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# Enhanced Support Facility 2.5 User's Guide

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# Preface

## Purpose

This manual describes the Enhanced Support Facility that supports system maintenance control in a Solaris(TM) operating environment (Hereafter Solaris OE).

## Intended Readers

This manual is intended for the following readers:

- System administrators who introduce and operate this software
- Technicians who maintain system hardware

## Before You Begin

Before you start reading this manual, install the Enhanced Support Facility on your system, and then make sure it is in a usable state. For information on main unit hardware specifications and connections between peripherals and the main unit, refer to the documentation accompanying each product.

## Organization

This manual is organized as follows:

System Control Facility driver is abbreviated hereafter as SCF driver.  
System Control Facility hardware is abbreviated hereafter as SCF.

"Part1: SCF Driver Features" describes the SCF driver of GP7000F and PRIMEPOWER models. It also describes the RAS (Reliability, Availability, and Serviceability) features vital for server system operation.

- "Chapter1: Main Cabinet" describes the RAS features of the Main Cabinet.
- "Chapter2: Expansion Disk Cabinet/Expansion File Unit" describes the RAS features of the Expansion Disk Cabinet/Expansion File Unit.
- "Chapter3: Command Reference" describes the commands offered by SCF driver.
- "Chapter4: Driver Messages" explains the meaning of messages displayed by the SCF and other drivers. It also describes what to do when you get error messages.
- "Chapter5: Messages" explains the meaning of messages displayed by the SCF Monitoring daemon of each model. It also describes what to do when you get error messages.
- "Chapter6: Command Messages" explains the meaning of messages displayed by command that SCF driver offers. It also describes what to do when you get error messages.

"Part2 Serial Port Driver Features" (PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500 and GP7000F Models 1000/2000)" describes console connection via the onboard serial port of PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500 and GP7000F Models 1000/2000.

- "Chapter7: Connecting the Console" describes the connection of console via onboard serial port.
- "Chapter8: Command Reference" describes the commands offered by this software.
- "Chapter9: Messages" gives the meaning of messages displayed about the Serial Port IOMP feature. It also describes what to do when you get error messages.

"Part3 Maintenance Facility" describes the System Data Output Tool.

- "Chapter10: System Data Output Tool" describes the System Data Output Tool.

"Part4 Common Base Facility" describes the Common Base Facility.

- "Chapter11: License Manager" describes FLEXlm (License manager) that works with Solaris OE.
- "Chapter12: Server Default Configuration" describes the Log Clear function.

## Notations Used

The following shows the notation conventions used in this manual.

- The titles of chapters are enclosed in parentheses ("").  
Example: See "Chapter1 Main Cabinet"
- Commands and other input use the following prompts:  
C shell prompt:  
prompt%  
Bourne and korn shell prompt:  
prompt\$  
Super user prompt:

#

- Key combinations are represented, for example, by STOP-A, which means to simultaneously press the STOP and A key.

## Reference Manuals

If necessary, refer to the following manuals:

- Hardware documentation
- External Disk Cabinet/Units User's Manual
- Software Install Guide
- Manual of each product

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FUJITSU LIMITED

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Notes

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# Other Manual Information

The following manuals are not supplied with the products as printed or printable manuals.

Note that you can refer to the following manuals by "Solaris 2.6 on Sun Hardware AnswerBook" or "Solaris 8 on Sun Hardware Collection" or "Solaris 9 9/02 on Sun Hardware Collection " Internet site at <http://docs.sun.com/>.

No.	Manual Title
1	SunVTS User's Guide
2	SunVTS Test Reference Manual

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# Part 1 SCF Driver Features

"Part1 SCF Driver Features" describes the SCF of GP7000F and PRIMEPOWER and the RAS (Reliability, Availability, and Serviceability) features vital for server system operation. SCF driver of PRIMEPOWER 1 controls System Monitor.



# Chapter 1 Main Cabinet

This chapter describes the RAS features of the Main Cabinet.

## 1.1 Feature Overview

This section provides an overview of the features offered in the main cabinet.

### 1.1.1 Hardware

SCF (However, System Monitor in case of PRIMEPOWER 1) is offered to the main cabinet hardware of GP7000F/PRIMEPOWER as standard.

SCF provides features for monitoring hardware status and notifying software when failures occur.

### 1.1.2 Software

SCF driver controls the hardware SCF, and provides the following RAS (Reliability, Availability, and Serviceability) features vital for server system operation:

- Automatically shuts down the system to prevent damage when fan failures, abnormal temperatures, or other potentially destructive malfunctions occur.
- When redundant power supplies and fan units are possible for system, the failure of the power supply and the fan is notified to the operator, and maintains system operation. But the system will shut down to protect itself if all of the redundant components fail.
- When the degeneracy due to a partial system failure is done by the initial diagnosis of hardware at the system startup, the breakdown parts can be displayed by the command.
- Displays system configuration information on command.
- Controls system shutdown and power cutoff via the POWER switch.
- Allows installation of redundant power supplies and fans, and on hot-swappable systems, makes it possible to replace either of those devices while the system is operating.
- Allows the hot-swapping of internal disks during system operation.
- When an external power supply device is connected, allows the control of the operator call signal on user terminal board interfaces.
- For the Dynamic Reconfiguration Features (abbreviated here after as DR) of GP7000F model 1000/2000 and PRIMEPOWER 800/900/1000/1500/2000/2500, SCF driver offers DR Connection Script.

## 1.2 System Operation

This section describes the operational procedures of the system, from startup to shutdown, and explains how to use the controls on the processing unit's operation panel.

### 1.2.1 Boot

The system boots up when you press the POWER switch on the processing unit's operation panel. Solaris OE will automatically boot if the MODE switch is set to AUTO or LOCK. For more information on the MODE switch, refer to "1.2.3.1 MODE Switch."

The mode switch is not mounted on PRIMEPOWER 1. Solaris OE is automatically booted by pressing the POWER switch.

### 1.2.2 Shutdown

The system shuts down when you press the POWER switch on the processing unit's operation panel. When you press the POWER switch, you will normally see the following message:

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 1/200/250/400/450/600

```
pwrctrld: Power switch is pressed. Press power switch again
within 5 seconds to start shutdown procedure.
```

- GP7000F model 1000/2000
- PRIMEPOWER 800/1000/2000

```
pwrctrld: Power switch is pressed. Press power switch again
within 30 seconds to start shutdown procedure.
```

Pressing the POWER switch again within the displayed seconds initiates the shut down process that stops the system and turns off power.

For the following models, when the POWER switch is pressed, the following messages are displayed in operation panel. However, nothing is displayed in the console.

- PRIMEPOWER 650/850/900/1500/2500/HPC2500

POWER OFF OK?
---------------

For more information on shutting down the system using the POWER switch, refer to "1.3.2.1 POWER Switch Settings." Note that you can also shut down the system using the shutdown (IM) command.

### 1.2.3 Using Panel Controls

This section describes how to use the controls on the processing unit's operation panel.

#### 1.2.3.1 MODE Switch

When PRIMEPOWER 1 is used, this section need not be referred.

Refer to "Table 1. 1 Mode switch of each models" for the MODE Switch displayed in each model.

[Table 1. 1 Mode switch of each models]

Models	MODE switch		
GP7000F model 200/200R/400/400A/400R /600/600R	MANUAL	AUTO	SECURE
PRIMEPOWER 200/400/600	MANUAL	AUTO	SECURE
GP7000F model 1000/2000	MAINTENANCE	UNLOCK	LOCK
PRIMEPOWER 250/450	MAINTENANCE *1	UNLOCK *1	LOCK *1
PRIMEPOWER 650/800/850/900/1000/1500 /2000/2500/HPC2500	MAINTENANCE	UNLOCK	LOCK

Refer to "Table 1. 2 MODE switch and Function" below regarding the differences between the various operating modes.

[Table 1. 2 MODE switch and Function]

Mode	POWER switch		Console
	Shut Down Process	Power On	STOP-A
MANUAL or MAINTENANCE	Yes	Yes (Stops in OpenBoot)	Enters OpenBoot
AUTO	Yes	Yes (Solaris OE automatically starts up)	Enters OpenBoot
UNLOCK	Yes	Yes (Stops in OpenBoot)	Enters OpenBoot
SECURE or LOCK	No	No (After the power of system is turned on, Solaris OE automatically starts up)	Ignored

The system was designed to run with the MODE switch set to SECURE/LOCK in the majority of situations. Setting it to SECURE/LOCK offers safer operation than AUTO/UNLOCK, as it protects against improper use of controls on the operation panel.

