INSTALLATION GUIDE
Enhanced Support Facility 3.0
for Solaris™ Operating System

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Preface

■ Purpose

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

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

■ Intended Readers

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

■ Organization

This document is organized as follows:

Chapter 1 Program Components
Chapter 1 explains the programs that constitute the system.

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

Chapter 3 Operating Environment
Chapter 3 explains the operating environment of this product.

Chapter 4 Restrictions and Notes
Chapter 4 explains restrictions and provides notes.

Chapter 5 Installation
Chapter 5 explains the procedure for installing Enhanced Support Facility.

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

Appendix
The Appendix explains supplementary items.
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Notations Used

System Control Facility driver is abbreviated to the following: SCF driver.
System Control Facility hardware is abbreviated to the following: SCF.
This document also uses abbreviations for the names of supported models.
For the relationship between abbreviations and platform names, see below.

<table>
<thead>
<tr>
<th>Model name</th>
<th>Abbreviation</th>
<th>Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMEPOWER 250/450</td>
<td>PW-P</td>
<td>FJSV, GPUZC-M(P)</td>
</tr>
<tr>
<td>PRIMEPOWER 650 (Model equipped with SPARC64™ GP) /850 (Model equipped with SPARC64™ GP)</td>
<td>PW-CM</td>
<td>FJSV, GPUSC-M</td>
</tr>
<tr>
<td>PRIMEPOWER 650 (Model equipped with SPARC64™ V) /850 (Model equipped with SPARC64™ V)</td>
<td>PW-CMZ</td>
<td>FJSV, GPUZC-M</td>
</tr>
<tr>
<td>PRIMEPOWER 1500 (Model equipped with SPARC64™ GP)</td>
<td>PW-CL</td>
<td>FJSV, GPUSC-L</td>
</tr>
<tr>
<td>PRIMEPOWER 900/1500 (Model equipped with SPARC64™ V) /2500</td>
<td>PW-CLZ</td>
<td>FJSV, GPUZC-L</td>
</tr>
<tr>
<td>SPARC Enterprise T1000/T2000</td>
<td>LE</td>
<td>SUNW, SPARC-Enterprise-T1000</td>
</tr>
<tr>
<td>SPARC Enterprise M4000/M5000/M8000/ M9000</td>
<td>CW</td>
<td>SUNW, SPARC-Enterprise-T2000</td>
</tr>
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</table>
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<table>
<thead>
<tr>
<th>Edition</th>
<th>Date</th>
<th>Description</th>
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<tr>
<td>1-A</td>
<td>August 29, 2006</td>
<td>First Edition</td>
</tr>
<tr>
<td>1-B</td>
<td>January 31, 2007</td>
<td>Changed descriptions in Appendix D.1.3. C120-E315-01ENZ2 (B)</td>
</tr>
<tr>
<td>2</td>
<td>April 18, 2007</td>
<td>Added URL for the reference to manuals for SPARC Enterprise Server. Added the installation procedure from Patch CD-ROM. Added the espatchadd(1M) command in Appendix A.4.</td>
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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>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Package</th>
<th>VL</th>
<th>Function</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Enhanced Support Facility Information Management</td>
<td>FJSVbse</td>
<td>3.0</td>
<td>Installation management of Enhanced Support Facility</td>
</tr>
<tr>
<td>2</td>
<td>DR, NGDR, IKPDR command</td>
<td>FJSVdrcmd</td>
<td>1.8</td>
<td>Dynamic Reconfiguration command (64 bit)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVdr</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVdropl</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SCF Driver</td>
<td>FJSVscd3</td>
<td>1.3</td>
<td>GP7000 series and PRIMEPOWER series</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVscr3</td>
<td>1.3.1</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVscu3</td>
<td>1.3.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVscuj3</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVpscd</td>
<td>1.1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>FJSVpscr</td>
<td>1.1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>FJSVpscu</td>
<td>1.1.1</td>
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<tr>
<td></td>
<td></td>
<td>FJSVpscuj</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>SCF/SCSI Fault LED support option</td>
<td>FJSVscfsc</td>
<td>1.0</td>
<td>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.</td>
</tr>
<tr>
<td>5</td>
<td>SunVTS,FJSVvts</td>
<td>SUNWvts</td>
<td>5.1</td>
<td>Software used to diagnose hardware controllers and devices on unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUNWvsdmn</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUNWvtsx</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVvts</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Web-Based Admin View</td>
<td>FJSVwvcnf</td>
<td>2.0.3</td>
<td>Common base for using the GUI (operation management view) of machine administration</td>
</tr>
<tr>
<td></td>
<td>WWW Server for Admin View</td>
<td>FJSVwvbs</td>
<td>2.1.2</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Machine Administration</td>
<td>FJSVmasv</td>
<td>2.2.3</td>
<td>Machine Administration is software that supports repair work for any failure that occurs, by monitoring the status of main unit hardware.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVmadm</td>
<td>1.2.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVcmmd</td>
<td>2.0</td>
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<tr>
<td></td>
<td></td>
<td>FJSVpmnd</td>
<td>1.2.3</td>
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<tr>
<td></td>
<td></td>
<td>FJSVamadm</td>
<td>1.0</td>
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<td>FJSVamcl</td>
<td>1.0</td>
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<td></td>
<td></td>
<td>FJSVaml</td>
<td>1.0</td>
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<td></td>
<td></td>
<td>FJSVmaom</td>
<td>2.0</td>
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</tr>
<tr>
<td>No.</td>
<td>Component</td>
<td>Package</td>
<td>VL</td>
<td>Function</td>
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<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>Remote Support</td>
<td>FJSVrilib</td>
<td>8.2.2</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVrags</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVrmaos</td>
<td>2.9</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>FJSVrdrda</td>
<td>2.9</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>FJSVracm</td>
<td>2.9</td>
<td></td>
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<tr>
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<td></td>
<td>FJSVsirms</td>
<td>4.0</td>
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<tr>
<td></td>
<td></td>
<td>FJSVcmrm</td>
<td>1.6</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>FJSVcmrm2</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVpnmr</td>
<td>1.3</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>FJSVamrm</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVlmrm</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Auto Power Control System</td>
<td>FJSVapcs</td>
<td>1.4.0</td>
<td>Automatic powering on or off of main cabinet power to a specified schedule</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVapcswv</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Server Default Configuration</td>
<td>FJSVdef</td>
<td>1.2.4</td>
<td>Server Default Configuration provides a function for improving server maintainability.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVssf</td>
<td>2.0.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVpnlx.us</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVpnl.us</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVwarn.us</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>System Data Output Tool</td>
<td>FJSVsnap</td>
<td>2.6</td>
<td>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.</td>
</tr>
<tr>
<td>12</td>
<td>Crush Dump Assistant</td>
<td>FJSVdmp</td>
<td>1.5</td>
<td>During the creation of a crash dump file at system reboot, Crash Dump Assistant invokes the &quot;System Data Output Tool&quot; to save necessary system data for problem investigation.</td>
</tr>
<tr>
<td>13</td>
<td>Auto Dump Analize Tool</td>
<td>FJSVana</td>
<td>2.1</td>
<td>During the creation of a crash dump file at system reboot, Crash Dump Assistant invokes the &quot;System Data Output Tool&quot; 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).</td>
</tr>
<tr>
<td>14</td>
<td>Reliability Driver</td>
<td>FJSVsec</td>
<td>1.2.2</td>
<td>Serial port driver</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.0.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>G-LAN error notification</td>
<td>FJSVgidad.us</td>
<td>2.0.1</td>
<td>GigabitEthernet interface error notification function</td>
</tr>
<tr>
<td>16</td>
<td>G-LAN MTU setting</td>
<td>FJSVgidr.us</td>
<td>2.0.0</td>
<td>The script to set MTU changes when using JumboFrame for GigabitEthernet interface.</td>
</tr>
<tr>
<td>17</td>
<td>HCP</td>
<td>FJSVhcep</td>
<td>1.0</td>
<td>XSCF firmware and utility</td>
</tr>
<tr>
<td>18</td>
<td>System Parameter Diagnosis</td>
<td>FJSVparam</td>
<td>1.1</td>
<td>System Parameter Diagnosis detects and reports system settings that may interfere with normal operation of the Solaris(TM) operating system, which may therefore change the settings.</td>
</tr>
<tr>
<td>19</td>
<td>HRM-S</td>
<td>FJSVhrm</td>
<td>3.0.0</td>
<td>HardwareResourceMonitor (referred to as HRM, in this document) is a maintenance work support tool.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FJSVhrmse</td>
<td>3.1.1</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Component</td>
<td>Package</td>
<td>VL</td>
<td>Function</td>
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<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>20</td>
<td>Tape Driver Configuration Tool</td>
<td>FJSVdcnf</td>
<td>1.2</td>
<td>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.</td>
</tr>
<tr>
<td>21</td>
<td>Patch Information Collect Command</td>
<td>FJSVpmgc</td>
<td>1.0</td>
<td>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.</td>
</tr>
</tbody>
</table>
### Chapter 2 Online Manuals

#### 2.1 Manuals Related to Enhanced Support Facility

The following manuals, in PDF format, are stored on the Software CDROM.

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

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Manual title</th>
<th>File name</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>System Parameter Diagnosis User's Guide</td>
<td>param_ome.pdf</td>
<td>Explains the system parameter diagnosis for detecting system-setting errors.</td>
</tr>
<tr>
<td>8</td>
<td>Tape driver configuration tool 1.2 User’s Guide</td>
<td>dcnf_ome.pdf</td>
<td>Explains the function that automatically sets a tape driver definition.</td>
</tr>
<tr>
<td>9</td>
<td>Enhanced Support Facility User's Guide for Redundant Console Path Features (PRIMEPOWER)</td>
<td>conspath_ome.pdf</td>
<td>Provides an outline of the console bus duplication function and explains how to operate the function.</td>
</tr>
<tr>
<td>10</td>
<td>Enhanced Support Facility User's Guide for System Control Facility (SCF) Driver (PRIMEPOWER)</td>
<td>scfdrv_ome.pdf</td>
<td>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.</td>
</tr>
<tr>
<td>No.</td>
<td>Manual title</td>
<td>File name</td>
<td>Explanation</td>
</tr>
<tr>
<td>-----</td>
<td>------------------------------------------------------------------------------</td>
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<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>12</td>
<td>Enhanced Support Facility User's Guide for eXtended System Control Facility (PRIMEPOWER)</td>
<td>xscf_ome.pdf</td>
<td>Explains the System Control Facility that supports monitoring control and operation/maintenance of the main units and systems of PRIMEPOWER series machines.</td>
</tr>
</tbody>
</table>

Manuals are stored in the following directories on the CD-ROM disk:

English manuals: /cdrom/cdrom0/manual.pdf/english/
2.2 Referencing Methods

2.2.1 Referencing methods (PDF format)

Manuals in the PDF file format are stored on the CD-ROM disk. The latest version of Adobe(R) Reader(R) or Acrobat Reader from Adobe Systems Incorporated is required for viewing a PDF file. Download the latest version of Adobe(R) Reader(R) or Acrobat Reader appropriate to your environment from the Adobe Systems Incorporated's Web site.

