0	0	0	0	0	0

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

B.2 Solaris 9 OS

Table B.2-1 Component Programs List

No.	Component	Package name	VL	Avvreviation					Component Group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.1	0	0	0	0	0	0	0	0
2	NGDR Command	FJSVdr	1.3	-	0	0*1	-	-	0	0	0
3	SCF Driver	FJSViomp	2.3	0	0	0	0	0	0	0	0
		FJSVscd3	1.3		0	0	0	0	0	0	0
		FJSVscr3	1.3.1		0	0	0	0	0	0	0
		FJSVscu3	1.3.1		0	0	0	0	0	0	0
		FJSVscuj3	1.3		0	0	0	0	0	0	0
		FJSVpscd	1.1	0	-	-	-	-	0	0	0
		FJSVpscr	1.1	0	-	-	-	-	0	0	0
		FJSVpscu	1.1.1	0	-	-	-	-	0	0	0
4	SunVTS, FJVTS	FJSVpscu3	1.1	0	-	-	-	-	0	0	0
		SUNWvts	5.1	0	0	0	0	0	-	0	0
		SUNWvtsmn	5.1	0	0	0	0	0	-	0	0
		SUNWvtsx	5.1	0	0	0	0	0	-	0	0
5	Machine Administration	FJSVvts	5.1	0	0	0	0	0	-	0	0
		FJSVmadm	1.2.3	0	0	0	0	0	0	0	0
		FJSVemnd	2.0		0	0	0	0	0	0	0
		FJSVpmnd	1.2.3	0	-	-	-	-	0	0	0
6	Remort Support	FJSVmaom	2.0	0	0	0	0	0	-	-	0
		FJSVrlib	8.2.2	0	-	-	0	0	0	0	0
		FJSVragt	2.9	0	-	-	0	0	0	0	0
		FJSVrmaos	2.9	0	-	-	0	0	0	0	0
		FJSVrrda	2.9	0	0	0	0	0	0	0	0
		FJSVracm	2.9	0	0	0	0	0	0	0	0
		FJSVsirms	4.0	0	0	0	0	0	0	0	0
		FJSVcmrm	1.6	-	-	-	0	0	0	0	0
		FJSVcmrm2	1.2	-	0	0	-	-	0	0	0
FJSVpmrm	1.3	0	-	-	-	-	0	0	0		
7	Auto Power Control System	FJSVapcs	1.4.2	0	0	0	0	0	-	0	0
8	Server Default Configuration	FJSVdef	1.3.1	0	0	0	0	0	0	0	0
		FJSVssf	2.0.2	0	0	0	0	0	0	0	0
		FJSVpnlx.us	2.1	0	0	0	0	0	0	0	0
		FJSVpnl.us	2.1	0	0	0	0	0	0	0	0
		FJSVwarn.us	1.3	0	0	0	0	0	0	0	0
9	System Data Output Tool	FJSVsnap	2.6	0	0	0	0	0	0	0	
10	Crash Dump Assistant	FJSVdmp	1.6	0	0	0	0	0	0	0	

No.	Component	Package name	VL	Avvreviation					Component Group		
				PW-P	PW-CLZ	PW-CL	PW-CMZ	PW-CM	C	B	F
11	Auto Dump Analyze Tool	FJSVana	2.1	O	O	O	O	O	O	O	O
12	Reliability Driver	FJSVsec	2.0.2	-	O	O	-	-	O	O	O
13	G-LAN error notification	FJSVgidad.us	2.1.1	O	O	O	O	O	O	O	O
14	HCP	FJSVhcp	1.0	O	-	-	-	-	O	O	O
15	System Parameter Diagnosis	FJSVparam	1.1	O	O	O	O	O	O	O	O
16	HRM-S	FJSVhrm	3.4.1	O	O	O	O	O	-	-	O
17	Tape Driver Configuration Tool	FJSVdenf	1.2	O	O	O	O	O	O	O	O
18	Patch Information Collect Command	FJSVpmge	1.1	O	O	O	O	O	O	O	O