For example, if the MODE switch is set to AUTO, Solaris OE automatically starts up. However, when the MODE Switch is set to SECURE or LOCK, the system cannot be booted up or shutdown by pressing the POWER Switch.

When the mode switch is SECURE or LOCK, the POWER switch cannot be operated. Switch the mode as necessary.

MANUAL/MAINTENANCE/UNLOCK should only be used when performing maintenance and related work on the system. It should not be used during normal operation. Turning on the system when the MODE switch is set to MANUAL/MAINTENANCE/UNLOCK will stop it in the OBP (OpenBoot PROM) state without booting up

Solaris OE.

Normally, you can enter the OpenBoot environment when STOP-A is entered on the console while Solaris OE is running. On a tty console, the Break operation is equivalent to STOP-A. It is possible to enter the OpenBoot environment only when the MODE switch is set to MANUAL, MAINTENANCE, AUTO or UNLOCK. You cannot enter the OpenBoot environment when the MODE switch is set to SECURE/LOCK.

The POWER switch only works when the MODE switch is set to MANUAL, MAINTENANCE, AUTO or UNLOCK. It will not work when the MODE switch is set to SECURE/LOCK.

You can display the current MODE switch setting with the command `fjprtdiag -v`.

### 1.2.3.2 LED lamp

#### For PRIMEPOWER 1

There are ALARM LEDs, CHECK LED, and FAULT DISK LEDs.

Each ALARM LED will either blink or light constantly when there is a failure in the corresponding portion of the system hardware. Refer to "Table 1. 3 ALARM LEDs" below.

**[Table 1. 3 ALARM LEDs]**

ALARM LED	Condition: blinking or lit
PWR LED	Lit constantly when power supply failure occurs.
THRM LED	Lit constantly when abnormal temperatures occur.
FAN LED	Lit constantly when fan failures occur.
SOFT LED (PRIMEPOWER1 only)	Blinking or lit constantly when other failures occur. Refer to "Machine Administration Guide."

If any ALARM LEDs blink or light up constantly, the CHECK LED will also blink or light up in the same way.

Each FAULT DISK LED will stay lit while hot-swapping internal disks.

If a fatal error occurs on the system, these LEDs will stay lit and Solaris OE will not boot up, even if you turn on the power.

Degraded operation occurs when there is a failure in some portion of the system hardware, rendering the failed hardware unusable. These LEDs will blink while the system is under degraded operation. The `fjprtdiag (1M)` command displays information on failed hardware.

#### For PRIMEPOWER 250/450

The CHECK LED will either blink or light constantly when there is a failure in some portion of the system hardware. If a fatal error occurs on the system, the CHECK LED will light constantly and Solaris OE will not boot up, even if you turn on power.

Degraded operation occurs when there is a failure in some portion of the system hardware, rendering the failed hardware unusable. The CHECK LED will blink while the system is under degraded operation.

The `fjprtdiag (1M)` command displays information on failed hardware.

In PRIMEPOWER 250/450, to specify target processor at maintenance etc., the CHECK lamp of the Main Cabinet can be lit or blinked. Refer to the `nodeled(1M)` command.

#### For models not listed above

The CHECK LED will either blink or light constantly when there is a failure in some portion of the system hardware. If a fatal error occurs on the system, the CHECK LED will light constantly and Solaris OE will not boot up, even if you turn on power.

Degraded operation occurs when there is a failure in some portion of the system hardware, rendering the failed hardware unusable. The CHECK LED will blink while the system is under degraded operation.

The `fjprtdiag (1M)` command displays information on failed hardware.

### 1.2.3.3 LCD Panel

When PRIMEPOWER 1/250/450 are used, this section need not be referred.

While Solaris OE is running the LCD Panel on the processing unit's operation panel displays the node name of the system. When a failure occurs on the system, the LCD panel displays hardware information.

For more information, refer to "PRIMEPOWER USER'S MANUAL" or "GP7000F USER'S MANUAL".

### 1.2.3.4 Other Switches

The operation panel also contains the REQUEST and RESET switch. These switches are not used during normal operation.

The RESET switch resets the system. It only works when the MODE switch is set to MANUAL/MAINTENANCE. Normally, the operation by which RESET switch is pressed is prohibited. However, please execute the memory dump save by REQUEST switch when it is necessary to reset the system by an unexpected situation. After the memory dump is saved, the system is reset.

It only works when the MODE switch is set to MANUAL/MAINTENANCE. This operation is only for maintenance purposes and problem analysis and improper use can cause the destruction of the system.

Please do not operate of the REQUEST switch, except when the system should save the memory dump by the purpose of an abnormal state or problem analysis.

The memory dump might fail to be saved in some system conditions.

### 1.2.4 Shutting Down and Booting the System

The system executes the shutdown process just like an operator in case of a system failure, a manipulation of the Auto Power Control System, or the occurrence of other potential events. If a UPS (Uninterruptible Power Supply) is connected, the system can also execute the shutdown process if a power down occurs.

Whether the system will normally power on after a power down, depends on the following conditions:

- The power to the system is cut according to the shutdown instruction of the operator (executing shutdown -i5), the settings in the Auto Power Control System, or shutdown due to system failure.
- Following a power down, when power is restored, the system will automatically power on. But this will not occur if a system failure occurred during the shutdown process.
- Normally, the system reboots after the shutdown according to the reboot instruction (executing shutdown -i6) of the operator. If a power down or a system failure occurs during the shutdown process, the power to the system is cut off without a reboot occurring.

## 1.3 Server Setup

This section describes how to set up the software to match the way the system will be operated.

### 1.3.1 Changing PATH

This software is installed on a different path than the normal Solaris OE commands, you must change the PATH variable if commands, etc are used.

If the root shell is the Bourne shell, add the following line to /.profile. If /.profile does not exist, create a new one.

```
PATH=$PATH:/opt/FJShwr/sbin
export PATH
```

If you are the super user by the su(1M) command, you will find it convenient to change the SUPATH for /etc/default/su. The following is the default SUPATH for /etc/default/su:

```
# SUPATH sets the initial shell PATH variable for root
#
# SUPATH=/usr/sbin:/usr/bin
```

Set the SUPATH as follows:

```
# SUPATH sets the initial shell PATH variable for root
#
SUPATH=/usr/sbin:/usr/bin:/opt/FJShwr/sbin
```

### 1.3.2 Feature Settings

This section describes the software settings that must be made when setting up the server or changing the



system configuration.

However, the each feature settings might be unnecessary with the using model.

Feature that each model can be set with is shown in "Table 1. 4 Feature settings list of each model".

**[Table 1. 4 Feature settings list of each model]**

Feature	Models				
	PRIMEPOWER 1	GP7000F model 200/200R/400/400A/400R/600/600R PRIMEPOWER 200/400/600	PRIMEPOWER 250/450	GP7000F model M1000/2000 PRIMEPOWER 800/1000/2000	PRIMEPOWER 650/850/900/1500/2500/HP C2500
POWER Switch settings	O	O	- *1	O	- *1
System time	-	O	-	-	- *1
UPS Operation time	-	O	- *1	- *1	- *1

O : Setting is possible

- : Setting is unnecessary

\*1 : Refer to the explanation of each feature though the setting is unnecessary.

Software settings can be made using `scftool(1M)` or `scfconf(1M)`.

Refer to "Table 1. 5 Each model offer list of `scftool(1M)` and `scfconf(1M)`" for each model by whom `scftool(1M)` and `scfconf(1M)` are offered.