2.2.1.1 Using a PC

1) Insert the CD-ROM disk into the CD-ROM drive.
2) Use Acrobat Reader to open the file to be referenced.
Example: Referencing the Installation Guide (English)
CD-ROM drive\MANUAL.PDF\ENGLISH\INSTALL-GUIDE_OME.PDF

2.2.1.2 Using a Solaris(TM) operating system

1) Insert the CD-ROM disk into the CD-ROM drive.
2) Use Acrobat Reader to open the file to be referenced.
Example: Referencing the Installation Guide (English)

2.3 Printed Manual (Supplied with the Product)

None
Chapter 3 Operating Environment

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

3.1 Software Environment

1) Basic Software prerequisites

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Basic Software</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Solaris 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To use this software on PRIMEPOWER system, the following packages are required.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SUNWbtool, SUNWcslx, SUNWltilk, SUNWxwince, SUNWdtcor, SUNWctpls, SUNWesu, SUNWxwfnt, SUNWxirl, SUNWwoo, SUNWxildlh, SUNWxwrtl, SUNWscpu, SUNWlibC, SUNWotecfr, SUNWipmg, SUNWpper, SUNWpecu, SUNWppmn, SUNWpsf, SUNWpsr, SUNWpsu, SUNWmp, SUNWxcu4, SUNWdoc, SUNWipc, SUNWipcx, SUNWibCx, SUNWmfrun, SUNWxilow, SUNWj2rt, SUNWfocfr, SUNWxwplt, SUNWxwcft, SUNWxwopt, SUNWjvjr, SUNWauadio, SUNWolrte, SUNWdtbas, SUNWvjjit, SUNWdtddte, SUNWdtdmn, SUNWoldtst, SUNWcar, SUNWxvm, SUNWddrr, SUNWdrrx, SUNWxsi18n, SUNWjexcel, SUNWpiclr, SUNWpiclu, SUNWpiclx</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● 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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● For PRIMEPOWER650 (Model equipped with SPARC64™ V)/ 850(Model equipped with SPARC64™ V), Solaris 8 2/02 Rev.4 can be used.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● For PRIMEPOWER250/450/900/1500/2500, Solaris 8 2/02 Rev.4 can be used.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● If you select the software group that contains &quot;Developer Solaris Software Group&quot; when you install Solaris, you can install Solaris and the required packages at the same time.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Solaris 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To use this software on PRIMEPOWER system, the following packages are required.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SUNWbtool, SUNWcslx, SUNWltilk, SUNWxwince, SUNWdtcor, SUNWctpls, SUNWesu, SUNWxwfnt, SUNWxirl, SUNWwoo, SUNWxildlh, SUNWxwrtl, SUNWscpcr, SUNWscpu, SUNWlibC, SUNWxcu4, SUNWdoc, SUNWipc, SUNWibCx, SUNWmfrun, SUNWxilow, SUNWcpp, SUNWzilh, SUNWxwpfl, SUNWxwcf, SUNWxwopt, SUNWolrte, SUNWdtbas, SUNWjj3rt, SUNWj3jrt, SUNWdrr.us, SUNWdrrx.us, SUNWcar, SUNWxvm, SUNWxsi18n, SUNWlicom, SUNWweurfr, SUNWxwaxc, SUNWij2rf, SUNWij3rf, SUNWij5rf, SUNWij7rf, SUNWij8rf, SUNWij9rf, SUNWij15rf, SUNWxwarf, SUNWkxmft, SUNWxvmft, SUNWx5mft, SUNWxxfnt, SUNWweudf,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● For PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850 (Model equipped with SPARC64™ GP), Solaris 9 12/02 or later.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● For PRIMEPOWER250/450/650(Model equipped with SPARC64™ V)/850(Model equipped with SPARC64™ V)/ 900/1500, Solaris 9 4/03 or later.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● For PRIMEPOWER2500, Solaris 9 12/03 or later.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● If you select the software group that contains &quot;Developer Solaris Group&quot; when you install Solaris, you can install Solaris and the required packages at the same time.</td>
<td></td>
</tr>
</tbody>
</table>
To use this software on PRIMEPOWER and GP7000F systems, the following packages are required.

If you select the software group that contains "Developer Solaris Group" when you install Solaris, you can install Solaris and the required packages at the same time.
2) Software requirements

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of software product</th>
<th>Package name</th>
<th>Version</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Java (TM)2 Runtime Environment, Standard Edition</td>
<td>j2re-1_3_1_17-winodws-i.exe</td>
<td>1.3.1</td>
<td>Needed to use Web-Based Admin View in Microsoft(R) Windows. This is stored on Enhanced Support Facility CD-ROM.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>j2re-1_4_2_11-winodws-i.exe</td>
<td>1.4.2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Java(TM) Plug-in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10.1.2.2,REV=1999.12.06.10.02 over</td>
<td>Needed to use Web-Based Admin View in Solaris OS.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20.1.2.2,REV=1999.10.14.18.04 over</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Java(TM)2 Runtime Environment, Standard Edition</td>
<td>j2re-1_3_1_17-solari-sparc.sh</td>
<td>1.3.1</td>
<td>Needed to use Web-Based Admin View in Solaris OS. This is stored on Enhanced Support Facility CD-ROM.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>j2re-1_4_2_11-solari-sparc.sh</td>
<td>1.4.2</td>
<td></td>
</tr>
</tbody>
</table>

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

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

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

3) Excluded software

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of software product</th>
<th>Package name</th>
<th>Version</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>System Console Software</td>
<td>All packages</td>
<td>1.0 and later</td>
<td></td>
</tr>
</tbody>
</table>

4) Patch requirements

None
3.2 Hardware Environment

The following hardware environment is required when using this software.

1) Main memory

Main memory of 64Mbytes or more
For PRIMEPOWER900/1500/2500, main memory must be 512Mbytes or more.

2) Hardware requirements

None

3.3 Static Disk Requirements

The disk space requirements for this software are shown below.

3.3.1 Disk requirements

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Directory</th>
<th>Disk space requirement (in Mbytes)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Solaris 8</td>
<td>Solaris 9</td>
</tr>
<tr>
<td>1</td>
<td>root</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>2</td>
<td>/usr</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>3</td>
<td>/var</td>
<td>22.5</td>
<td>40.5</td>
</tr>
<tr>
<td>4</td>
<td>/export/home</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>/opt *</td>
<td>193.0</td>
<td>270.0</td>
</tr>
</tbody>
</table>

*) 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>
<thead>
<tr>
<th>No.</th>
<th>Via spool directory</th>
<th>Directory</th>
<th>Disk space requirement (in Mbytes)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No</td>
<td>/tmp</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>
3.4 Dynamic Disk Resources

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

3.4.1 Disk space requirements

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

PW-P: PRIMEPOWER250/450
PW-CLZ: PRIMEPOWER900/1500 (Model equipped with SPARC64™ V)/2500
PW-CL: PRIMEPOWER1500 (Model equipped with SPARC64™ GP)
PW-CM: PRIMEPOWER650 (Model equipped with SPARC64™ V)/850 (Model equipped with SPARC64™ V)
PW-CM: PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850 (Model equipped with SPARC64™ GP)
LE: SPARC Enterprise T1000/T2000
CW: SPARC Enterprise M4000/M5000/M8000/M9000

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

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

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

### 3.6 Swap Space

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

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

4.1 Restrictions

None

4.2 Cautions when Upgrading

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

4.2.1 User data compatibility

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

4.2.2 Environment definition file compatibility

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

4.3 Notes

The following notes apply to the installation of this software.
Refer also to Appendix D, "Notes."

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enhanced Support Facility Information Management</td>
<td>You cannot install this software onto the System Management Console of PRIMEPOWER900/1500/2500. Install this product in the global zone. This product cannot be installed in the non-global zone. If esfadd is executed in the non-global zone, it terminates with the following message: esfadd: Error: This product cannot be installed in the non-global zone. If esfadd -c is executed in the non-global zone, it terminates with the following message: grep: /var/sadm/system/admin/INST_RELEASE cannot be opened. esfadd: Error: The operating system does not support this product.</td>
</tr>
<tr>
<td>2</td>
<td>SCF/SCSI Fault LED support option</td>
<td>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.</td>
</tr>
<tr>
<td>3</td>
<td>SunVTS, FJVTS</td>
<td>If the SUNWvts package is installed, &quot;/opt/SUNWvts/README&quot; is stored on the disk. Although it contains an explanation of the SUNWodu package, this package is not supported on PRIMEPOWER. If you use Solaris 10 on PRIMEPOWER, important notes are applicable. Refer to Appendix D.3, &quot;Notes on FJVTS.&quot;</td>
</tr>
<tr>
<td>No.</td>
<td>Component</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>-----------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| 4   | Web-Based Admin View/WWW Server for Admin View | The user group "wvroot" is automatically registered after installing the product. Register user name to this "wvroot" group when using the functions Environment Setting and Logging view menus by logging in with a user name which is not "root". This component uses the port numbers shown below. Make sure that the port numbers do not conflict with those used by other applications. 8081, 9397, 9398, 9399: For TCP/IP protocol 9396: For UDP protocol The port numbers used by this component are added to the /etc/inet/services file after this product is installed. If you change port numbers, refer to the "Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER)." If you install the Enhanced Support Facility on the boot environment mounted by Solaris Live Upgrade or Custom JumpStart, the following message may appear and the registration of a "wvroot" user group may fail.  
```bash
## Executing postinstall script.

Bus Error - core dumped
```
Even if this message appears, there is no problem with the installation of the Enhanced Support Facility. However, if you operate GUI screen of Web-Based Admin View as a non-root user, please execute the following command on a server on which you installed the Enhanced Support Facility to add the wvroot group.
```bash
# groupadd wvroot
```
| 5   | Tape Driver Configuration Tool | 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: DDS4 : PW023DT3, PW023DT4, PW0G3DT1 DAT72: PW023DT5, PW023DT6, PW0R3DT3, PW0G3DT2 |
| 6   | Patch Information Collect Command | 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. 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 If the above patch is not applied, executing this command will cause the system to shut down after displaying the following message:
```bash
ERROR: fjcollect: Command execution failed: /usr/sbin/patchadd
```
| 7   | SCF driver | 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. |
Chapter 5 Installation

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

Installation

Installation in this mode requires no option commands.
This chapter explains the following procedures:
New installation (5.2, "Installation")
Update installation (5.3, "Update Installation")
Deletion (5.4, "Removing the software")

Extended installation

Installation in this mode requires option commands.
Chapter 6 explains the following procedures:

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

5.1 Models to be Installed

For PRIMEPOWER900/1500/2500

To install the Enhanced Support Facility on PRIMEPOWER800/900/1000/1500/2000/2500 and GP7000F Models 1000/2000, use the CD-ROM drive connected to the System Management Console.
If you operate the OS console on the System Management Console, use the RC2000. For more detailed information about System Management Console and RC2000, refer to "System Console Software User's Guide."
For SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850

For the SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000 and PRIMEPOWER 250/450/650/850, install ESF using the CD-ROM drive built in the main unit.
For information on network mount, see Appendix D.1, "Mounting the CD-ROM."
- For initial installation, see Section 5.2, "Installation."
- If an old version of Enhanced Support Facility is already installed, see Section 5.3, "Update Installation."

5.2 Installation

5.2.1 Notes on installation

| User authority | 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. Also, for the login shell of root users and adm users written in the "etc/passwd" file, set a shell program that can be used as a command interpreter (for example, /sbin/sh). If you set a shell program that cannot be used as a command interpreter (for example, /bin/false), Enhanced Support Facility installation will fail. |
| Single user mode | Before installing this software, start the system in, and then mount the required file system. |
| Mounting the file system | |

5.2.2 Installation time

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

5.2.3 Installing Enhanced Support Facility

1. Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive.
2. Type "su" at the shell prompt.
   
   % su <Return>
   
3. Enter the root (superuser) password.
   
   Password: password <Return>
   
4. Enter the OpenBoot environment.
   
   # /usr/sbin/shutdown -y -g0 -i0 <Return>
   
5. Boot the system in single-user mode.
   
   (?) ok boot -s <Return>
   
   When the following message is displayed, enter the password.
   
   INIT: SINGLE USER MODE
   Type Ctrl-d to proceed with normal startup, (or give root password for system maintenance): password <Return>
   
6. Mount the required file system.
   
   # /usr/sbin/mountall -l <Return>

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7. Activate the network.
   Activate the network is different for the Solaris version being used.
   Each work method is explained separately as follows for Solaris10 or Solaris8 or Solaris9.

   **Case A** For Solaris10
   ```
   # svcadm enable /network/initial <Return>
   ```

   **Case B** For Solaris8 or Solaris9
   a-1) Activate the network
   ```
   # /etc/init.d/inetinit start <Return>
   ```
   a-2) Start the RPC service.
   ```
   # /etc/init.d/rpc start <Return>
   ```
   a-3) Activate the network interface.
   ```
   # /etc/init.d/inetsvc start <Return>
   ```
   a-4) Start the nfs client.
   ```
   # /etc/init.d/nfs.client start <Return>
   ```

8. Mount the CD-ROM.
   The mounting procedure depends on the model.
   For details of mounting the CD-ROM, see Appendix D.1, "Mounting the CD-ROM."