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

B.3 Solaris10 OS

B.3.1 SPARC Enterprise T series, M series

Table B.3.1-1 Component Programs List

No.	Component	Package name	VL	Abbreviation		Component group		
				CW	LE	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.1	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	FJSVarmr	1.0	O	-	O	O	O
		FJSVlrmr	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	1.4.2	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	1.6	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	3.4.1	O	O	-	-	O
13	Tape Driver Configuration Tool	FJSVdcnf	1.2	O	O	O	O	O
14	Patch Information Collect Command	FJSVpmgc	1.1	O	O	O	O	O
15	Console flow control canceller	FJSVcflw	1.0	O	O	O	O	O

B.3.2 PRIMEPOWER250/450/650/850/900/1500/2500

Table B.3.2-1 Component Programs List

No.	Component	Package name	VL	Abbreviation					Component group		
				PW-P	PW-CLZ	PW-C L	PW-CMZ	PW-CM	C	B	F
1	Enhanced Support Facility Information Management	FJSVbse	3.1	0	0	0	0	0	0	0	0
2	NGDR Command	FJSVdr	1.3	-	0	0 *1	-	-	0	0	0
3	SCF Driver	FJSViompp	2.3	0	0	0	0	0	0	0	0
		FJSVscd3	1.3	-	0	0	0	0	0	0	0
		FJSVscr3	1.3.1	-	0	0	0	0	0	0	0
		FJSVscu3	1.3.1	-	0	0	0	0	0	0	0
		FJSVscuj3	1.3	-	0	0	0	0	0	0	0
		FJSVpscd	1.1	0	-	-	-	-	0	0	0
		FJSVpscr	1.1	0	-	-	-	-	0	0	0
		FJSVpscu	1.1.1	0	-	-	-	-	0	0	0
4	SunVTS,FJVTS	SUNWvts	5.1	0	0	0	0	0	-	0	0
		SUNWvtsmn	5.1	0	0	0	0	0	-	0	0
		SUNWvtsx	5.1	0	0	0	0	0	-	0	0
		FJSVvts	5.1	0	0	0	0	0	-	0	0
5	Machine Administration	FJSVmadm	1.2.3	0	0	0	0	0	0	0	0
		FJSVcmnd	2.0		0	0	0	0	0	0	0
		FJSVpmnd	1.2.3	0	-	-	-	-	0	0	0
		FJSVmaom	2.0	0	0	0	0	0	-	-	0
6	Remote Support	FJSVrlib	8.2.2	0	-	-	0	0	0	0	0
		FJSVragt	2.9	0	-	-	0	0	0	0	0
		FJSVrmaos	2.9	0	-	-	0	0	0	0	0
		FJSVrrda	2.9	0	0	0	0	0	0	0	0
		FJSVracm	2.9	0	0	0	0	0	0	0	0
		FJSVsirms	4.0	0	0	0	0	0	0	0	0
		FJSVcmrm	1.6	-	-	-	0	0	0	0	0
		FJSVcmrm2	1.2	-	0	0	-	-	0	0	0
FJSVpmrm	1.3	0	-	-	-	-	0	0	0		
7	Auto Power Control System	FJSVapcs	1.4.2	0	0	0	0	0	-	0	0
8	Server Default Configuration	FJSVdef	1.4	0	0	0	0	0	0	0	0
		FJSVssf	3.0.1	0	0	0	0	0	0	0	0
		FJSVpnl.us	3.0	0	0	0	0	0	0	0	0
		FJSVwarn.us	2.0.1	0	0	0	0	0	0	0	0
9	System Data Outoput System	FJSVsnap	2.6	0	0	0	0	0	0	0	
10	Crash Dump Assistant	FJSVdmp	1.6	0	0	0	0	0	0	0	

No.	Component	Package name	VL	Abbreviation					Component group		
				PW-P	PW-CLZ	PW-C L	PW-CMZ	PW-CM	C	B	F
11	Auto Dump Analyze Tool	FJSVana	2.1	O	O	O	O	O	O	O	O
12	Reliability Driver	FJSVsec	3.0	-	O	O	-	-	O	O	O
13	G-LAN error notification	FJSVgidad.us	2.2.1	O	O	O	O	O	O	O	O
14	HCP	FJSVhcp	1.0	O	-	-	-	-	O	O	O
15	System Parameter Diagnosis	FJSVparam	1.1	O	O	O	O	O	O	O	O
16	HRM-S	FJSVhrm	3.4.1	O	O	O	O	O	-	-	O
17	Tape Driver Configuration Tool	FJSVdenf	1.2	O	O	O	O	O	O	O	O
18	Patch Information Collect Command	FJSVpmge	1.1	O	O	O	O	O	O	O	O