**[Table 1. 5 Each model offer list of `scftool(1M)` and `scfconf(1M)`]**

Command	Models				
	PRIMEPOWER 1	GP7000F model 200/200R/400/400A/400R/600/600R PRIMEPOWER 200/400/600	PRIMEPOWER 250/450	GP7000F model M1000/2000 PRIMEPOWER 800/1000/2000	PRIMEPOWER 650/850/900/1500/2500/HP C2500
<code>scftool(1M)</code>	X	O	X	O	X
<code>scfconf(1M)</code>	O	O	X	X	X

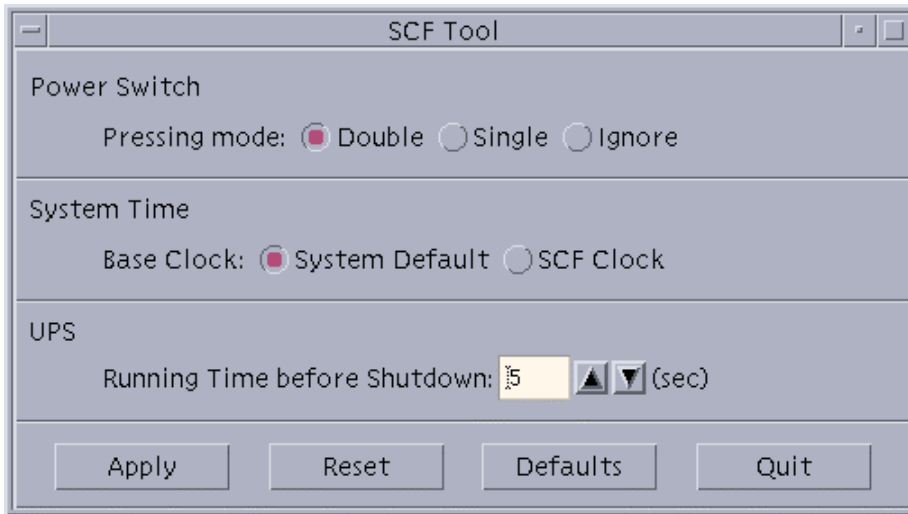
O: offer

X: Unoffer

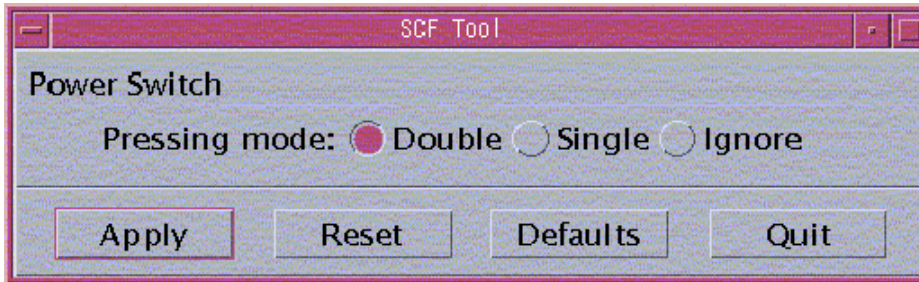
### **scftool(1M) overview**

`scftool(1M)` provides a user interface using Motif. `scftool(1M)` can be used in an OpenWindows or CDE environment.

[Figure1. 1 scftool screen (for GP7000F model 200/200R/400/400A/400R/600/600R, PRIMEPOWER 200/400/600)]



[Figure1. 2 scftool screen (for GP7000F model 1000/2000, PRIMEPOWER 800/1000/2000)]



### scfconf(1M) overview

scfconf(1M) is the software setting command with the CUI interface. For information on how to use scfconf(1M), refer to "3.5 scfconf(1M)."

#### 1.3.2.1 POWER Switch Settings

This software can be used to automatically shut down the system when the POWER switch is pressed.

The default setting is to start the system shutdown process after the POWER switch has been pressed twice.

Under the double-press mode, pressing the POWER switch twice will start the shutdown process. This prevents the system from being shutdown by accidentally pressing the POWER switch once. The first time the POWER switch is pressed; you will see a confirmation message on the console. Pressing the POWER switch again within the seconds described to "1.2.2 Shutdown" will start the shutdown process.

Under the single-press mode, pressing the POWER switch will immediately start the shutdown process without displaying the confirmation message.

Under the ignore mode, the system will not shutdown even when the POWER switch is pressed.

When the following models are used, default value is two times, and setting is not necessary.

- PRIMEPOWER 250/450/650/850/900/1500/2500/HPC2500

#### Notes

When the POWER switch is continuously pressed more than the set value, compulsion power supply OFF of the system might be executed.

Please do not press the POWER switch more than the set value continuously.

#### 1.3.2.2 System Time

For the following models, this section need not be referred to.

- GP7000F model 1000/2000
- PRIMEPOWER 1/100/250/450/800/900/1000/1500/2000/2500/HPC2500

This system has two hardware clocks: a system standard clock and the SCF high-resolution clock that has a lower degree of error. This software makes it possible to use the SCF high-resolution clock to adjust the time of the system standard clock.

The default setting uses only the system standard clock, and does not adjust its time.

Selecting the SCF high-resolution clock will cause time to be periodically adjusted, allowing more accurate time operation. However, changing system time by date or a similar command only affects the system standard clock. You must use the `scfdate(1M)` command to synchronize the system standard clock and the SCF high-resolution clock. Do this by executing the following:

```
# scfdate sync
```

Since system time can be changed by `date(1)` as well as `stime(2)`, `adjtime(2)`, and `settimeofday(3C)`, you must exercise caution when using the SCF high-resolution clock. In particular, do not use the SCF high-resolution clock when running NTP (Network Time Protocol) software that utilizes the network to synchronize time.

You can use the `scfdate(1M)` command to display the current time of the SCF high-resolution clock.

When the following models are used, the setting is unnecessary. However, when the system time is changed, it is necessary to synchronize SCF high-resolution clock by the `scfdate(1M)` command.

- PRIMEPOWER 650/850

### 1.3.2.3 UPS Operation Time

For the following models, this section need not be referred to because UPS cannot connect by the UPS interface.

- PRIMEPOWER 1

Connecting a UPS (Uninterruptible Power Supply) to the system allows you to shut down the system gracefully following a power down. In addition, if the power down is only for a few seconds, you may not want a system shutdown. The system allows you to set the operation time following a power down. This time is known as the UPS operation time.

UPS operation time is the length of delay prior to this software automatically starting the shutdown process. It can be set from 0 second to 9999 seconds. The default delay is 5 seconds. If power returns within the UPS operation time, the system will continue to operate.

UPS operation time is influenced by the UPS's capacity and specifications, time required to shutdown the system, UPS charge level, and other factors. Make sure you perform through tests before deciding on the appropriate UPS operation time.

When the following models are used, SCF driver does not have the setting. Set it by the Machine Administration. Refer to the "Machine Administration Guide" for the setting method.

- GP7000F model 1000/2000
- PRIMEPOWER 250/450/650/800/850/900/1000/1500//2000/2500/HPC2500

### 1.3.2.4 Notes

When GP7000 F model 1000/2000 or PRIMEPOWER 800/1000/2000 is used, and the SCF driver package is installed reinstalling or updating, it is necessary to set up the SCF driver again.

## 1.4 Troubleshooting

To protect the system from being damaged, this software automatically shuts down and turns off power when the fan fails, or an abnormal temperature is detected. To protect hardware from damage, it also immediately turns off power when power supply failures are detected. In this case however the system is not shut down.

With certain models redundant configurations enable continued operation even when one of the redundant components fails, but note that the system will shut down to protect itself if all of the redundant components fail.

When a component fails, a message is displayed on the console. You can also check for failures using `fjprtdiag(1M)` and `hsadm(1M)`.

## 1.5 Processing when UPS is connected, and power failure occurred

When UPS is connected to the system and the power failure occurred, SCF driver executes the shutdown process.

At this time, SCF driver makes the work file to distinguish the shutdown due to the power failure, and starts shutdown.

SCF driver does not make the work file when the shutdown(1M) command is executed or the POWER Switch presses or the shutdown processing due to abnormality.

The directory and the work file name from which the work file is made are as follows.

```
/var/opt/FJSVhwr/UPS2.cau
```

The application can add special processing by the power failure by the presence of this work file.

For example, the application prepares termination script (example of filename: K00Action), and it is stored to /etc/rc0.d directory.

Make the termination script so that special processing is executed when the work file exists.

The example of the termination script is shown below.

```
#!/bin/sh
#
# User Action Script for UPS AC-Fail Shutdown
#
case $1 in
'stop')
    if [ -f /var/opt/FJSVhwr/UPS2.cau ]; then
        Special Processing
    fi
    ;;
*)
    ;;
esac
exit 0
```

Refer to init.d(4) of the Sun document for details of the termination script.

This work file is deleted by the next system booting.

### Notes

- Please end the added processing within keep time (backup time) of the UPS battery. Please consider the keep time of the UPS battery. And, do not become complicated processing.
- Please set "execute permission" to the termination script.

## 1.6 kernel parameter of SCF driver

### 1.6.1 For SynfinityCluster

When using SynfinityCluster, you need to set the SCF/RCI monitoring timeout in the kernel parameter (/etc/system) according to RCI connecting unit model or the number of partitions.

### Notes

- The monitoring timeout might need to be set for some RCI connecting unit without partitions.
- You can calculate the timeout using the largest number of partitions in an RCI connecting unit.
- When the timeout setting is done, reboot a node and manually set the SynfinityCluster parameter (failure detection monitoring time). See "5.3 Alert monitoring interval" of the "SynfinityCluster Installation/Administration Guide".
  - Model with partitions: See "Condition a. Model 800, 1000, and 2000".
  - Model without partitions: See "Condition b. Cluster system with 4 or more nodes except the above "a".