9. Install Enhanced Support Facility with the esfadd command.
   ```
   # bin/esfadd <Return>
   ```

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

   **Example**
   ```
   Enhanced Support Facility 3.0 will be installed.
   Platform: FJSV,GPUC-M
   OS Release: Solaris 8
   Do you want to continue with this installation? [yes or no ?]: yes
   <Return>
   ```

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

   **Example**
   ```
   esfadd: ERROR: The directory (/opt) where the packages will be
   installed does not exist.
   The /opt mount by interrupting installation.
   
   Select (n) no stop install.
   Select (y) yes continue to install. [yes or no ?]:
   <Return>
   ```

   Note: If the message shown above is output even though the file system is mounted, the package may have been only partly installed. Enter "yes" to continue installation.
**When an old version of Enhanced Support Facility is installed**

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

**Example**

<table>
<thead>
<tr>
<th>Enhanced Support Facility will be updated to Enhanced Support Facility 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform: FJSV,GPUZC-M</td>
</tr>
<tr>
<td>OS Release: Solaris 8</td>
</tr>
</tbody>
</table>

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

---

10. In case of SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000, the following drivers are installed.
   - FUJITSU PCI GigabitEthernet 3.0
   - FUJITSU ULTRA LVD SCSI Host Bus Adapter Driver 2.0

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

**Installation of the bundled driver starts.**

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

11. Unmount the CD-ROM drive.

   For Solaris 8

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

   For Solaris9 or Solaris10

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

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

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

13. Insert the Manuals & Patches 3.0A10 CD-ROM into the CD-ROM drive to install patches.

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

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

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

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

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

   **Example**

<table>
<thead>
<tr>
<th>Enhanced Support Facility 3.0 correction patches will be applied.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform: FJSV,GPUZC-M (P)</td>
</tr>
<tr>
<td>OS Release: Solaris 10</td>
</tr>
</tbody>
</table>

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

15. Unmount the CD-ROM drive.
For Solaris 8

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

For Solaris 9 or Solaris 10

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

or

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

16. Eject the Manuals & Patches 3.0A10 CD-ROM.

17. Reboot the system.

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

18. The superuser starts the volume manager.

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

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

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

**Example**

```
PKNAME      VERSION     REVISION
---------------------------
FJSVbse      3.0         2006.12.1200
FJSVdrcmd    1.8         2003.10.0200
:            :
FJSVparam    1.0         2003.10.2800
---------------------------
ESF PATCH_VERSION = 3.0A10_20070417
```

**Note**

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

Note 1  Cancel installation if the following occurs:

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

| A version of the <pkginst> package is already installed on this machine. |
| Current administration does not allow new instances of an existing package to be created, nor existing instances to be overwritten. |
| No changes were made to the system. |
| There are n more packages to be installed. |
| Do you want to continue with installation [y,n,?] |

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

Note 2-1  The following message may be displayed when installing SUNWvts or SUNWvtsx packages on Solaris 8, but the installation will complete normally.

Note: The SyMON configd package is not installed. This package is required in order to support the SunVTS physical configuration mapping mode. SunVTS will function normally in its default logical configuration mapping mode. However, if physical configuration mapping is desired, please install the correct SyMON configd package for your platform:

* For Desktop platform, install SUNWeswsa package.
* For WorkGroup Server platform, install SUNWeswga package.
* For Enterprise Server platform, install SUNWsycfd package.

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

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 ... | -l ]

Note 2-3  The following message may be displayed when installing SUNWvts package on Solaris 10, but the installation will complete normally.

Example

inetconv: Notice: Service manifest for 100235/1 already generated as /var/svc/manifest/network/rpc/100235_1-rpc_ticotsord.xml, skipped
inetconv: Notice: Service manifest for 100083/1 already generated as /var/svc/manifest/network/rpc/100083_1-rpc_tcp.xml, skipped
inetconv: Notice: Service manifest for 100068/2-5 already generated as /var/svc/manifest/network/rpc/100068_2-5-rpc_udp.xml, skipped
Sending signal to inetd to read the modified conf file...
/var/sadm/pkg/SUNWvts/install/i.inetdconf: usage: kill [ [ -sig ] id ... | -l ]
**Note 2-4**
The following message may be displayed when installing FJSVscr3 or FJSVpscr or FJSVdef or FJSVcmd packages, but the installation will complete normally.

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

**Note 2-5**
Web-Based Admin View does not support operation in the Dynamic Host Configuration Protocol (DHCP) environment.
If Web-Based Admin View is installed in the DHCP environment, the following message is displayed during installation:

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

<BE_NAME>: Nothing is displayed during normal installation.
During installation using Solaris Live Upgrade, the root directory in the new boot environment (example: /art.copy1) is displayed.
Even if the message above is displayed, it does not affect the installation of Enhanced Support Facility.
```

**Note 2-6**
The following warning message may appear during the installation of Enhanced Support Facility into Solaris 10, but there is no problem with the installation of Enhanced Support Facility.

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

**Note 3  Messages output during patch application**

- When patches are supplied with the product
After package installation is finished, the message shown below is output and patches are automatically applied.

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

```
/cdrom/cdrom0/ESFREMCSP/README
```

```
Enhanced Support Facility 3.0 collection patches will be applied.
Checking installed patches...
Verifying sufficient filesystem capacity (dry run method)...
Installing patch packages...
  :
  :
  :
---- esfpatchadd result. ----
Applied patches:
  912542-01
```

**Note 3-1**
If the following message is displayed, check the system environment. See Appendix C.2, "When the patches fail to be applied" for details.

```
---- esfpatchadd result. ----
Patches not applied:
  patch
```
Note 3-2
There is no problem with patch application if the following messages are displayed with Solaris 10.

```
touch: /var/sadm/patch/.patchaddLock cannot create
chmod: WARNING: can't access /var/sadm/patch/.patchaddLock
/usr/lib/patch/patchadd[27]: /var/sadm/patch/.patchaddLock: cannot create
```
## 5.2.5 Environment setting after installation

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SCF Driver</td>
<td>If you use the RAS control device driver, you need to change the PATH environment variable. Refer to Section 1.3, &quot;Server Setup&quot; in &quot;Enhanced Support Facility User's Guide&quot; for the procedure.</td>
</tr>
<tr>
<td>2</td>
<td>SCF/SCSI Fault LED support option</td>
<td>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, &quot;Setting for when the server is installed&quot; in Section 3.3, &quot;SCF/SCSI Fault LED Support Option [SPARC Enterprise Server]&quot; of &quot;Enhanced Support Facility User's Guide.&quot;</td>
</tr>
</tbody>
</table>
| 3   | Machine Administration | 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.

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.

To change the System Management Console setting and start communication:
1. Execute the `/usr/sbin/FJSVmadm/scslset` command, and change the System Management Console settings.

```
# /usr/sbin/FJSVmadm/scslset host name of the System Management Console> <Return>
```
2. Start system communication with the System Management Console.

```
# /usr/sbin/FJSVmadm/cmdevsnd -i <Return>
```

4 | Web-Based Admin View/ WWW Server for Admin View | For Web-Based Admin View client setup, refer to Section 3.1, "Preparations for Starting the Web-Based Admin View menu" in "Web-Based Admin View Operation Guide".

- If the browser works incorrectly, remove the "swingall.jar" file, which was copied with the browser on the client, using the description in Section 3.1.3.2, "Required for the Web Browser Environment" in the "Web-Based Admin View Operation Guide".

- The Web browser must be restarted, after installing this software.

- The working environment for Web-Based Admin View is set automatically (based on the network environment) when Enhanced Support Facility is installed. If the Solaris network environment is changed after installing Enhanced Support Facility, Web-Based Admin View may not work correctly. Refer to Chapter 6, "Changing the Settings" in "Web-Based Admin View Operation Guide' for how to change the working environment for Web-Based Admin View.

- When Enhanced Support Facility is pre-installed, all settings of Web-Based Admin View are configured as localhost (127.0.0.1). To use Web-Based Admin View, you must change these IP address settings used by Web-Based Admin View. Refer to Section 6.1, "Changing an IP Address on the Public LAN" and Section 6.3, "Changing the management server" in "Web-Based Admin View Operation Guide V20."
### No. Component Description

**4 Web-Based Admin View/WWW Server for Admin View**
- Web-Based Admin View and WWW Server for Admin View automatically use the network ports when the system boots. The numbers 8081, 9396, 9397, 9398, and 9399 are preset as the default network ports. If, for security purposes, you need to stop using these network ports, reboot the system after executing the following command.

```
# /opt/FJSVwvbs/etc/bin/wvrcscript uninstall <Return>
```

This command makes Web-Based Admin View and WWW Server for Admin View default to non-automatic start. Note that in this case, the following functions and products can’t be used from the Web browser. Use functions such as CUI as required.

- Machine Administration
- SynfinityDisk
- SynfinityCluster
- SynfinityFile/Global, SynfinityFile/Global POWER Edition
- Multipath Disk Control
- PRIMECLUSTER

Once the Web-Based Admin View and WWW Server for Admin View functions have been reset to automatic start, reboot the system after executing the following command.

```
# /opt/FJSVwvbs/etc/bin/wvrcscript install <Return>
```

- If the environment setting file of the FJSVwvbs package is restored using the wvEnvload command and the procedure described in Section 5.3.7.4, "Web-Based Admin View/WWW Server for Admin View" in Solaris 8, the environmental settings of Java in Web-Based Admin View will be changed to JDK 1.1 family (JDK 1.1.x). If you want to change these settings again, refer to Section 6.2.3, "Changing Java Environment" in "Web-Based Admin View Operation Guide".

**5 Remote Support**
- The remote support function's investigation data collection function

For Solaris 8 or 9

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 /etc/system file (The following example increases the value of system parameter "Semmni" to 20.):

```
set semsys:seminfo_semmni = 20
```

* Semmni: Number of semaphore identifiers. The setting value can be checked with the sysdef(1M) command.

For Solaris10

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 prctl(1) command to increase the value of project.max-sem-ids.

For details, refer to the manual page of the prctl(1) command.

In the following example, the value of project.max-sem-ids for project name user.root is 138.

```
prctl -n project.max-sem-ids -t privileged -r -v 138 -i project.user.root
```
5.2.6 Applying modifications

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

5.3.1 Notes on installation

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

5.3.2 Installation time

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

5.3.3 Checking the system environment

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

3. Enter the root (superuser) password.

   Password: password <Return>

   #

4. Enter the OpenBoot environment.

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

5. Boot the system in single-user mode.

   (?) ok boot -s <Return>

   When the following message is displayed, enter the password.

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

6. Mount the required file system.

   # /usr/sbin/mountall -l <Return>
7. Activate the network.

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

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

Case A  For Solaris10

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

Case B  For Solaris8, Solaris9

b-1) Activate the network

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

b-2) Start the RPC service.

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

b-3) Activate the network interface.

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

b-4) Start the nfs client.

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

8. Mount the CD-ROM.

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

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

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

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

```
Check the package that will be updated.

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

The packages being updated will be displayed.

**Example**

```
PKNAME    CURRENT VERSION         FUTURE VERSION
-----------------------------------------------
FJSVbse    2.2,REV=2002.02.1100      3.0,REV=2006.12.1200
            :                          :
FSUNlic    6.1.8,REV=2000.10.1100   6.2,REV=2002.03.2500
-----------------------------------------------
Please save data according to the INSTALLATION GUIDE if the package(s) for which the save of data is necessary exist in the above-mentioned package(s).
```
Refer to the table below to check whether there is an environment settings file that needs to be saved in advance for a package to be updated.