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

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 5.3.5, "Instructions".
- 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 5.3.5, "Instructions".
- 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 3.3.1, "Disk requirements").
2. If using NFS to mount the DVD/CD 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 5.3.5, "Instructions".

- 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 occur 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 5.3.5, "Instructions".

- 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.
```

Case2

Refer to Appendix C.2.2 when the following messages are displayed while deleting the package.

```
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.
```

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 5.4.4, "Removal of Software".

C.2.2 Resolution of problems, which occurred when package was removed (II).

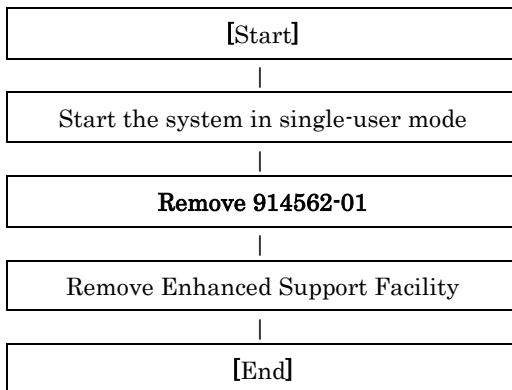
If you execute 'esfrm' on Solaris 10 OS with Patch 914562-01 installed, the removal of Enhanced Support Facility fails.

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

Removal of <FJSVdmp> failed.

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

Please follow the steps below when you remove Enhanced Support Facility.



Problem Causes

These messages are displayed when you try to remove this product while a service provided by the Crash Dump Assistant is running.

Solution

If you performed the removal of Enhanced Support Facility 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

2) Execute the following procedures to apply the patch again

2-1) Remove the FJSVbse package.

```
# pkgrm FJSVbse <Return>
```

2-2) Go on to the procedures in Section 5.2.3, "Instructions".

Appendix D Notes

D.1 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.

- 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.2 Notes on FJVTs for PRIMEPOWER

D.2.1 Notes on installing Enhanced Support Facility on Solaris 10 8/07 or older

On Solaris 10 8/07 or older, you can decide whether or not you install SunVTS (Sun Validation Test Suite) from the following screen at Solaris installation. However please do not install SunVTS.

[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.

If you have installed the Enhanced Support Facility without deleting SunVTS related packages, you are not able to Boot FJVTs.

[Example of failure in start of the FJVTs]

```
# /opt/FJSVvts/bin/fjvts  
Now, FJVTs system is under construction.  
Apr 20 14:58:20 hostname SunVTS6.0: entry = .customtest  
Apr 20 14:58:20 hostname SunVTS6.0: entry = .customtest_OtherDevices  
Apr 20 14:58:21 hostname 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.  
#
```

* If the above problem occurs, please refer to "D.2.3 Action at the FJVTs failure".

D.2.2 Notes on installing Enhanced Support Facility on Solaris 10 5/08 or newer

SunVTS may be installed together with Solaris 10 5/08 or later. Before installing the Enhanced Support Facility, please execute the command shown below to delete SunVTS related packages.

```
# pkgrm SUNWvtsts SUNWvtss SUNWvtstr SUNWvtsmn SUNWvts <Return>
```

* Please use SunVTS included in the Enhanced Support Facility.

If you have installed the Enhanced Support Facility without deleting SunVTS related packages, you are not able to Boot FJVTS.

[Example of FJVTS boot failure]

```
# /opt/FJSVvts/bin/fjvts <Return>
Can't find sunvts.
#
```

* If the above problem occurs, please refer to "D.2.3 Action at the FJVTS failure".

D.2.3 Action at the FJVTS failure

If you did not take the necessary steps described in "D.2.1 Notes on installing Enhanced Support Facility on Solaris 10 8/07 or older" and "D.2.2 Notes on installing Enhanced Support Facility on Solaris 10 5/08 or newer" and as a result FJVTS failed to start, please take the steps below.

- 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.
- In case of Solaris 10 8/07 or older
Execute the following command.