## For GP7000F model 200/200R/400/400A/400R/600/600, and PRIMEPOWER200/400/600

The monitoring timeout setting is not required.

## For PRIMEPOWER 250/450

Set 2 seconds for the monitoring timeout.

- Setting up the `/etc/system` file

Change the `/etc/system` file on all cluster nodes, as follows:

1. Copy (or backup) `/etc/system` using `/etc/system.org`:

```
Example: # cp /etc/system /etc/system.org
```

2. Add the following to `/etc/system`. As the timeout is set up in \*s units, set a value equal to the value calculated above, multiplied by 1000000:

```
set FJSVscf:scf_rdctrl_sense_wait = (monitoring timeout: *s unit)
For example: /etc/system is specified as follows:
set FJSVscf:scf_rdctrl_sense_wait = 2000000
```

3. Reboot the system

## For GP7000F model 1000/2000, and PRIMEPOWER 800/1000/2000

Set up the monitoring timeout in the `/etc/system` file as follows:

- Calculating monitoring timeout

- 2 partitions : 2 seconds
- 3 or more partitions: 1 second + (0.5 x number of partitions)
  - Example 1) 3 partitions: 2.5 seconds
  - Example 2) 4 partitions: 3.0 seconds

- Setting up the `/etc/system` file

Change the `/etc/system` file on all cluster nodes, as follows:

1. Copy (or backup) `/etc/system` using `/etc/system.org`:

```
Example: # cp /etc/system /etc/system.org
```

2. Add the following to `/etc/system`. As the timeout is set up in \*s units, set a value equal to the value calculated above, multiplied by 1000000:

```
set FJSVscf2:scf_rdctrl_sense_wait = (monitoring timeout: *s unit)
For example, /etc/system is specified for 2-partition configuration as follows:
set FJSVscf2:scf_rdctrl_sense_wait = 2000000
```

3. Reboot the system

## For PRIMEPOWER 650/850

Set 2 seconds for the monitoring timeout.

- Setting up the `/etc/system` file

Change the `/etc/system` file on all cluster nodes, as follows:

1. Copy (or backup) `/etc/system` using `/etc/system.org`:

```
Example: # cp /etc/system /etc/system.org
```

2. Add the following to `/etc/system`. As the timeout is set up in \*s units, set a value equal to the value calculated above, multiplied by 1000000:

```
set FJSVscf3:scf_rdctrl_sense_wait = (monitoring timeout: *s unit)
For example: /etc/system is specified as follows:
set FJSVscf3:scf_rdctrl_sense_wait = 2000000
```

3. Reboot the system

## For PRIMEPOWER 900/1500/2500/HPC2500

Set up the monitoring timeout in the `/etc/system` file as follows:

- Calculating monitoring timeout

- 2 partitions : 2 seconds

- 3 or more partitions: 1 second + (0.5 x number of partitions)
  - Example 1) 3 partitions: 2.5 seconds
  - Example 2) 4 partitions: 3.0 seconds
- Setting up the `/etc/system` file

Change the `/etc/system` file on all cluster nodes, as follows:

1. Copy (or backup) `/etc/system` using `/etc/system.org`:

Example: `# cp /etc/system /etc/system.org`

2. Add the following to `/etc/system`. As the timeout is set up in \*s units, set a value equal to the value calculated above, multiplied by 1000000:

```
set FJSVscf3:scf_rdctrl_sense_wait = (monitoring timeout: *s unit)
For example, /etc/system is specified for 2-partition configuration as follows:
set FJSVscf3:scf_rdctrl_sense_wait = 2000000
```

3. Reboot the system

## 1.6.2 For PRIMECLUSTER

When using PRIMECLUSTER, you need to set the SCF/RCI monitoring timeout according to partition configuration of RCI connecting units.

### Notes

- You can calculate the timeout using the largest number of partitions in an RCI connecting unit.
- Enable the timeout by rebooting the node.

### For GP7000F model 200/200R/400/400A/400R/600/600, and PRIMEPOWER200/400/600

The monitoring timeout setting is not required.

### For PRIMEPOWER 250/450

The monitoring timeout setting is not required.

### For GP7000F model 1000/2000, and PRIMEPOWER 800/1000/2000

Set up the monitoring timeout in the `/etc/system` file as follows:

- Calculating monitoring timeout
  - 1 or 2 nodes: 2 seconds
  - 3 or more partitions: 1 second + (0.5 x number of partitions)
    - Example 1) 3 partitions: 2.5 seconds
    - Example 2) 4 partitions: 3.0 seconds
- Setting up the `/etc/system` file

Change the `/etc/system` file on all cluster nodes, as follows:

1. Copy (or backup) `/etc/system` using `/etc/system.org`:

Example: `# cp /etc/system /etc/system.org`

2. Add the following to `/etc/system`. As the timeout is set up in \*s units, set a value equal to the value calculated above, multiplied by 1000000:

```
set FJSVscf2:scf_rdctrl_sense_wait = (monitoring timeout: *s unit)
For example, /etc/system is specified for 2-partition configuration as follows:
set FJSVscf2:scf_rdctrl_sense_wait = 2000000
```

3. Reboot the system

### For PRIMEPOWER 650/850

The monitoring timeout setting is not required.

### For PRIMEPOWER 900/1500/2500/HPC2500

Set up the monitoring timeout in the `/etc/system` file as follows:

- Calculating monitoring timeout
  - 1 or 2 partitions : 2 seconds
  - 3 or more partitions: 1 second + (0.5 x number of partitions)

- Example 1) 3 partitions: 2.5 seconds
  - Example 2) 4 partitions: 3.0 seconds
- Setting up the `/etc/system` file
- Change the `/etc/system` file on all the nodes, as follows:
1. Copy (or backup) `/etc/system` using `/etc/system.org`:
 

```
Example: # cp /etc/system /etc/system.org
```
  2. Add the following to `/etc/system`. As the timeout is set up in \*s units, set a value equal to the value calculated above, multiplied by 1000000:
 

```
set FJSVscf3:scf_rdctrl_sense_wait = (monitoring timeout: *s unit)
For example, /etc/system is specified for 2-partition configuration as follows:
set FJSVscf3:scf_rdctrl_sense_wait = 2000000
```
  3. Reboot the system





# Chapter 2 Expansion Disk Cabinet/Expansion File Unit

This chapter describes the RAS (Reliability, Availability, and Serviceability) features of the SCSI Expansion Disk Cabinet(at the following: Expansion Disk Cabinet) and SCSI Expansion File Unit(at the following: Expansion File Unit).

## 2.1 Feature Overview

SCF driver offers the following RAS (Reliability, Availability, and Serviceability) features of the Expansion Disk Cabinet/Expansion File Unit which connects RCI.

The following features are available.

When the SCSI Expansion File Unit without RCI, SCF driver offers only the hot-swapping of internal disks.

- Notifies the system when power supply failures, abnormal temperatures or fan breakdowns occur on Expansion Disk Cabinets/Expansion File Units.  
This function is not offered to the following models.
  - PRIMEPOWER 1
- Allows the hot-swapping of redundant power supplies and fans on Expansion Disk Cabinets/ Expansion File Units.  
This function is not offered to the following models.
  - PRIMEPOWER 1
- This function is available in the rcinodeadm(1M) command the following models offer.
  - GP7000F model 200/200R/400/400A/400R/600/600R
  - PRIMEPOWER 200/400/600
- Models not listed above can be operated by the "Machine Administration" or "System console".  
Refer to "Machine Administration Guide" or "System Console Software User's Guide".
- Allows the hot-swapping of internal disks on Expansion Disk Cabinets/ Expansion File Units.

## 2.2 Setup of Expansion Disk Cabinet/ Expansion File Unit

An SCSI Expansion Disk Cabinet/SCSI Expansion File Unit which connects RCI should be included in the system before being used.

However, SCF does not provide commands to do this.

Moreover, the following models are off the subject of this function.

- PRIMEPOWER 1

As for including in the system, the operation is different because of each model.

For the following models, the RCI command that OBP(OpenBoot PROM) offers is used.

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 200/250/400/450/600/650/850

Refer to "PRIMEPOWER USER'S MANUAL" or "GP7000F USER'S MANUAL" for information on how to include the Expansion Disk Cabinet/Expansion File Unit using OBP RCI commands.

The following models are operated by "System Console".