<table>
<thead>
<tr>
<th>Component name</th>
<th>Package name</th>
<th>Environment setting file</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR, NGDR Command</td>
<td>FJSVdr</td>
<td>/etc/opt/FJSVdr/reply/C/dr_op</td>
</tr>
<tr>
<td></td>
<td>FJSVdrcmd</td>
<td></td>
</tr>
<tr>
<td>SDF Driver</td>
<td>FJSVscr3</td>
<td>/etc/opt/FJSVhwr/pwrcrl.property</td>
</tr>
<tr>
<td></td>
<td>FJSVscu3</td>
<td>/etc/opt/FJSVhwr/scf.conf</td>
</tr>
<tr>
<td></td>
<td>FJSVpscr</td>
<td>/etc/opt/FJSVhwr/adrc.conf</td>
</tr>
<tr>
<td>Web-Based Admin View/WWW Server for Admin View</td>
<td>FJSVwvbs</td>
<td>Provides the wvEnvsave command to save/restore the environment setting file.</td>
</tr>
<tr>
<td>Machine Administration</td>
<td>FJSVmasv</td>
<td>Provides the savlogs command to save/restore the environment setting file.</td>
</tr>
<tr>
<td>Remote Support</td>
<td>FJSVcmmd</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FJSVvlib</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FJSVvagt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FJSVrmaos</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FJSVcmrm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FJSVpmrm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FJSVpmnd</td>
<td></td>
</tr>
<tr>
<td>Auto Power Control System</td>
<td>FJSVapcs</td>
<td>/var/opt/FJSVapcs/*</td>
</tr>
</tbody>
</table>

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

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

```
esfadd: INFO: This software is not installed on the system.
```
5.3.4 Saving the environment setting file

5.3.4.1 DR Command

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

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

5.3.4.2 SCF Driver

Save the SCF Driver environment setting files.

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

5.3.4.3 SCF/SCSI Fault LED support option

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

```
- For SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000

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

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

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

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

5.3.4.5 Machine Administration/Remote Support

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

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

5.3.4.6 Auto Power Control System

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

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

5.3.4.7 System Management Console

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

```
# cp /etc/FJSVscslhostname save_file <Return>
```
5.3.5 Installing Enhanced Support Facility

1. Install Enhanced Support Facility with the esfadd command.

   # bin/esfadd <Return>

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

   Enhanced Support Facility will be updated to Enhanced Support Facility 3.0
   Platform: FJSV, GPUZC-M
   OS Release: Solaris 8
   Do you want to continue with this update? [yes or no?]: yes <Return>

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

     esfadd: ERROR: The directory (/opt) where the packages will be installed does
     not exist.
     Do you want to continue with this installation? [yes or no?]:

     Note 1: If the message shown above is output even though the file system is mounted, the package
     may have been installed only partly. Enter "yes" to continue installation.

   - If an old version of Enhanced Support Facility is not installed
     If the following message is displayed, initial installation is required. Enter "yes" to continue installation.

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

2. In case of SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000, the following drivers are installed.
   - FUJITSU PCI GigabitEthernet 3.0
   - FUJITSU ULTRA LVD SCSI Host Bus Adapter Driver 2.0

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

   Installation of the bundled driver starts.

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

3. Unmount the CD-ROM drive.
   For Solaris 8
   # cd / <Return>
   For Solaris9 or Solaris10
   # cd / <Return>
   # /usr/sbin/umount /cdrom <Return>
   or
   # cd / <Return>
   # /usr/sbin/umount /cdrom/cdrom0 <Return>

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

5. Insert the Manuals & Patches 3.0A10 CD-ROM into the CD-ROM drive to install patches.
   If you can not see the content of the CD-ROM, please refer to “Appendix D.1 Mounting the CD-ROM” to mount it
   again.

6. Move to the directory of the esfpatchadd directory to execute the esfpatchadd command.
 cd /cdrom/ESFREMCSP <Return>
# bin/espatchadd <Return>

or

 cd /cdrom/cdrom0/ESFREMCSP <Return>
# bin/espatchadd <Return>

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

**Example**

Enhanced Support Facility 3.0 correction patches will be applied.

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

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

7. Unmount the CD-ROM drive.
   For Solaris 8
   
   # cd / <Return>

   For Solaris 9 or Solaris 10
   
   # cd / <Return>
   # /usr/sbin/umount /cdrom <Return>

   or

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

8. Eject the Manuals & Patches 3.0A10 CD-ROM.

9. Reboot the system.

   # /usr/sbin/shutdown –y –g0 –i6 <Return>

10. The superuser starts the volume manager.

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

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

   # /opt/FJSVbse/bin/esfver –l <Return>

**Example**


<table>
<thead>
<tr>
<th>PKGNAME</th>
<th>VERSION</th>
<th>REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FJSVbse</td>
<td>3.0</td>
<td>2006.12.1200</td>
</tr>
<tr>
<td>FJSVdrcmd</td>
<td>1.8</td>
<td>2003.10.0200</td>
</tr>
<tr>
<td>:</td>
<td>:</td>
<td></td>
</tr>
<tr>
<td>FJSVparam</td>
<td>1.0</td>
<td>2003.10.2800</td>
</tr>
</tbody>
</table>

ESF PATCH_VERSION = 3.0A10_20070417

**Note**

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

Note 1  **Cancel installation if the following occurs:**

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

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

No changes were made to the system.

There are no 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 SUNWsycfd package.

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

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 ... | -l ]
```
Note 2-3
The following message may be displayed when installing SUNWvts package on Solaris 10, but the installation will complete normally.

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

Note 2-4
The following message may be displayed when installing FJSVscr3 or FJSVpscr or FJSVdef or FJSVcmd packages, but the installation will complete normally.

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

Note 2-5
Web-Based Admin View does not support operation in the Dynamic Host Configuration Protocol (DHCP) environment.

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

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

<BE_NAME>: Nothing is displayed during normal installation.
During installation using Solaris Live Upgrade, the root directory in the new boot environment (example: /.art.copy1) is displayed.
Even if the message above is displayed, it does not affect the installation of Enhanced Support Facility.
```

Note 2-6
The following warning message may appear during the installation of Enhanced Support Facility into Solaris 10, but there is no problem with the installation of Enhanced Support Facility.

```
WARNING: setting mode of </etc/opt/FJSVwvbs> to default mode (755)
```
Note 3: Messages output during patch application

- When patches are available

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

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

/cdrom/cdrom0/ESFREMCP/README

Enhanced Support Facility 3.0 collection patches will be applied.

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

Note 3-1 If the following message is displayed, check the system environment. See Appendix C.2, "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.

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

5.3.7.3 SCF/SCSI Fault LED support option

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

- For SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000

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

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

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

```
# /etc/opt/FJSVwvbs/etc/bin/wvEnvload save_file
```

5.3.7.5 Machine Administration/Remote Support

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

```
# /usr/sbin/FJSVmadm/savelogs -r save_file_directory
```

5.3.7.6 Auto Power Control System

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

```
# /usr/bin/cpio -iu -I save_file
```

5.3.7.7 System Management Console

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

```
# cp save_file /etc/FJSVscslhostname
```
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>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SCF Driver</td>
<td>If you use the RAS control device driver, you need to change the PATH environment variable. Refer to Section 1.3, &quot;Server Setup&quot; in &quot;Enhanced Support Facility User's Guide&quot; for procedure.</td>
</tr>
<tr>
<td>2</td>
<td>SCF/SCSI Fault LED support option</td>
<td>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, &quot;Setting for when the server is installed&quot; in Section 3.3, &quot;SCF/SCSI Fault LED Support Option [SPARC Enterprise Server]&quot; of &quot;Enhanced Support Facility User's Guide.&quot;</td>
</tr>
</tbody>
</table>
| 3   | Machine Administration | 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.

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.

To change the System Management Console setting and start communication:
1. Execute the /usr/sbin/FJSVmadm/scsiset command, and change the System Management Console settings.

```bash
# /usr/sbin/FJSVmadm/scsiset <host name of the System Management Console> <Return>
```
2. Start system communication with the System Management Console.

```bash
# /usr/sbin/FJSVmadm/cmdevsnd -i <Return>
```
<table>
<thead>
<tr>
<th>No.</th>
<th>Component Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Web-Based Admin View/WWW Server for Admin View</td>
</tr>
</tbody>
</table>

- For Web-Based Admin View client setup, refer to Section 3.1, "Preparations for Starting the Web-Based Admin View menu" in "Web-Based Admin View Operation Guide".
- If the browser works incorrectly, remove the "swingall.jar" file, which was copied with the browser on the client, using the description in Section 3.1.3.2, "Required for the Web Browser Environment" in the "Web-Based Admin View Operation Guide".
- The Web browser must be restarted, after installing this software.
- The working environment for Web-Based Admin View is set automatically (based on the network environment) when Enhanced Support Facility is installed. If the Solaris network environment is changed after installing Enhanced Support Facility, Web-Based Admin View may not work correctly. Refer to Chapter 6, "Changing the Settings" in "Web-Based Admin View Operation Guide" for how to change the working environment for Web-Based Admin View.
- When Enhanced Support Facility is pre-installed, all settings of Web-Based Admin View are configured as localhost (127.0.0.1). To use Web-Based Admin View, you must change these IP address settings used by Web-Based Admin View. Refer to Section 6.1,"Changing an IP Address on the Public LAN" and Section 6.3, "Changing the management server" in "Web-Based Admin View Operation Guide V2.0."
- Web-Based Admin View and WWW Server for Admin View automatically use the network ports when the system boots. The numbers 8081, 9396, 9397, 9398, and 9399 are preset as the default network ports. If, for security purposes, you need to stop using these network ports, reboot the system after executing the following command.

```
# /opt/FJSVwvbs/etc/bin/wvrcscript uninstall <Return>
```

This command makes Web-Based Admin View and WWW Server for Admin View default to non-automatic start. Note that in this case, the following functions and products can’t be used from the Web browser. Use functions such as CUI as required.

- Machine Administration
- SynfinityDisk
- SynfinityCluster
- SynfinityFile/Global, SynfinityFile/Global POWER Edition
- Multipath Disk Control
- PRIMECLUSTER

Once the Web-Based Admin View and WWW Server for Admin View functions have been reset to automatic start, reboot the system after executing the following command.

```
# /opt/FJSVwvbs/etc/bin/wvrcscript install <Return>
```

- If the environment setting file of the FJSVwvbs package is restored using the wvEnvload command and the procedure described in Section 5.3.7.4, "Web-Based Admin View/WWW Server for Admin View" in Solaris 8, the environmental settings of Java in Web-Based Admin View will be changed to JDK 1.1 family (JDK 1.1.x). If you want to change these settings again, refer to Section 6.2.3, "Changing Java Environment" in "Web-Based Admin View Operation Guide".

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

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

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

For PRIMEPOWER900/1500/2500

To remove the Enhanced Support Facility, use the esfrm command on the CD-ROM.
As PRIMEPOWER900/1500/2500 are not supplied with a CD-ROM drive, use the CD-ROM drive connected to
the System Management Console.
If you operate the OS console on the System Management Console, use the RC2000. For more detailed
information about System Management Console and RC2000, refer to “System Console Software User’s
Guide.”

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

Note
- If you need to make local CDs available to other systems, add the following line to the /etc/rmmount.conf
  file.
  
  \texttt{share \textit{cdrom*} -o ro,anon=0}

5.4.1 Removing the software

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

| Mounting the file system |

| 1. Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive. |
| 2. Type “su” at the shell prompt. |
| 3. Enter the root(superuser) password. |
| 4. Enter the OpenBoot environment. |
| 5. Boot the system in single-user mode. |

When the following message is displayed, enter the password.

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

6. Mount the required file system.

\texttt{#/usr/sbin/mountall -l} <Return>

7. Activate the network.
Activate the network is different for the Solaris version being used.
Each work method is explained separately as follows for Solaris10 or Solaris8 or Solaris9.
Case A  For Solaris10
\texttt{#/usr/sbin/shutdown -y -g 0 -i 0 <Return>}
Case B  For Solaris8 or Solaris9

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b-1) Activate the network

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

b-2) Start the RPC service.

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

b-3) Activate the network interface.

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

b-4) Start the nfs client.

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

8. Mount the CD-ROM.

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

9. Remove Enhanced Support Facility with the esfrm command.

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

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

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

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

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

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

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

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

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

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

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

**Note1**

Please interrupt esfrm as shown in the figure below when packages preceded by "**" exist. You will need
to remove the cause of the "**" display. Afterwards, execute "esfrm" again, and then use "part" to ensure
package(s) still marked with "**", are not deleted.
Enhanced Support Facility 3.0 will be removed.

**FJSVbse**  
Enhanced Support Facility Information Management  
(sparc) 3.0, REV=2006.12.1200

**FJSVscdx**  
System Control Driver (SCF and Fault LED) (64-bit)  
(sparc.sun4us) 1.9.1, REV=2003.11.1100

*FJSVwvcnf*  
WWW Server for Admin View  
(sparc) 1.5, REV=2002.11.2700

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

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

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

Please select. [no, all or part]:

**Note2**
The following message may be displayed when removing FJSVrlib package, but the removal will be complete normally.

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

**Note3**
The following message may be displayed when removing FJSVmadm or FJSVmasv package, but the removal will be complete normally.

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

**Note4**
The following message may be displayed when removing SUNWvt package on Solaris 8, 9, but the removal will complete normally.

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

**Note5**
The following messages may be displayed when removing SUNWvts package on Solaris 10, but the removal will complete normally.

**Example**

```
inetconv: Notice: Service manifest for 100235/1 already generated as /var/svc/manifest/network/rpc/100235_1-rpc_ticotsord.xml, skipped
inetconv: Notice: Service manifest for 100083/1 already generated as /var/svc/manifest/network/rpc/100083_1-rpc_tcp.xml, skipped
inetconv: Notice: Service manifest for 100068/2-5 already generated as /var/svc/manifest/network/rpc/100068_2-5-rpc_udp.xml, skipped
```

Sending signal to inetd to read the restored conf file...