```
# pkgrm FJSVvts SUNWvtsx SUNWvtsts SUNWvtstr SUNWvtsmn SUNWvts <Return>
```

- In case of Solaris10 5/08 or newer
Execute the following command.

```
# pkgrm FJSVvts SUNWvtsx SUNWvtsts SUNWvtss SUNWvtstr 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  xxxxxxxx
                                   xxxxxxxx
xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx  xxxxxxxx

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.
Reinstall Enhanced Support Facility, using the procedures in Section 5.2.3, "Instructions".
- 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".

D.3 A note when performing an update installation

The following packages of old Enhanced Support Facility remain at an update installation, but this does not affect the system. These packages cannot work in the system.

Table D.3-1 Old Enhanced Support Facility remaining packages List

Package	SolarisOS	Model
FJSVcpupd	8,9,10	PRIMEPOWER650/850/900/1500/2500
FSUNlic	8,9,10	PRIMEPOWER250/450/650/850/900/1500/2500
FJSVwvcnf	8,9,10	PRIMEPOWER250/450/650/850/900/1500/2500
FJSVwvbs	8,9,10	PRIMEPOWER250/450/650/850/900/1500/2500
FJSVapcwv	8,9,10	PRIMEPOWER250/450/650/850/900/1500/2500
FJSVmasv	8,9,10	PRIMEPOWER250/450/650/850/900/1500/2500

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 T series, M series 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 3.1 is removed, the above drivers are not removed from the system.

Appendix F Mounting the DVD/CD

F.1 SPARC Enterprise T series, M series

F.1.1 Using a built-in DVD/CD drive

Machines other than SPARC Enterprise T1000 are equipped with main unit internal DVD/CD.

If you use internal DVD/CD drive allocated to a domain of SPARC Enterprise T series (except T1000), or SPARC Enterprise M series, you can mount a DVD/CD by the following procedure.

Regarding allocation of DVD/CD drive to a domain, please refer to "SPARC Enterprise Mxxxx series 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 DVD/CD.

However, if the directory already exists, you don't have to create it.

```
# mkdir -p /cdrom/cdrom0 <Return>
```

- 3) Mount the DVD/CD. Specify a DVD/CD drive for <DEVICE>.

```
# /usr/sbin/mount -F hsfs /dev/dsk/<DEVICE> /cdrom/cdrom0 <Return>
```

- 4) Move to the directory of the DVD/CD.

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

The DVD/CD becomes visible after completing the above steps.

F.1.2 Mounting a DVD/CD of an installation server

Please follow these steps to mount the DVD/CD inserted into a DVD/CD drive of the installation server.

1) Setting of an installation server

Add the following line to the `/etc/rmmount.conf` file in the install server.

```
share cdrom* -o ro,anon=0
```

2) Setting of a target machine of the installation

2-1) 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>
```

2-2) Mount a DVD/CD.

```
# 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.

2-3) Move to the directory of the DVD/CD.

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

F.2 PRIMEPOWER900/1500/2500

Use a DVD/CD drive of a system console.

1) 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>
```

2) Mount the DVD/CD.

```
# 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.

3) Move to the directory of the DVD/CD.

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

F.3 PRIMEPOWER250/450/650/850

Use a DVD/CD drive installed into a main unit.

F.3.1 Solaris 8 OS

- 1) Start the volume manager.

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

- 2) Move to the directory of the DVD/CD.

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

F.3.2 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 DVD/CD.
If such a directory already exists, another directory need not be created.

```
# mkdir -p /cdrom/cdrom0 <Return>
```

- 3) Mount the DVD/CD. Specify the DVD/CD device to be used in <DEVICE>.

```
# /usr/sbin/mount -F hsfs /dev/dsk/<DEVICE> /cdrom/cdrom0 <Return>
```

- 4) Move to the directory of the DVD/CD.

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

The DVD/CD can be referenced after the above work is completed.