- GP7000F model 1000/2000
- PRIMEPOWER 800/900/1000/1500/2000/2500/HPC2500

Refer to "PRIMEPOWER USER'S MANUAL" or "GP7000F USER'S MANUAL", and refer to " System Console Software User's Guide ".

When the Expansion File Unit without RCI is used, it need not be operated to include it in the system.

Refer to " USER'S MANUAL" of the Expansion File Unit.

## 2.3 Troubleshooting

SCF driver allows system notification of problems occurring in the SCSI Expansion Disk Cabinet/SCSI Expansion File Unit, such as power supply failures, abnormal temperatures or fan failures. Messages are displayed on the console in each case.

The system server will continue operation despite problems occurring in the Expansion Disk Cabinet/Expansion File Unit, as SCF driver does not, in any case, shut down the system server.

When it is impossible for the Expansion Disk Cabinet/Expansion File Unit to continue operation due to abnormal temperatures or other potential problems, the hardware shuts off power to the Expansion Disk Cabinet/Expansion File Unit after detecting the failures.

The Expansion Disk Cabinet/Expansion File Unit should be isolated, or other appropriate steps should be taken, according to the messages and circumstances.

# Chapter 3 Command Reference

This chapter describes the commands offered by SCF driver.

Refer to the following "" for the command offered by each model.

**[Table 3. 1 The offer list of commands]**

Commands	Models				
	PRIMEPOWER 1	GP7000F Model 200/200R/400/ 400A/400R/ 600/600R PRIMEPOWER 200/400/600	PRIMEPOWER 250/450	GP7000F Model 1000/2000  PRIMEPOWER 800/1000/2000	PRIMEPOWER 650/850/ 900/1500/ 2500/HP C2500
fjprtdiag(1M)	O	O	O	O	O
hsadm(1M)	O	O	X	X	X
diskadm(1M)	O	O	O	O	O
scftool(1M)	X	O	X	O	X
scfconf(1M)	O	O	X	X	X
scfdate(1M)	X	O	X	X	O *1
scfwdtimer(1M)	O	X	X	X	X
rcihello(1M)	X	O	X	X	X
rciinfo(1M)	X	O	O	O	O
rcinodeadm(1M)	X	O	X	X	X
rciopecall(1M)	X	O	O	O	O
nodeled	X	X	O	X	X
iompadm(1M)	X	X	O	O	O
prttdiag(1M)	*2	*2	*2	*2	*2

O : offer X : Unoffer

\*1 : There is a condition in the command operation on each model.

\*2 : SCF driver is not offering this command from ESF2.2.

## 3.1 fjprtdiag(1M)

### NAME

fjprtdiag - Prints system diagnostic information

### SYNOPSIS

/opt/FJSVhwr/sbin/fjprtdiag [ -v ] [ -l ]

### AVAILABILITY

FJSVscu, FJSVlscu, FJSVpsc, FJSVscu1, FJSVscu2, FJSVscu3

### DESCRIPTION

fjprtdiag displays system configuration information and system diagnostic information. System diagnostic information includes information on degraded devices caused by failures. The interface, output format, and installation location may change in future releases.

## OPTIONS

By default, `fjprtdiag` displays the following information:

- System Configuration
- System clock frequency
- Memory size
- Extended interleave mode (for PRIMEPOWER 650/850/900/1500/2500/HPC2500)
- CPU Units
- Used Memory
- Unused Memory (Displays when there is partial failure in memory used.)
- IO Cards
- Failed Units in System Initialization
- Detected Recent System faults

The following options are available:

`-v`

Verbose mode

Additionally displays detailed information that is environment information and OBP version information.

"System Temperature" is not displayed in the following models.

- PRIMEPOWER 1
- GP7000F model 1000/2000, and PRIMEPOWER 800/1000/2000
- PRIMEPOWER 900/1500/2500/HPC2500

`-l`

Log output

Outputs information to `syslogd(1M)` only when failures and errors occur on the system. If it is specified along with `-v`, detailed information is always output to `syslogd(1M)`.

## EXAMPLES

### For PRIMEPOWER 1

```
% /opt/FJSVhwr/sbin/fjprtdiag
```

```
System Configuration: Fujitsu/PFU sun4u Fujitsu PRIMEPOWER 1 1x UltraSPARC-IIe 400MHz
```

```
System clock frequency: 67 MHz
```

```
Memory size: 64Mb
```

```
CPU Units: Number Frequency Cache-Size Version
```

No.	MHz	MB	Impl.	Mask	No.	MHz	MB	Impl.	Mask
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
CPU#0	400	0.2	13	1.2					

```
Used Memory: Slot-Number Size
```

No.	MB	No.	MB	No.	MB	No.	MB
-----	-----	-----	-----	-----	-----	-----	-----
SLOT0	64						

```
=====IO Cards=====
```

Slot	Name	Model	Bus(max freq.)
------	------	-------	----------------

```
-----  
No failures found in System Initialization  
=====
```

```
No Recent System Faults found  
=====
```

### For GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600

```
% /opt/FJSVhwr/sbin/fjprtdiag
```

System Configuration: Fujitsu/PFU sun4us Fujitsu PRIMEPOWER 200 1x SPARC64-III 272MHz  
 System clock frequency: 73 MHz  
 Memory size: 64Mb

CPU Units: Number Frequency Cache-Size Version

No.	MHz	MB	Impl.	Mask	No.	MHz	MB	Impl.	Mask
CPU#0	272	4.0	3	2.0					

Used Memory: Slot-Number Size

No.	MB	No.	MB	No.	MB	No.	MB
SLOT0	32	SLOT1	32				

====IO Cards=====

Slot	Name	Model	Bus(max freq.)
PCI#6	scsi-glm	Symbios,53C875	PCIBUS#D(33Mhz)

No failures found in System Initialization

No Recent System Faults found

**For PRIMEPOWER 250/450**

% /opt/FJSVhwr/sbin/fjprtdiag -v

System Configuration: Fujitsu sun4us Fujitsu PRIMEPOWER250 2x SPARC64 IV  
 System clock frequency: 220 MHz  
 Memory size: 64Mb  
 Memory size: 1024Mb

CPU Units: Number Frequency Cache-Size Version

No.	MHz	MB	Impl.	Mask	No.	MHz	MB	Impl.	Mask
CPU#0	675	4.0	4	0.7	CPU#1	675	4.0	4	0.7

Used Memory: Slot-Number Size

No.	MB	No.	MB	No.	MB	No.	MB
SLOT#0	256	SLOT#1	256	SLOT#2	256	SLOT#3	256

====IO Cards=====

Slot	Name	Model	max freq.
PCI#00	scsi-glm	Symbios,53C875	33Mhz
PCI#01	SUNW,hme-pci108e,1001	SUNW,qsi-cheerio	33Mhz

No failures found in System Initialization

No Recent System Faults found

=====

=====  
=====Environmental Status=====

MODE switch position is in MAINT.E. mode

System Temperature (C):

AMBIENT 25

System PROM revisions:

-----

RST 1.1.4 2002/10/18 15:12 POST 1.1.3 2002/10/15 14:03

**For GP7000F model 1000/2000 and PRIMEPOWER 800/1000/2000**

% /opt/FJSVhwr/sbin/fjprtdiag -v

System Configuration: Fujitsu/PFU sun4us Fujitsu Siemens GP7000F 2000 2-slot 5x  
SPARC64-III 300MHz

System clock frequency: 100 MHz

Memory size: 4096Mb

CPU Units: Number Frequency Cache-Size Version

No.	MHz	MB	Impl.	Mask	No.	MHz	MB	Impl.	Mask
00-CPU#0	300	8.0	3	4.0	00-CPU#1	300	8.0	3	4.0
00-CPU#2	300	8.0	3	4.0					
07-CPU#0	300	8.0	3	4.0	07-CPU#1	300	8.0	3	4.0

Used Memory: Slot-Number Size

No.	MB	No.	MB	No.	MB	No.	MB
00-SLOT#A00	128	00-SLOT#A01	128	00-SLOT#A02	128	00-SLOT#A03	128
00-SLOT#A10	128	00-SLOT#A11	128	00-SLOT#A12	128	00-SLOT#A13	128
00-SLOT#A20	128	00-SLOT#A21	128	00-SLOT#A22	128	00-SLOT#A23	128
00-SLOT#A30	128	00-SLOT#A31	128	00-SLOT#A32	128	00-SLOT#A33	128
07-SLOT#A00	128	07-SLOT#A01	128	07-SLOT#A02	128	07-SLOT#A03	128
07-SLOT#A10	128	07-SLOT#A11	128	07-SLOT#A12	128	07-SLOT#A13	128
07-SLOT#A20	128	07-SLOT#A21	128	07-SLOT#A22	128	07-SLOT#A23	128
07-SLOT#A30	128	07-SLOT#A31	128	07-SLOT#A32	128	07-SLOT#A33	128