```
inetconv: Notice: Service manifest for 100068/2-5 already generated as /var/svc/manifest/network/rpc/100068_2-5-rpc_udp.xml, skipped
```

**Note6**
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
```

**Note7**
The following message may be displayed when removing FJSVmadm package on Solaris 8, 9, but the removal will complete normally.

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

**Note8**
There is no problem in the deletion though the following messages might be displayed in the zone environment of Solaris 10 while deleting the package.
pkgrm: ERROR: unable to perform preremoval check of package <FJSVxxxx> in zone <zonearea>

10. Unmount the CD-ROM.
    
    # cd / <Return>
    # /usr/sbin/umount /cdrom <Return>
    
    or
    
    # cd / <Return>
    # /usr/sbin/umount /cdrom/cdrom0 <Return>

11. Reboot the system.
    
    # /usr/sbin/shutdown -y -g0 -i6 <Return>

12. The superuser starts the volume manager.
    
    # /etc/init.d/volmgt start <Return>

Chapter 6 Extended Installation

6.1 OS Upgrade Installation

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

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

6.1.1 Upgrade workflow

The upgrade workflow is shown in Figure 6.1.
For detailed procedures, refer to the respective sections indicated in individual frames.

![Figure 6.1 Workflow for upgrading](image)

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

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

6.1.3 Uninstalling Enhanced Support Facility

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

6.1.4 Installing the OS

When installing the Solaris OS, refer to the following:

For PRIMEPOWER
- Refer to the "Hardware Platform Guide."

For SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000
- Refer to Sun manuals.

6.1.5 Installing Enhanced Support Facility

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

6.1.6 Restoring the environment setting file of Enhanced Support Facility

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

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

6.2.1 Support environment

- Operating Environment:
  Solaris 9  Solaris 10

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

6.2.2 Procedure

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

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

1) Copy each CD-ROM image of Enhanced Support Facility 3.0 and Manual& Patches 3.0A10 to each directory having a common parent directory.

2) Share the common parent directory beforehand so that the target server can recognize the common parent directory. Each CD-ROM image of Enhanced Support Facility 3.0 and Manual& Patches 3.0A10 should be placed in some directories under the common parent directory.

Example : Execution of the share command

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

6.2.2.2 Installation script for Enhanced Support Facility

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

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

2) State a command for installing Enhanced Support Facility 3.0.
   Specify the following options for the esfadd command:
   `-R < installation directory >
   Specify /a for JumpStart.
With the esfadd command, restrains inquiries.
Use only when using Custom JumpStart.

3) State the command for installing Manual & Patches 3.0A10.
Specify the following options for the esfpatchadd command:
- R < installation directory >
  Specify /a for JumpStart.
- A
  With the esfpatchadd command, restrains inquiries.
  Use only when using Custom JumpStart.

Example: Finish script
/export/home/ESF: The parent directory common to directories having the copies of the CD-ROM images
esf30: Name of directory to which the CD-ROM image of Enhanced Support Facility 3.0 is copied
esf30a10: Name of directory to which the CD-ROM image of Manual & Patches 3.0A10 is copied

```
mount -F nfs <install_server_IP>:/export/home/ESF /a/mnt
/a/mnt/esf30/bin/esfadd -R /a -n
/a/mnt/esf30a10/ESFREMCSP/bin/esfpatchadd -R /a -A
```

6.2.3 Notes

- For initial install only.
  Please specify initial_install or flash_install for the JumpStart Install_type profile keyword.
  If the installation of Enhanced Support Facility fails, you need to reinstall the operating system.
6.3 Flash Archive Installation

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

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

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

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

<table>
<thead>
<tr>
<th>Model name</th>
<th>Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMEPOWER250/450</td>
<td>FJSV, GPUZC-M(P)</td>
</tr>
<tr>
<td>PRIMEPOWER650 (SPARC64™ GP-installed model) /850 (SPARC64™GP-installed model)</td>
<td>FJSV, GPUSC-M</td>
</tr>
<tr>
<td>PRIMEPOWER650 (SPARC64™ V-installed model)/850 (SPARC64™ V-installed model)</td>
<td>FJSV, GPUZC-M</td>
</tr>
<tr>
<td>PRIMEPOWER900/1500 (SPARC64™ V-installed model)/2500</td>
<td>FJSV, GPUZC-L</td>
</tr>
<tr>
<td>SPARC Enterprise M4000/M5000/M8000/M9000</td>
<td>SUNW, SPARC-Enterprise</td>
</tr>
</tbody>
</table>

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

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

Figure 6.2 Workflow for creating a flash archive

6.3.1.1 Installing the OS

When installing the Solaris OS, refer to the following:

For **PRIMEPOWER**
- Refer to the "Hardware Platform Guide."

For **SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000**
- Refer to Sun manuals.

6.3.1.2 Installing Enhanced Support Facility

After OS installation is finished, install Enhanced Support Facility. For details, refer to Section 5.2.3, "Installing Enhanced Support Facility."
6.3.1.3 Creating a flash archive

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

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

name: a name to be specified for the flash archive.
options: flarcreate command line options
* Some of the available options are listed in the table below:

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

path: The path of the directory in which the archive file is to be saved.
filename: Name to be specified for the archive file.
  * When archive creation is completed successfully, the flarcreate command returns end code 0.
  * If archive creation is unsuccessful, the flarcreate command returns an end code other than 0.
  * Attributes such as permission of the created archive file need not be changed.

6.3.1.4 Notes on creating a flash archive

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

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

<table>
<thead>
<tr>
<th>[flash_prof]</th>
</tr>
</thead>
<tbody>
<tr>
<td>install_type</td>
</tr>
<tr>
<td>archive_location</td>
</tr>
<tr>
<td>partitioning</td>
</tr>
<tr>
<td>filesys</td>
</tr>
<tr>
<td>filesys</td>
</tr>
<tr>
<td>filesys</td>
</tr>
<tr>
<td>filesys</td>
</tr>
<tr>
<td>filesys</td>
</tr>
<tr>
<td>filesys</td>
</tr>
</tbody>
</table>

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

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

6.3.2.2 Installing a flash archive in the clone system

Solaris 8, 9, or 10 can be installed in a clone system using a flash archive from the Solaris DVD or CD.
For details, refer to the "Solaris Installation Guide."
6.3.3 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>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1   | Machine Administration | If the following message is displayed with the PRIMEPOWER900/1500/2500, the connection with the system console must be set.  
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.  
[System console connection procedure]  
1. Execute the following command to set information on the connection to the system console:  
   # /usr/sbin/FJSVmadm/scslset system console host name<Return>  
2. Execute the following command to start communication with the system console:  
   # /usr/sbin/FJSVmadm/cmdevsnd -i<Return> |
| 2   | Web-Based Admin View/WWW Server for Admin View | To change the Web-Based Admin View operating environment, refer to Chapter 6, "Changing Settings," in the "Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER)." |
| 3   | Tape Driver Definition Tool | If the tape device is not recognized after installation, take the following setting steps:  
1. # /var/opt/FJSVdcnf/bin/fjcnfset st<Return>  
2. # /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. |
6.3.4 Notes on flash archiving

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

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Symptom</td>
<td>The log of the master system is not deleted but is taken over. Note this when checking the log.</td>
</tr>
<tr>
<td></td>
<td>Applicable model</td>
<td>All models</td>
</tr>
<tr>
<td></td>
<td>Applicable package</td>
<td>All packages</td>
</tr>
<tr>
<td></td>
<td>Displayed message</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Preventive measures</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Symptom</td>
<td>Web-Based Admin View outputs the messages shown below when the system starts.</td>
</tr>
<tr>
<td></td>
<td>Applicable model</td>
<td>PRIMEPOWER250/450/650/850/900/1500/2500</td>
</tr>
<tr>
<td></td>
<td>Applicable package</td>
<td>FJSVwvbs, FJSVwvcnf</td>
</tr>
<tr>
<td></td>
<td>Displayed message</td>
<td>wvcheckconf Error: [local:mip] invalid Hostname/IpAddress[192.0.0.1], should be valid HostName/IpAddress on this host.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wvcheckconf Error: [local:httpip] invalid Hostname/IpAddress[192.0.0.1], should be valid HostName/IpAddress on this host.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wvcheckconf: 'webview.cnf' has not been modified by some Errors. FJSVwvbs: 'webview.cnf' abnormal</td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>Although settings according to the machine environment are required, the environment of the master system is taken over if a flash archive is used.</td>
</tr>
<tr>
<td></td>
<td>Preventive measures</td>
<td>Make settings according to the machine environment by referring to Chapter 6 in the &quot;Enhanced Support Facility User's Guide for Web-Based Admin View (PRIMEPOWER).&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Symptom</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Applicable model</td>
<td>PRIMEPOWER900/1500/2500</td>
</tr>
<tr>
<td></td>
<td>Applicable package</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Displayed message</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>A process called evsndd implements communication. Although two evsndd processes, parent and child, are required, only one is available.</td>
</tr>
<tr>
<td></td>
<td>Preventive measures</td>
<td>Refer to the description about machine administration in Section 5.2.6, &quot;Environment setting after installation.&quot;</td>
</tr>
<tr>
<td>4</td>
<td>Symptom</td>
<td>A tape device may not be recognized automatically.</td>
</tr>
<tr>
<td></td>
<td>Applicable model</td>
<td>All models</td>
</tr>
<tr>
<td></td>
<td>Applicable package</td>
<td>FJSVdcnf</td>
</tr>
<tr>
<td></td>
<td>Displayed message</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Preventive measures</td>
<td>Execute the following command, and then reboot the system. &quot;/var/opt/FJSVdcnf/bin/fjcnfset st&quot;</td>
</tr>
<tr>
<td>No.</td>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>---------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>Symptom</td>
<td>Executing &quot;pkgchk -n&quot; displays ERROR.</td>
</tr>
<tr>
<td></td>
<td>Applicable model</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Applicable package</td>
<td>FJSVpscr, FJSVscr3, FJSVdef, FJSVcmd</td>
</tr>
<tr>
<td></td>
<td>Displayed message</td>
<td>ERROR: /var/spool/cron/crontabs/root group name &lt;sys&gt; expected &lt;other&gt; actual</td>
</tr>
<tr>
<td></td>
<td>Cause</td>
<td>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 &lt;sys&gt; to &lt;other&gt;. This is why ERROR is output.</td>
</tr>
<tr>
<td></td>
<td>Preventive measures</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>Symptom</td>
<td>When the system starts for the first time after application, a model may be mistakenly recognized and displayed.</td>
</tr>
<tr>
<td></td>
<td>Applicable model</td>
<td>All models</td>
</tr>
<tr>
<td></td>
<td>Applicable package</td>
<td>Packages related to machine administration</td>
</tr>
</tbody>
</table>
|     | Displayed message | /etc/rc2.d/S30SMAWubft: disable FJSVmadm SES/SAF-TE monitoring ...done.  
/etc/rc2.d/S30SMAWubft: cleanup SES/SAF-TE processor device links...done.  
/etc/rc2.d/S30SMAWubft: updating HW_CONFIG data base...done.  
/etc/rc2.d/S30SMAWubft: start UPS BBU Fan Temperature Daemon...done.  
Configuring network interface addresses: fjgi0 hme0.  
PW450Q                                                                 |
|     | Cause         | When the system starts for the first time after installation using a flash archive, WSA executes the model check command of the machine administration before machine administration operation begins, and mistakenly recognizes the model. |
|     | Preventive measures | Reboot the system to clear the problem.                                                                                                  |
6.4 Specifying a Component Group for Installation

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

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

6.4.1 Notes on using the component group specification option

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

6.4.2 Component groups

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

<table>
<thead>
<tr>
<th>Component group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td>Component group of basic functions of Enhanced Support Facility. <strong>Mandatory components</strong> 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.</td>
</tr>
<tr>
<td>BASIC</td>
<td>CORE component group plus user utility components such as SunVTS, FJVTLS, and automatic power control.</td>
</tr>
<tr>
<td>FULL</td>
<td>BASIC component group plus GUI operation function. All components including Web-Based Admin View /WWW Server for Admin View, Machine Administration GUI package and Auto Power Control System GUI package will be installed.</td>
</tr>
</tbody>
</table>

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

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

**Note:**
The component groups are mutually exclusive; only one can be selected at a time.
6.4.3 Specifying a component group for installation

To specify a component group for installation, use the following component group specification option. Format: `esfadd [-c] [-O COMPONENT–GROUP]` For COMPONENT–GROUP, specify the component group to be installed. If the `-c` option is specified, you can confirm the package that will be installed.