=====  
=====IO Cards=====

Slot	Name	Model	max freq.
00-PCI#0B	scsi-glm	Symbios, 53C875	33Mhz
00-PCI#0A	SUNW,hme-pci108e,1001	SUNW,qsi-cheerio	33Mhz
07-PCI#0B	scsi-glm	Symbios, 53C875	33Mhz

07-PCI#1B pci-pci1011,24

33Mhz

No failures found in System Initialization

=====

No Recent System Faults found

=====

=====  
=====Environmental Status=====

MODE switch position is in LOCK mode

System PROM revisions:

-----

RST 3.11.1 1999/10/16 13:26 POST 1.1.8 1999/12/01 14:25

**For PRIMEPOWER 650/850/900/1500/2500/HPC2500**

% /opt/FJSVhwr/sbin/fjprtdiag -v

System Configuration: Fujitsu sun4us Fujitsu PRIMEPOWER850 2-slot 8x SPARC64

IV 675MHz

System clock frequency: 112 MHz

Memory size: 4096Mb

Extended Interleave Mode: Disable

CPU Units: Number Frequency Cache-Size Version

No.	MHz	MB	Impl.	Mask	No.	MHz	MB	Impl.	Mask
COS00-CPU#0	675	8.0	4	0.7	COS00-CPU#1	675	8.0	4	0.7
COS00-CPU#2	675	8.0	4	0.7	COS00-CPU#3	675	8.0	4	0.7
COS01-CPU#0	675	8.0	4	0.7	COS01-CPU#1	675	8.0	4	0.7
COS01-CPU#2	675	8.0	4	0.7	COS01-CPU#3	675	8.0	4	0.7

Used Memory: Slot-Number Size

No.	MB	No.	MB
COS00-SLOT#A00	256	COS00-SLOT#B00	256
COS00-SLOT#A01	256	COS00-SLOT#B01	256
COS00-SLOT#A02	256	COS00-SLOT#B02	256
COS00-SLOT#A03	256	COS00-SLOT#B03	256
COS01-SLOT#A00	256	COS01-SLOT#B00	256
COS01-SLOT#A01	256	COS01-SLOT#B01	256
COS01-SLOT#A02	256	COS01-SLOT#B02	256
COS01-SLOT#A03	256	COS01-SLOT#B03	256

=====  
=====IO Cards=====

Sub

Freq

Brd	Brd Slot	Name	Model	MHz
0	COM00-PCI#00	scsi-glm	Symbios, 53C875	33
0	COM00-PCI#01	SUNW,hme-pci108e,1001	SUNW,qsi-cheerio	33

No failures found in System Initialization

No Recent System Faults found

=====  
 Environmental Status  
 =====

MODE switch position is in LOCK mode

System Temperature (C):

AMBIENT 25

System PROM revisions:

-----  
 RST 1.1.18 2001/08/22 22:24 POST 1.1.11 2001/08/28 10:03

## Notes

prtdiag(1M) command offered in before ESF2.1 is offered by fjprtdiag(1M) command in ESF2.2 or later. When ESF2.2 or later is installed environment, please use this command.

prtdiag(1M) command is installed in /usr/platform/`uname -i`/sbin directory. However, the display format and the contents are quite different from fjprtdiag(1M) command. Please do not use /usr/platform/`uname -i`/sbin/prtdiag.

## EXIT STATUS

This command returns the following values:

- 0 No failures or errors detected on the system.
- >0 Failures or errors detected on the system, or software errors detected.

## SEE ALSO

uname(1), modinfo(1M), prtconf(1M), psrinfo(1M), sysdef(1M), syslogd(1M), openprom(7D)

## 3.2 hsadm(1M)

### NAME

hsadm - Supports hot-swapping of internal power units and fans

### SYNOPSIS

/opt/FJSVhwr/sbin/hsadm *action unit*

### AVAILABILITY

FJSVscu, FJSVlscu



## DESCRIPTION

hsadm supports the hot-swapping of internal power units and fans.

This command displays the state of power supplies and fans and starts/stops the monitoring feature for both of those devices.

The command line must contain one action and at least one unit.

You can specify display, enable, or disable for *action*.

You can specify power and/or fan for *unit*.

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 1/100/200/400/600

## EXAMPLES

**action**

display *unit*

Displays the status of the specified unit. The following shows the display format:

Power unit:

Monitoring Mode: On / Off

FEP#0 State: Okay / Needs maintenance

Fan unit:

Monitoring Mode: On / Off

FAN#0 State: Okay / Needs maintenance

disable *unit*

Stops the monitoring feature for all specified units.

enable *unit*

Restarts the monitoring feature for all specified units.

## EXIT STATUS

This command returns the following values:

0 Ended normally  
1 Error

## NOTES

While hot-swapping a power supply, hsadm(1M) command does not display the state of the power supply which is removed.

After hot-swapping power supplies, use hsadm(1M) command to confirm that all of the power supplies which are installed are in state Okay.

Note that only the super user can execute this command.

## 3.3 diskadm(1M)

### NAME

diskadm - Supports hot-swapping of disks

### SYNOPSIS

/opt/FJSVhwr/sbin/diskadm *subcommand* pathname ...

### AVAILABILITY

FJSVscu, FJSVlscu, FJSVpsc, FJSVscu1, FJSVscu2, FJSVscu3

### DESCRIPTION

diskadm supports hot-swapping of disks.

This command displays disk status.

The command line must contain one subcommand and at least one pathname.

For pathname, you can specify a physical name, logical name or logical controller number cN (N is the logical number of the controller).

Example:

Physical name

/devices/pci@1f,4000/.../sd@0,0a

Logical name

/dev/rdisk/c0t0d0s0

Controller number

c0

## EXAMPLE

*subcommand*

display pathname

Displays the status information on specified disks. You can specify several path names for pathname in a single command line.

The following example shows how information is displayed.

For disks to which power is being supplied, diskadm checks them and displays status information.

For disks to which power is not supplied, diskadm displays OFFLINE for status information.

ONLINE Power is being supplied

OFFLINE Power is not being supplied

BROKEN?

Disk controller is not responding or disk is not installed

**NOTE:** You must specify a path name containing a disk slice identifier that is assigned to the existing disk slice.

1) Controller specified. (Example: Installed target: 0, 2, 3, 4)

```
# diskadm display c0
```

```
Controller is : /device/.... (c0)
```

```
Device Status:
```

Target0	Target2	Target3	Target4
ONLINE	OFFLINE	ONLINE	ONLINE

Targets corresponding to existing device path are displayed

2) Disk specified. (Example: Installed target: 0, 3)

```
# diskadm display /dev/rdisk/c0t0d0s2 /dev/rdisk/c0t3d0s2
```

```
Controller is: /device/.....
```

```
Device Status:
```

Target0	Target3
ONLINE	OFFLINE

## NOTES

Only the super user can execute this command.

## EXIT STATUS

This command returns the following values:

0 Ended normally

1 Error

## 3.4 scftool(1M)

### NAME

scftool - GUI controlling SCF features

## SYNOPSIS

/opt/FJSVhwr/sbin/scftool

## AVAILABILITY

FJSVscu, FJSVscu2

## DESCRIPTION

scftool is a GUI tool for controlling the following SCF features:

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R/1000/2000
- PRIMEPOWER 200/400/600/800/1000/2000

### Power switch settings

Number of times in which power switch until the shutdown beginning is pushed can be set. The setting can select "Single(1 time)", "Double(2 times)" or "ignore". The default setting is "Double".

### System clock setting

Specifies whether it is preferred to use the system standard clock or to adjust the time of the system standard clock using the SCF high-resolution clock that has a lower degree of error. The following models can use this setting.

- GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.

The setting can select "System Default" or "SCF clock". The default setting is "System Default".

Since system time can be changed by date(1) as well as stime(2), adjtime(2), and settimeofday(3C), you must exercise caution when

using the SCF high-resolution clock. In particular, do not use the SCF high-resolution clock when running NTP (Network Time Protocol) software that utilizes the network to synchronize time.

### UPS operation settings

Specifies the time from power down to the beginning of shutdown. If power does not come up again within the length of delay, this software will start the shutdown process.

The following models can use this setting.

- GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.

The delay can be set from 0 second to 9999 seconds. The default delay is 5 seconds.

## EXIT STATUS

This command returns the following values:

0 Ended normally  
>0 Error

## NOTES

Only the super user can execute this command.

When GP7000F model 1000/2000 and PRIMEPOWER 800/1000/2000 are used and "power switch settings" is set to differ in each partition, the set value of each partition becomes effective.

For example: When "Single" is specified for a certain partition and "Double" is specified as for another partition, and if power switch is pushed only once, as for the partition which specifies "Single" the shutdown is done.

## SEE ALSO

scfdate(1M)

## 3.5 scfconf(1M)

### NAME

scfconf - CUI controlling SCF features

### SYNOPSIS

#### For PRIMEPOWER 1

```
/opt/FJSVhwr/sbin/scfconf [-p {1|2|off}]
```

#### For GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600

```
/opt/FJSVhwr/sbin/scfconf [-p {1|2|off}] [-c {scf|tod}] [-u time]
```

### AVAILABILITY

FJSVscu, FJSVlscu

### DESCRIPTION

scfconf controls the following SCF features:

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 1/200/400/600

#### Power switch settings

Number of times in which power switch until the shutdown beginning is pushed can be set. The setting can select "1 (one time)", "2 (two times)" or "off(ignore)". The default setting is "2". After power switch has been pressed twice, the shutdown process is started.

#### System clock settings

Specifies whether it is preferred to use the system standard clock or to adjust the time of the system standard clock using the SCF high-resolution clock that has a lower degree of error. The following models can use this setting.

- GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.

The setting can select "scf" or "tod". The default setting is "tod".

Since system time can be changed by date(1) as well as stime(2), adjtime(2), and settimeofday(3C), you must exercise caution when

using the SCF high-resolution clock. In particular, do not use the SCF high-resolution clock when running NTP (Network Time Protocol) software that utilizes the network to synchronize time.

#### UPS operation settings

Specifies the time from power down to the beginning of shutdown. If power does not come up again within the length of delay, this software will start the shutdown process.

The following models can use this setting.

- GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.

The delay can be set from 0 second to 9999 seconds. The default delay is 5 seconds.

### OPTIONS

The following options are available. If no options are specified, the settings remain unchanged.

-p 1

The system begins shutdown when the power switch is pressed once.

- p 2      The system begins shutdown when a power switch is pressed twice. You must press the power switch again within 5 seconds before the first press is ignored.
- p off    Pressing a power switch is always ignored.
- c scf    Adjusts the time of the system standard clock using the SCF high-resolution clock.  
This specification is specifiable with GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.
- c tod    Only the system standard clock is used.  
This specification is specifiable with GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.
- u time   time: Specifies the length of delay in seconds until this software starts the shutdown process.  
This specification is specifiable with GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600.

## EXAMPLES

```
# /opt/FJSVhwr/sbin/scfconf -p off -c scf
```

## NOTES

Only the super user can execute this command.

## EXIT STATUS

This command returns the following values:

```
0      Ended normally
>0     Error
```

## SEE ALSO

scfdate(1M), scftool(1M)

## 3.6 scfdate(1M)

### NAME

scfdate - Checks the SCF high-resolution clock and synchronizes with the system standard clock

### SYNOPSIS

```
/opt/FJSVhwr/sbin/scfdate [sync]
```

### AVAILABILITY

FJSV<sub>scu</sub>, FJSV<sub>scu3</sub>

### DESCRIPTION

scfdate checks the SCF high-resolution clock and then reads the time of the system standard clock in order to reset the SCF high-resolution clock.

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 200/400/600/650/850

Running this command without any arguments displays the current time of the SCF high-resolution clock. Specifying the sync option sets system time from the system standard clock to the SCF high-resolution clock.

Even if this command is offered to PRIMEPOWER 900/1500/2500/HPC2500, and specifies the sync option, operation is invalid.

## EXAMPLES

```
prompt% scfdate
Tue Oct 27 18:40:38 JST 1998
# date 1157
Tue Oct 27 11:57:00 JST 1998
# scfdate sync
Tue Oct 27 11:57:00 JST 1998
```

## NOTES

If you use `scftool(1M)` or `scfconf(1M)` to operate the system with the setting for using the SCF high-resolution clock and you change system time with commands such as `date(1)`, you must synchronize the time of the SCF high-resolution clock. Note that only the super user can execute the `sync` option of this command. When the system is started in the single user mode, and system clock is changed, after `/opt` directory is mounted by using `maount(1M)` and `mountall(1M)` this command can be executed.

## EXIT STATUS

This command returns the following values:

```
0      Ended normally
>0    Error
```

## 3.7 scfwdtimer(1M)

### NAME

`scfwdtimer` - Controls the watchdog timer function

### SYNOPSIS

```
/opt/FJSHwr/sbin/scfwdtimer [enable | disable]
```

### AVAILABILITY

FJSHVlscu

### DESCRIPTION

`scfwdtimer` controls watchdog timer function of System Monitor.

The following models can use this command.

- PRIMEPOWER 1

If you specify `enable`, the watchdog timer function will be effective.

It allows rebooting a system automatically when a system is not responding over 14 minutes.

This is equivalent to pressing a reset switch.

At this point, all the programs running on the system are stopped forcibly, and data held only in the memory is destroyed.

If you specify `disable`, the watchdog timer function will stop without monitoring the system.

This function is disabled every time you start the system.

If you use this function, specify `enable` each time you start the system.

### EXIT STATUS

This command returns the following values:

```
0      Ended normally
>0    Error
```

### NOTES

- If you specify `enable`, this function activates when a system saves a memory dump. Saving of memory dump fails when saving of memory dump takes more than 14 minutes.
- This function is effective only on models where System Monitor has the watchdog timer function.

See the documentation provided with each product for information about the watchdog timer function.

## 3.8 rcihello(1M)

### NAME

rcihello - Controls CHECK LEDs of units connected via RCI

### SYNOPSIS

```
/opt/FJSVhwr/sbin/rcihello { on | off } [ address ]
```

### AVAILABILITY

FJSVscu

### DESCRIPTION

rcihello controls CHECK LEDs of units connected via RCI

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 200/400/600/650/850

### OPTIONS

The following options are available:

Address

Specifies units to be controlled, which are connected via RCI. If no address is specified, all of the units connected via RCI will be controlled. Addresses are given in 8-digit hexadecimal.

on

Blinks CHECK LEDs

off

Stops blinking CHECK LEDs

### EXAMPLES

```
# rcihello on 003001ff
```

### NOTES

The off option does not necessarily turn off CHECK LEDs. The CHECK LEDs with the addresses, which you did not specify to blink on the rcihello command line, reflect the internal status of the units connected via RCI.

Where old information remains on RCI devices that were previously connected, but currently are not, rcihello executed with no address (control for all of the units connected via RCI) will display error messages.

In this case, you must reconfigure RCI setting.

Note that only the super user can execute this command.

For the model by whom this command is not offered, "Machine Administration" offers the function equal with this command. Please refer to Machine Administration Guide".

### EXIT STATUS

This command returns the following values:

0 Ended normally

>0 Error

### SEE ALSO

rciinfo(1M), rcinodeadm(1M)

## 3.9 rciinfo(1M)

### NAME

rciinfo - Displays information on units connected via RCI

## SYNOPSIS

/opt/FJSHwr/sbin/rciinfo

## AVAILABILITY

FJSV<sub>scu</sub>, FJSV<sub>p<sub>scu</sub></sub>, FJSV<sub>scu2</sub>, FJSV<sub>scu3</sub>

## DESCRIPTION

rciinfo displays information on units connected via RCI. Values displayed, such as address, status and so on, are all given in hexadecimal.

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R/1000/2000
- PRIMEPOWER 200/250/400/450/600/650/800/850/900/1000/1500/2000/2500/HPC2500

## EXAMPLES

```
# rciinfo
```

```
HOST
```

```
address:000101ff mode:010038a0 status:8000000
```

```
LIST
```

```
address status device-class sub-class category
```

```
000101ff 9a 0001 04 host
```

```
003001ff 90 0400 04 disk
```

```
003002ff 90 0400 05 disk
```

HOST displays information on the system server.

LIST displays information on units connected via RCI together with those on the system server.

## NOTES

This command displays device information in the RCI configuration table.

It does not display information on devices that are physically connected but not configured. It does display information on devices that are not connected but remain in the RCI configuration.

In those cases, you must reconfigure using OBP commands.