Execution example (PRIMEPOWER450, Solaris 8, and BASIC component installation)
1. Confirm the package to be installed.
   
   ```bash
   # bin/esfadd -c -O BASIC <Return>
   ``
   The following message is displayed.
   
   Check the package that will be updated.
   - Platform: FJSV,GPUZC-M(P)
   - OS Release: Solaris 8
   - COMPONENT GROUP: BASIC
   
   If this software is not installed, the following message is displayed.
   ```
   esfadd: INFO: This software is not installed on the system.
   ```

2. To perform installation, specify the option in the `esfadd` command.
   
   ```bash
   # bin/esfadd -O BASIC <Return>
   ``
   The following message is displayed.
   
   Enhanced Support Facility 3.0 will be installed.
   - Platform: FJSV,GPUZC-M(P)
   - OS Release: Solaris 8
   - COMPONENT GROUP: BASIC
   
   Do you want to continue with this installation? [yes or no ?]: yes <Return>

   Note 1

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

   ```
   Enhanced Support Facility 3.0 will be installed.
   - Platform: FJSV,GPUZC-M(P)
   - OS Release: Solaris 8
   - COMPONENT GROUP: BASIC
   NOTE: The following package(s) not included in the specified component group is installed.
   PACKAGENAME1 PACKAGENAME2
   Do you want to continue with this installation? [yes or no ?]:
   ```
   Type "no" to exit the installation and check the system environment.
   If the package has been installed by other software, there is no problem about this message.
   Please continue the installation.

For notes on installation, see Section 5.3.5, "Installing Enhanced Support Facility."
3. To check the version of each installed package, use the esfver command (as in a normal installation).

```
/home/FJSVbse/bin/esfver -1 <Return>
```

The version of each package is displayed.

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

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

```
/home/bin/esfrm <Return>
```

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

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

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

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

Please select. [no, all or part]:
```
6.5 Solaris Live Upgrade

Enhanced Support Facility 2.4.1 and later support Solaris Live Upgrade.

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

6.5.1 Restrictions

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

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

6.5.2 Upgrade procedure

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

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

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

11) Restore remaining environment settings files to “New Boot Environment”.
   - 6.5.8 Restoring the Environment after Starting the New Boot Environment
   - 6.5.8.1 Restoring the environment
   - 6.5.8.2 Restarting Web-Based Admin View/WWW Server for Admin View
   - 6.5.8.3 Environment setting after installation

6.5.2.1 Preparation for creating “New Boot Environment” and confirming environment

6.5.2.1.1 Checking the system environment

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

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

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

Example: When Enhanced Support Facility 2.4.1 is installed:

```
VERSION=2.4.1 REVISION=2004.07.2000,
```

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

6.5.3 Creating a New Boot Environment and Deleting Software

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

6.5.3.1 Creating and mounting a new boot environment

1. Use the `lucreate` command to create a new boot environment.
   Note:
   For information about installing Solaris Live Upgrade and creating a new boot environment, refer to the documents provided by Sun Microsystems, Inc.

2. Mount the new boot environment.

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

ALTERNATIVE: Indicates the new boot environment name.

3. The mount point is reported.

```
./alt.ALTERNATIVE
```
6.5.3.2 Saving the environment settings files

6.5.3.2.1 Package containing environment settings files

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

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

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

<table>
<thead>
<tr>
<th>Package name</th>
<th>Environment settings file</th>
</tr>
</thead>
<tbody>
<tr>
<td>FJSVdr</td>
<td>/etc/opt/FJSVdr/reply/C/dr_op</td>
</tr>
<tr>
<td>FJSVdrcmd</td>
<td></td>
</tr>
<tr>
<td>FJSVscr3</td>
<td>/etc/opt/FJSVhwr/pwrctl.property</td>
</tr>
<tr>
<td>FJSVscu3</td>
<td>/etc/opt/FJSVhwr/scf.conf</td>
</tr>
<tr>
<td>FJSVwvbs</td>
<td>/etc/opt/FJSVhwr/adrc.conf</td>
</tr>
<tr>
<td>FJSVmasv</td>
<td></td>
</tr>
<tr>
<td>FJSVcmnd</td>
<td></td>
</tr>
<tr>
<td>FJSVapcs</td>
<td>/var/opt/FJSVapcs/*</td>
</tr>
</tbody>
</table>

The wvEnvsave command is provided to save/restore the environment setting file.

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

<table>
<thead>
<tr>
<th>Package name</th>
<th>Environment settings file</th>
</tr>
</thead>
<tbody>
<tr>
<td>FJSVscr3</td>
<td>/etc/opt/FJSVhwr/pwrctl.property</td>
</tr>
<tr>
<td>FJSVpscr</td>
<td>/etc/opt/FJSVhwr/scf.conf</td>
</tr>
<tr>
<td>FJSVwvbs</td>
<td></td>
</tr>
<tr>
<td>FJSVmasv</td>
<td></td>
</tr>
<tr>
<td>FJSVrlib</td>
<td></td>
</tr>
<tr>
<td>FJSVragt</td>
<td></td>
</tr>
<tr>
<td>FJSVrmaos</td>
<td></td>
</tr>
<tr>
<td>FJSVcmrm</td>
<td></td>
</tr>
<tr>
<td>FJSVcmnd</td>
<td></td>
</tr>
<tr>
<td>FJSVpmrm</td>
<td></td>
</tr>
<tr>
<td>FJSVpmnd</td>
<td></td>
</tr>
<tr>
<td>FJSVapcs</td>
<td>/var/opt/FJSVapcs/*</td>
</tr>
</tbody>
</table>

The savelogs command is provided to save/restore the environment setting file.
6.5.3.2.2 Saving environment settings files

For PRIMEPOWER900/1500/2500:

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

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

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

Save the SCF Driver environment setting files.

- For the PRIMEPOWER900/1500/2500,

| RC2000 | cd ./alt. <Return> |
| RC2000 | ls ./.etc/opt/FJSVhwr/pwrctl.property ./etc/opt/FJSVhwr/scfconf ./.etc/opt/FJSVhwr/adrc.conf | cpio -o -0 save_file <Return> |

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

| RC2000 | /etc/opt/FJSVwwbs/etc/bin/wvEnvsave save_file <Return> |

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

| RC2000 | /usr/sbin/FJSVmadm/savelogs -mo save_file_directory <Return> |

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

| RC2000 | cd / <Return> |
| RC2000 | find /var/opt/FJSVapcs/ -print -depth | /usr/bin/cpio -o -0 save_file <Return> |

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

| RC2000 | cp /etc/FJSVscs1hostname save_file <Return> |

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

Save the SCF driver settings file.

| # cd ./alt. <Return> |
| # ls ./etc/opt/FJSVhwr/pwrctl.property ./etc/opt/FJSVhwr/scf.conf | /usr/bin/cpio -o -0 save_file <Return> |

Save the SCF/SCSI Fault LED support option setting files (for SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000).

| # cd ./alt. <Return> |
| # ls ./etc/opt/FJSVhwr/adrc.conf | cpio -o -0 save_file name <Return> |

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

| # /etc/opt/FJSVwwbs/etc/bin/wvEnvsave save_file <Return> |

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

| # /usr/sbin/FJSVmadm/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 -0 save_file <Return> |
6.5.3.3 Deleting the software from new boot environment

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

1. Mount the Enhanced Support Facility CD-ROM.
   For PRIMEPOWER900/1500/2500, use the CD-ROM drive connected to the system console.
   a) Insert the Enhanced Support Facility CD-ROM into the CD-ROM drive connected to the system console.
   b) Mount the CD-ROM.

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

*host:* Indicates the host name of system management console.

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

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

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

or

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

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

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

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

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

**Error:**

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

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

```
Enhanced Support Facility 2.4.1 will be removed.

FJSVbse Enhanced Support Facility Information Management
       (sparc) 2.4.1,REV=2004.07.2000
       :
       :
FJSVcpudp 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]:

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

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

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

The following message will be displayed. Type "yes" to proceed
- For Enhanced Support Facility 2.4.1, 2.5 and 2.5.1

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

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

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

- For Enhanced Support Facility 2.6 and 3.0.

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

Note 3: If the message shown below is displayed, enter "no" to quit processing.

When an asterisk (*) precedes a package name (as shown below), that package is required by another package. Do not delete a package on which another package depends. If you attempt to delete such a package, the warning message shown below appears. Enter "no" to quit processing.

When an asterisk (*) precedes the package name as shown below, stop esfrm, and then correct the package dependency situation that causes the asterisk (*) to be displayed. After making the correction, restart the esfrm operation. Use "part," to delete all packages not marked with an asterisk (*).
Enhanced Support Facility 2.4.1 will be removed.

<table>
<thead>
<tr>
<th>Package</th>
<th>Description</th>
<th>Version</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>FJSVbse</td>
<td>Enhanced Support Facility Information Management</td>
<td>(sparc) 2.4.1</td>
<td>REV=2004.07.2000</td>
</tr>
<tr>
<td>*FJSVwvcnf</td>
<td>WWW Server for Admin View</td>
<td>(sparc) 2.0.3</td>
<td>REV=2002.04.1800</td>
</tr>
<tr>
<td>FJSVcpupd</td>
<td>CPU patrol diagnosis</td>
<td>(sparc) 1.5</td>
<td>REV=2002.11.2700</td>
</tr>
</tbody>
</table>

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

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

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

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

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

cron may not be running - call your system administrator

6.5.3.4 Unmounting the new boot environment

1. Move to the root directory.

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

2. Unmount the new boot environment.

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

   **ALTERNATIVE**: Indicates the new boot environment name.

6.5.3.5 Removing the CD-ROM

1. Eject the CD-ROM.
6.5.4 Upgrading the Operating Environment

Use Solaris Live Upgrade to update the system operating environment.

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

6.5.5 Installing Software

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

6.5.5.1 Mounting the new boot environment

1. Mount the newly created boot environment.

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

ALTERNATIVE: Indicates the new boot environment name.
```

2. The mount point is reported.

```bash
/./alt.ALTERNATIVE
```

6.5.5.2 Installing this software in the new boot environment

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

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

   For PRIMEPOWER900/1500/2500 use the CD-ROM drive connected to the system console.
   a) Insert the Enhanced Support Facility 3.0 CD-ROM into the CD-ROM drive connected to the system console.
   b) Mount the CD-ROM.

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

host: Indicates the host name of system management console.
```

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

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

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

or

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

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

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

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

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

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

Messages similar to the following appears. Confirm the displayed information. If the information is correct, type "yes."
Example: For Enhanced Support Facility 3.0 on PRIMEPOWER450:

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

Next, the system confirms that the –R option has been specified. Type “yes”.

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

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

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

- A version of the <pkginst> package is already installed on this machine. Current administration does not allow new instances of an existing package to be created, nor existing instances to be overwritten.
- No changes were made to the system.
- There are n more packages to be installed.

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

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

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

```bash
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 FJSVcmd packages, but the installation will complete normally.

- cron may not be running - call your system administrator

4. Unmount the CD-ROM.
   For Solaris 8
   ```bash
   # cd / <Return>
   ```
   For Solaris 9 or Solaris 10
   ```bash
   # cd / <Return>
   # /usr/sbin/umount /cdrom <Return>
   ```
   or
   ```bash
   # cd / <Return>
   # /usr/sbin/umount /cdrom/cdrom0 <Return>
   ```

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

6. Insert the Manuals & Patches 3.0A10 CD-ROM into the CD-ROM drive to mount the CD-ROM.
   Please refer to 1) to learn how to mount the CD-ROM.

7. Move to the directory where the CD-ROM is mounted to execute the esfpatchadd command with the following procedure.
   ```bash
   # cd /cdrom/ESFREMCSP <Return>
   # bin/esfpatchadd -R /.alt.ALTERNATIVE <Return>
   ```
   or
   ```bash
   # cd /cdrom/cdrom0/ESFREMCSP <Return>
   ```
# bin/esfpatchadd -R ./alt.ALTERNATIVE <Return>

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

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

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

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

If the information is correct, type "yes."

Enhanced Support Facility 3.0 correction patches will be applied.

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

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

8. Eject the Manuals & Patches 3.0A10 CD-ROM.
6.5.6 Restoring Environment Data in the New Boot Environment

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

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

1. For PRIMEPOWER900/1500/2500

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

   Restore the settings file for the SCF driver.
   
   For PRIMEPOWER900/1500/2500:

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

   Restore the settings file for the automatic power control system.

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

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

   ```
   RC2000 # /usr/sbin/FJSVmadm/savelogs –r –R / .alt.ALTNATIVE
   ```

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

   ```
   RC2000 # cp save_file / .alt.ALTNATIVE/etc/FJSVscslhostname <Return>
   ```

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

   Restore the settings file for the SCF driver.

   ```
   # cd / .alt.ALTNATIVE <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>
   # chgrp root ./etc/opt/FJSVhwr/adrc.conf <Return>
   ```

   Restore the SCF/SCSI Fault LED support option setting files (for SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000).

   ```
   # cd / .alt.ALTNATIVE <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.ALTNATIVE save_file_directory
   ```
6.5.7 Switching the Boot Environment

6.5.7.1 Unmounting the new boot environment

1. Move to the root directory.
   
   ```
   # cd /
   
   <Return>
   ```

2. Use the luumount command to unmount the new boot environment.
   
   ```
   # /usr/sbin/luumount ALTERNATIVE <Return>
   ```

   **ALTERNATIVE**: Indicates the new boot environment name.

6.5.7.2 Switching the active boot environment

1. Use the luactivate command to switch from the active boot environment to the new one.
   
   ```
   # /usr/sbin/luactivate ALTERNATIVE <Return>
   ```

6.5.7.3 Starting the system in the new boot environment

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

1. Reboot the system.
   
   ```
   # /usr/sbin/shutdown -y -g0 -i6 <Return>
   ```

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

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

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

6.5.8.1 Restoring the environment

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

1.  Mount the original boot environment.

   ```
   # /usr/sbin/lumount ORIGINAL <Return>
   
   ORIGINAL: Indicates the original boot environment name.
   ```

2.  The mount point is reported.

   ```
   /.alt.ORIGINAL
   ```

The boot environment is mounted at the reported mount point.

If an environment settings file has been saved from the boot environment before switching, restore saved files as follows. (i.e. save destination is under the reported mounted point.) Use the wvEnvload command to restore the environment settings file for Web-Based Admin View/WWW Server for Admin View.

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

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

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

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

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

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

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

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

6.5.8.3 Environment setting after installation

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

6.6 Installation in a Partition

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

If you install Enhanced Support Facility 3.0 by using the partition installer, please be sure to install Enhanced Support Facility 3.0 and Manuals & Patches 3.0A10.

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 ESF, and drivers.

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

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

If you install Enhanced Support Facility 3.0 by using the unified installer, please be sure to install Enhanced Support Facility 3.0 and Manuals & Patches 3.0A10.

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

A.1 esfadd (1M)

NAME
esfadd · Install Enhanced Support Facility onto the system

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

DESCRIPTION
esfadd determines the system platform automatically and installs Enhanced Support Facility onto the system using the Enhanced Support Facility media (CD-ROM). If an older version 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:

<table>
<thead>
<tr>
<th>Platform</th>
<th>OS version</th>
<th>package directory</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW-CLZ</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/Platform/C_L/Z/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/Platform/C_L/Z/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/Platform/C_L/Z/10</td>
</tr>
<tr>
<td>PW-CMZ</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/Platform/C_M/Z/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/Platform/C_M/Z/9</td>
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<td>&lt;mount_point&gt;/Platform/C_M/Z/10</td>
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<td>PW-CL</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/Platform/C_L/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/Platform/C_L/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/Platform/C_L/10</td>
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<tr>
<td>PW-CM</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/Platform/C_M/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/Platform/C_M/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/Platform/C_M/10</td>
</tr>
<tr>
<td>PW-P</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/Platform/P/8</td>
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<td>Solaris 9</td>
<td>&lt;mount_point&gt;/Platform/P/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/Platform/P/10</td>
</tr>
<tr>
<td>CW</td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/Platform/CW/10</td>
</tr>
<tr>
<td>LE</td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/Platform/LE/10</td>
</tr>
</tbody>
</table>
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
esffrm(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 ESF after restoring the system. (Refer to appendix C.1.1.)

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

A.2 esfrm (1M)

NAME
esfrm · Remove Enhanced Support Facility from the system

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

DESCRIPTION
esfrm removes a previously installed Enhanced Support Facility from the system. The default state for the command is in interactive mode, meaning that prompt messages are given during processing to allow the administrator to confirm the actions being taken for the removal of the Enhanced Support Facility. Non-interactive mode can be requested with the `-n` option. When this command is invoked, the package list to be removed is displayed, and then the prompt with the input "all" displayed. The esfrm commands operates as follows after the prompt.
1. For the package(s) with the “*” (warning) mark is displayed in the package list, exist.
   - "all": The esfrm command removes all packages in the list.
   - "no": The esfrm command terminates, and 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:

- \(-n\)
  - Removes Enhanced Support Facility from the system in non-interactive mode. Care must be taken as even if there is
    a need for interaction, esfrm will remove packages, when this option is used.

- \(-R \text{mountpoint}\)
  - Enhanced Support Facility will be removed from the Boot Environment specified by the \text{mountpoint}.

EXIT STATUS

The following exit values are returned:

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

SEE ALSO

esfadd(1M), pkgrm(1M)

NOTES

- Be aware that other optional products may have dependencies on the packages in Enhanced Support
  Facility. In this case, esfrm will display WARNING messages as the result of dependency checking and ask
  you to verify the removal of the package.
  Do not remove any package on which other software products depend, and type "y" to continue execution.
  Note that if the \(-n\) option is specified, such important dependencies will not be checked.

- A “*” (warning) mark will be displayed when a package installed on the system is newer than the package
  on the CD-ROM. Be careful when removing the package because the package cannot be reinstalled with
  the CD-ROM. There may be other products on the system that require the package and removing the
  package may cause serious problems.
A.3 esfver (1M)

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

SYNOPSIS
esfver [-l] [ -R mountpoint ]

DESCRIPTION
esfver displays the version of the installed Enhanced Support Facility. When –l option is used, the version of each package included in the Enhanced Support Facility is displayed.

OPTIONS
The following option is available:
-1
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)

EXAMPLES

EXAMPLE1
#
/opt/FJSVbse/bin/esfver
ESF PATCH_VERSION = 3.0A00_20061212
#

EXAMPLE2 Example of displaying each package.
#
/opt/FJSVbse/bin/esfver -l

PKNAME VERSION  REVISION
-----------------------
FJSVbse  3.0    2006.12.1200
FJSVscdx 1.9.2  2004.12.2100
... 
FJSVhrm  2.0.3  2005.02.1500
FJSVdcnf 1.0    2005.01.3100
-----------------------
ESF PATCH_VERSION = 3.0A00_20061212
#

82
EXAMPLE3 Example where two packages or more exist.

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

VERSION=3.0   REVISION=2006.12.1200,

ESF PATCH_VERSION = 3.0A00_20061212

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

**Note**

Please restore the system. Please refer to Appendix C.1.1.
NAME
esfpatchadd - Applies patches to installed Enhanced Support Facility

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

DESCRIPTION
The esfpatchadd command identifies a platform of the system automatically and applies patches to installed
Enhanced Support Facility 3.0 from distributed Manuals & Patches 3.0A10 media (CD-ROM).

OPTIONS
The following options are available:
-R mountpoint
    Enhanced Support Facility will be installed into the Boot Environment specified by mountpoint
-d directory
    Specify the directory where the patches of Enhanced Support Facility are stored.
    A full pathname should be given to the directory.

The directories containing the patches are as follows.

<table>
<thead>
<tr>
<th>Platform</th>
<th>OS version</th>
<th>Patch directory</th>
</tr>
</thead>
<tbody>
<tr>
<td>PW-CLZ</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_L_Z/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_L_Z/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_L_Z/10</td>
</tr>
<tr>
<td>PW-CMZ</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_M_Z/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_M_Z/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_M_Z/10</td>
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<tr>
<td>PW-CL</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_L/8</td>
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<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_L/9</td>
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<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_L/10</td>
</tr>
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<td>PW-CM</td>
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<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_M/8</td>
</tr>
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<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_M/9</td>
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<td>&lt;mount_point&gt;/ESFREMCSP/Platform/C_M/10</td>
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<tr>
<td>PW-P</td>
<td>Solaris 8</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/P/8</td>
</tr>
<tr>
<td></td>
<td>Solaris 9</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/P/9</td>
</tr>
<tr>
<td></td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/P/10</td>
</tr>
<tr>
<td>CW</td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/CW/10</td>
</tr>
<tr>
<td>LE</td>
<td>Solaris 10</td>
<td>&lt;mount_point&gt;/ESFREMCSP/Platform/LE/10</td>
</tr>
</tbody>
</table>

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

esfpatchadd: ERROR: The specified source directory is incorrect.

EXIT STATUS
The following exit values are returned:
0  Successful execution.
1  Fatal error.
2  Usage or Warning.
3  Interruption.

SEE ALSO
esfadd(1M), esfrm(1M), pkgrm(1M), pkgadd(1M), patchadd(1M)
## Appendix B Component Programs by Model

### Abbreviation of model name
- **PW-P**: PRIMEPOWER250/450
- **PW-CL**: PRIMEPOWER1500 (Model equipped with SPARC64™ GP)
- **PW-CLZ**: PRIMEPOWER900/1500 (Model equipped with SPARC64™ V)
- **PW-CM**: PRIMEPOWER650 (Model equipped with SPARC64™ GP)/850 (Model equipped with SPARC64™ GP)
- **PW-CMZ**: PRIMEPOWER650 (Model equipped with SPARC64™ V)/850 (Model equipped with SPARC64™ V)
- **LE**: SPARC Enterprise T1000/T2000
- **CW**: SPARC Enterprise M4000/M5000/M8000/M9000

### Component group
- **C**: CORE
- **B**: BASIC
- **F**: FULL
- **O**: Supported, :: Not supported

## B.1 Solaris™ 8 Operating System

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Package name</th>
<th>VL</th>
<th>PW-P</th>
<th>PW-CLZ</th>
<th>PW-CL</th>
<th>PW-CMZ</th>
<th>PW-CM</th>
<th>C</th>
<th>B</th>
<th>F</th>
</tr>
</thead>
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<td>Enhanced Support Facility Information Management</td>
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<td>C</td>
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*1: NGDR command FJSVdr is installed, but not supported.
## B.3 Solaris™ 10 Operating System

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

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*1: NGDR command FJSVdr is installed, but not supported.
## B.3.2 SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000 (CW/LE)

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Appendix C Troubleshooting

C.1 During Installation

Case 1

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.
```

Case 2

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 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.
esfadd: ERROR: Installation of packages failed.
```

Case 3

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.
```

Case 4

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.
```

Case 5

Refer to Appendix C.1.5 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.
```
Case 6

Refer to Appendix C.1.6 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.")

```
# pkginfo -x package_name.* <Return>
```

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 package is later than that provided in the software, install the later version of the package.

5. Go on to the procedures in Section 5.3, "Update Installation."

6. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."
C.1.2 Resolution of problems which occur when package is installed (II).

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

A version of the <pkginst> package is already installed on this machine.
Current administration 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.
esfadd: ERROR: Installation of packages failed.

Problem Cause

This message will be displayed when the <pkginst> package installation fails. In particular, this message will be displayed when multiple instances of the <pkginst> package have already been installed on the system.

Execute the following procedure as the correction action.
Attention: Depending on the state of the system, this message might be displayed in addition to other display causes.
Therefore, you need to confirm whether there are other abnormalities, before proceeding.

Solution

1. If an environment setting file exists for the package where the problem occurred, save the environment setting file.
   (Refer to Section 5.3.4, "Saving the environment setting file" for details.)
2. Check the version of the package where the problem occurred.
   ```
   # pkginfo -x package_name.* <Return>
   ```
3. Remove all of the packages where problems occurred.
   ```
   # pkgrm package_name.* <Return>
   ```
4. Remove the FJSVbse package.
   ```
   # pkgrm FJSVbse <Return>
   ```
5. If the version of the problem package is later than the one provided in the software, install the later version of the package.
6. Go on to the procedures in Section 5.3, "Update Installation."
7. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."
C.1.3 Resolution of problems which occur when package is installed (III).

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

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

Problem Causes

This message will be displayed when the `<pkginst>` package installation fails. In particular, the message will be displayed if the software was installed under the following situations.

1. Lack of disk space (Refer to Section 3.1.1, "Disk requirements").
2. If using NFS to mount the CD-ROM drive on the system prior software installation, the options on the NFS mount are not appropriately specified.
3. The operator has executed procedures other than those described in the Installation Guide.

Attention: Depending on the state of the system, this message might be displayed for other reasons than those mentioned above. Therefore, you need to confirm whether there are other abnormalities before proceeding.

Solution

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

```
# pkgrm package_name <Return>
```
3. Remove the FJSVbse package.

```
# pkgrm FJSVbse <Return>
```
4. Go on to the procedures in Section 5.3, "Update Installation."
5. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

Attention:

Even if the FJSVbse package is removed according to procedure3, the /opt/FJSVbse directory might not be deleted. However, this will not cause any operational problems.

C.1.4 Resolution of problems which occur when package is installed (IV).

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

```
#esfadd
:
esfadd: ERROR: use permission of cron was not set up.(root,adm) was not set up.
```

Problem Causes

The root and adm users have not been set up to use cron.

Solution

Before installing this software, set up the root and adm users so they can use cron.
C.1.5 Resolution of problems, which occurred when package was removed (I).

If the following message is displayed during software removal, and the remove terminates abnormally, use the following solution.

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

Problem Cause

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

Solution

1. Remove package where problem occurred.
   ```
   # pkgrm package_name.* <Return>
   ```
2. Go on to step 9 provided in Section 5.4.1, "Removing the software."

C.1.6 Resolution of problems, which occurred when package was removed (II).

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

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

Problem Causes

This message will be displayed when the `<pkginst>` package removal fails. In particular, this message will be displayed if:
1. The `<pkginst>` package has dependence with other package(s).
2. The installed package instance has broken.
3. The operator executed procedures other than those described in the Installation Guide.

Attention: Depending on the state of the system, this message might be displayed in addition to others. Therefore, you need to confirm whether there are other abnormalities before proceeding.

Solution

1. If an environment setting file exists for the package where the problem occurred, save the environment setting file. (Refer to Section 5.3.4, "Saving the environment setting file" for details.)
2. Remove package where problem occurred.
   ```
   # pkgrm package_name <Return>
   ```
3. Remove the FJSVbse package.
   ```
   # pkgrm FJSVbse <Return>
   ```
4. Go on to the procedures in Section 5.3, "Update Installation."
5. Restore the previously saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."

Attention:

Even if the FJSVbse package is removed according to procedure 3, the /opt/FJSVbse directory might not be deleted. However, this will not cause any operational problems.
C.2 When the patches fail to be applied

See the README in the patch directory for patch information.

1. The following messages will be displayed when applying of the patch was failed.
   a. when no applicable packages exist
      (xxxxxx-xx is patch ID)
      ```
      One or more patch packages included in
      xxxxxx-xx are not installed on this system.
      WARNING: Skipping patch xxxxxx-xx
      
      or
      
      None of the packages included in patch xxxxxx-xx
      are installed on this system.
      WARNING: Skipping patch xxxxxx-xx
      ```
      
      If these messages are displayed, packages that would be corrected by the patch have not been installed on the system. Please check the environment of the system.
      
      If you installed the software by specifying a component group that excluded the package being corrected, this message will be displayed. but in that case, there is no problem.

   b. when the patch has already been applied
      ```
      Patch xxxxxx-xx has already been applied.
      See patchadd(1M) for instructions.
      WARNING: Skipping patch xxxxxx-xx
      ```
      
      If this message is displayed, the patch has already been applied to the system.
      
      If you are doing an update installation of this software, this is not a problem

Execute the following procedures to apply the patch again

1) Remove the FJSVbse package.
   ```
   # pkgrm FJSVbse <Return>
   ```

2) Go on to the procedures in Section 5.2.3, "Installing Enhanced Support Facility."
Appendix D Notes

D.1 Mounting the CD-ROM

D.1.1 PRIMEPOWER900/1500/2500

1) Mount the CD-ROM.

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

"host" denotes the host name of the system console.

2) Move to the directory of the CD-ROM.

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

D.1.2 SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000 and PRIMEPOWER250/450/650/850

D.1.2.1 Solaris 8 OS

1) Start volume management, and insert the Enhanced Support Facility 3.0 CD-ROM disk into the CD-ROM drive.

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

2) Move to the directory of the CD-ROM.

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

D.1.2.2 Solaris 9 OS or Solaris 10 OS

1) Stop the volume manager.

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

2) Create a mount destination directory for the CD-ROM. If such a directory already exists, another directory need not be created.

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

3) Mount the CD-ROM. Specify the CD-ROM device to be used in `<CDROM_DEVICE>`.

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

4) Move to the directory of the CD-ROM.

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

The CD-ROM can be referenced after the above work is completed.
D.1.3 SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000

D1.3.1 Using a built-in DVD drive

The mainframe internal DVD drive is implemented in the SPARC Enterprise T2000/M4000/M5000/M8000/M9000. If you use SPARC Enterprise T2000 internal DVD drive and SPARC Enterprise M4000/M5000/M8000/M9000 domain allocated internal DVD drive, you can mount a CD-ROM in the following procedure. Regarding allocation of DVD drive to a domain, please refer to “SPARC Enterprise M4000/M5000/M8000/M9000 Server Administration Guide” by visiting the following URL:

1) Stop Volume Manager.

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

2) Create the mount destination directory of a CD-ROM. However, if the directory already exists, you don’t have to create it.

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

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

```
#/usr/sbin/mount –F hsfs /dev/dsk/<DVD_DEVICE> /cdrom/cdrom0 <Return>
```

4) Move to the directory of the CD-ROM.

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

The CD-ROM becomes visible after completing the above steps.

D1.3.2 Mounting a CD-ROM of an installation server

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

1) Mount a CD-ROM.

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

The ‘host’ represents the host name of an installation server.

2) Move to the directory of the CD-ROM.

```
#/cdrom <Return>
```
D.2 Solaris network installation using DHCP service

If network installation is performed using DHCP service, the system behaves as a DHCP client. Enhanced Support Facility should be installed after the system is configured to use a static IP address.

Note:
Network installation using DHCP is supported for Solaris 9, 10 only. Please refer to Hardware Platform Guide for more information about DHCP support on PRIMEPOWER system.

If Enhanced Support Facility is installed while the system is running as a DHCP client, the following symptoms may occur.

- **Web-Based Admin View**
  
  **Symptom:** The following messages are displayed on the client system and Web-Based Admin View does not work correctly.
  
  `0005 Cannot connect to Management Server. Do you want to re-connect?`

  **Recommended action:** After configuring the system to use a static IP address, modify the IP address configuration of Web-Based Admin View. See Section 6.1, "Changing an IP Address on the Public LAN" in Web Based Admin View Operation Guide for more details.

- **Remote support**
  
  **Influence:** Reporting using Point-to-Point (PtoP) connection (ISDN) cannot be performed.
  
  **Recommended action:** After configuring the system to use a static IP address, please request a service engineer to change the setting of the router for REMCS PtoP (ISDN) connection.
D.3 Notes on FJVTS

D.3.1 Notes under Solaris 10 installation

Do not install the SunVTS (Sun Validation Test Suite) when you install Solaris 10.

[Screen view (Example)]

```
- Select Products ---------------------------------------------------------------

Select the products you would like to install.

V [ ] Solaris 10 Extra Value Software............... 0.00 MB
[ ] Sun Validation Test Suite 6.0................... 68.46 MB
[ ] Sun Install Check 2.0.2.......................... 16.21 MB
[ ] SRS Net Connect 3.1.............................. 42.59 MB
> [ ] Solaris 10 Documentation........................ 0.00 MB
> [ ] Java Enterprise System.......................... 0.00 MB
> [ ] Solaris Software Companion CD............... 0.00 MB

Press Return to hide components
---------------------------------------------------------------------------
Esc-2_Cntinue    F3_Go Back    Esc-4_Product Info    F5_Exit    F6_Help
```

* Do not install the SunVTS here. Otherwise, the FJVTS installed later will fail to run.

[Example of failure in start of the FJVTS]

```
# /opt/FJSVvts/bin/fjvts
Now, FJVTS system is under construction.
Apr 20 14:58:20 katana SunVTS6.0: entry = .customtest
Apr 20 14:58:20 katana SunVTS6.0: entry = .customtest_OtherDevices
sunvts: Can't start vtsk properly. Stop.
```

D.3.2 Action at the FJVTS failure

Take the following steps to solve the problem.

1) Stop the FJVTS related processes.
   Kill whole the FJVTS related processes with the command below.
   [Example]
   ```
   # ps -ef | grep -v grep | grep vts <Return>
   root 3416  1 0 15:01:41 ? 0:00 ./vtsk
   # kill -KILL 3416 <Return>
   ```

2) Save the environment setting file.
   Save the environment setting file, using the procedures in Section 5.3.4,"Saving the environment setting file."

3) Remove packages related to the SunVTS/FJVTS.
   Execute the following command.
   ```
   # pkgrm FJSVvts SUNWvtsx SUNWvtsts SUNWvtsr SUNWvtsmn SUNWvts <Return>
   ```
* Continue the removal of the package with "y", though you may see the following messages.

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx</td>
<td>xxxxxxx</td>
</tr>
<tr>
<td>xxxxxxxxxx</td>
<td>xxxxxxx</td>
</tr>
</tbody>
</table>

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

4) Remove the FJSVbse package.
   Execute the following command.
   
   ```
   # pkgrm FJSVbse <Return>
   ```

   *It is not necessary to delete other packages.

5) Reinstall Enhanced Support Facility.
   Go to the single user mode. Then go on to the procedures in Section 5.2.3, "Installing Enhanced Support Facility."

6) Restore the saved environment setting file.
   Restore the saved environment setting file, using the procedures in Section 5.3.7, "Restoring the environment settings file."
Appendix E Bundled Drivers

The following drivers are bundled with this product.
- FUJITSU PCI GigabitEthernet 3.0
- FUJITSU ULTRA LVD SCSI Host Bus Adapter Driver 2.0

In case of SPARC Enterprise T1000/T2000/M4000/M5000/M8000/M9000, after the installation of Enhanced Support Facility is finished successfully, the following message appears and the installation of the drivers starts.

Installation of the bundled driver starts.

[Notes]
Even if Enhanced Support Facility is removed, the above drivers are not removed from the system.