## EXIT STATUS

This command returns the following values:

0 Ended normally

>0 Error

## SEE ALSO

rcinodeadm(1M), rcihello(1M)

## 3.10 rcinodeadm(1M)

### NAME

rcinodeadm - Controls monitoring units connected via RCI

### SYNOPSIS

/opt/FJSHwr/sbin/rcinodeadm address action

### AVAILABILITY

FJSV<sub>scu</sub>



## DESCRIPTION

rcinodeadm supports the hot swapping of internal power supply and fan in the External Disk Cabinet connected to the system server via RCI. This command starts/stops the monitoring feature for both devices. This command also operates fan test and turns off CHECK LEDs when monitoring is restarted.

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R
- PRIMEPOWER 200/250/400/450/600

## OPTIONS

address

Specifies addresses of units connected via RCI. You should specify addresses in a format that rciinfo can display (that is 8-digit hexadecimal).

You can specify the following value for action.

disable

Stops monitoring units connected via RCI

enable

Restarts monitoring units connected via RCI

## EXAMPLES

```
# rcinodeadm 003006ff disable
```

```
RCI 003006ff: alarm off
```

## NOTES

If the CHECK LED on RCI device is turned on due to self-detection of internal failures, it stays lit after monitoring has restarted.

Note that only the super user can execute this command.

## EXIT STATUS

This command returns the following values:

```
0      Ended normally
>0     Error
```

## SEE ALSO

rciinfo(1M), rcihello(1M)

## 3.11 rciopecall(1M)

### NAME

rciopecall - Reports operator call on units connected via RCI

### SYNOPSIS

```
/opt/FJSVhwr/sbin/rciopecall address {disp | on callNo | off callNo}
```

### AVAILABILITY

FJSVscu, FJSVpsc, FJSVscu1, FJSVscu2, FJSVscu3

### DESCRIPTION

rciopecall reports operator call on units connected via RCI.

The following models can use this command.

- GP7000F model 200/200R/400/400A/400R/600/600R/1000/2000
- PRIMEPOWER 200/250/400/450/600/650/800/850/900/1000/1500/2000/2500/HPC2500

## OPTIONS

The following options are available:

address

Specifies addresses of units connected via RCI. Addresses are given in 8-digit hexadecimal.

You can specify the following value for action.

disp

Displays the operator call

on

Sets the operator call ON

off

Sets the operator call OFF

callNo

If "on" or "off" is specified for action, specifies callNo that controls the operator call. callNo is given in 2-digit hexadecimal.

callNo is set up only in the device that "1" is specified in bit by the ON/OFF designation. It is possible that more than one bit is specified at the same time.

## EXAMPLES

```
# rciopecall 000101ff on 0c
# rciopecall 000101ff off 0c
# rciopecall 000101ff disp
address:000101ff callNo:0c status:00
```

## NOTES

Note that only the super user can execute this command.

This status code returns the following values:

00	Meaning	Ended normally
20	Meaning	Not support on the specified node
	Action	Check the RCI address.
40	Meaning	Command Timeout
	Action	Check the RCI address, and retry to the command.

## EXIT STATUS

This command returns the following values:

```
0      Ended normally
>0    Error
```

## 3.12 nodeled(1M)

### NAME

nodeled - LED lamp control/status display command of this system

### SYNOPSIS

#### LED lamp control

```
/opt/FJShwr/sbin/nodeled [-led check] -mode on | blink | off
```

#### LED lamp status display

```
/opt/FJShwr/sbin/nodeled [-led check] -status
```

## AVAILABILITY

FJSVpscu

## DESCRIPTION

This is a command to display the control and the state of the LED lamp of Main Cabinet. In this command, the CHECK lamp of the Main Cabinet can be controlled.

To specify the target processor from remoteness at maintenance, the CHECK lamp is lit or can be blinked by this command.

Moreover, status display of the CHECK lamp can be done.

The following models can use this command.

- PRIMEPOWER 250/450

## OPTIONS

The following options are available:

-led check

Specify the LED lamp. This parameter can be omitted.

**check** : CHECK lamp

-mode

Specify ON(lightning), BLINK(blinking), and OFF(release) of the LED lamp. This parameter cannot be specified with "-status" parameter.

**ON** : LED lamp is lit

**BLINK** : LED lamp is blinked

**OFF** : Lighting or blinking the LED lamp is released. This parameter is returned to the previous state to which the LED lamp is lit or blinked by this command.

-status

The state of the LED lamp is displayed. This parameter cannot be specified with "-mode" parameter.

**ON** : State of lightning

**BLINK** : State of blinking

**OFF** : State of turning off

## EXAMPLES

```
# /opt/FJSVhwr/sbin/nodeled -led check -mode blink
```

```
# /opt/FJSVhwr/sbin/nodeled -led check -status
```

```
=== LED =====
```

```
CHECK (Amber) ----- ON
```

## EXIT STATUS

This command returns the following values:

0 Ended normally

>0 Error

## 3.13 iompadm(1M)

### NAME

iompadm - Multipath control command

### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm [-p] -c class-name subcommand [parameter]
```

### AVAILABILITY

FJSVpscu, FJSVscu2, FJSVscu3, FJSViomp

## DESCRIPTION

iompadm displays the status of the communication paths composed of the interfaces. This command also restores the communication path where a failure occurs.

You can display the status of communication paths or restore them using the combination of the specified subcommand and parameter.

A communication path is a path that the SCF driver uses for communications with a SCF driver: one communication path for each system board.

The following models can use this command.

- GP7000F model 1000/2000
- PRIMEPOWER 250/450/650/800/850/900/1000/1500/2000/2500/HPC2500

## OPTIONS

The following options are available:

-c class-name :

Specifies a class name.

For PRIMEPOWER 250/450

"FJSVscf" must be specified.

For GP7000F model 1000/2000 and PRIMEPOWER 800/1000/2000

"FJSVscf2" must be specified.

For PRIMEPOWER 650/850/900/1500/2500/HPC2500

"FJSVscf3" must be specified.

-p :

Displays a communication path's logical and physical device name. If this option is omitted, only the logical device name will be displayed.

Subcommand :

"Table 3. 1 Subcommand List" lists the subcommands you can specify and gives their descriptions.

**[Table 3. 1 Subcommand List]**

Subcommand	Description
info	Displays the configuration information of the specified interface or all interfaces, and the status of communication paths.
status	Displays the status of the specified communication path.
ident	Displays the class to which the specified communication path belongs.
probe	Displays the interface to which specified communication path belongs.
recover	Restores the specified communication path.
start	After the recover subcommand is running, this subcommand makes the specified communication path available for communicating.
version	Displays the version information for this product.
help	Displays the usage of the iompadm command.

Parameter :

Specifies a parameter in combination with the subcommands. For more information, see "3.13.1 iompadm subcommand."

## EXIT STATUS

This command returns the following values:

- 0 Ended normally
- >0 Error

## 3.13.1 iompadm subcommand

### 3.13.1.1 info subcommand

#### DESCRIPTION

info subcommand displays the configuration information of the specified interface or all interfaces, and the status of communication paths.

If no interface name is specified, information for all of the interfaces that comprise the IOMP on the system will be displayed. In this case, the IOMP drivers except for the SCF driver will be included in the information.

If you want to view information about the SCF driver, specify "/dev/FJSVhwr/fiomp/mscf0" for an interface name.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm [-p] -c FJSVscf3 info [Interface name]
```

#### EXAMPLE

Example : For PRIMEPOWER 850

When -p option is not specified:

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 info /dev/FJSVhwr/fiomp/mscf0
```

```
IOMP: /dev/FJSVhwr/fiomp/mscf0
```

Element:

```
    /dev/FJSVhwr/scfc0    online active block "Good"
```

```
    /dev/FJSVhwr/scfc1    online standby block "Good"
```

Node:

```
    /dev/FJSVhwr/pwrctl1
```

```
    /dev/FJSVhwr/pwrctl2
```

```
    /dev/FJSVhwr/rcictl1
```

```
    /dev/FJSVhwr/rcictl2
```

```
    /dev/FJSVhwr/rasctl1
```

```
    /dev/FJSVhwr/rasctl2
```

Function:

```
    MPmode=false
```

```
    AutoPath=true
```

```
    Block=true
```

```
    NeedSync=false
```

Specify the -p option:

```
# /usr/opt/FJSViomp/bin/iompadm -p -c FJSVscf3 info /dev/FJSVhwr/fiomp/mscf0
```

```
IOMP: /dev/FJSVhwr/fiomp/mscf0
```

```
-> /device/pseudo/FJSVscf3@1024:mscf0
```

Element:

```
    /dev/FJSVhwr/scfc0    online active block "Good"
```

```
-> /devices/pci@83,4000/ebus@1/FJSV,scfc@14,200000:scfc0
```

```
    /dev/FJSVhwr/scfc1    online standby block "Good"
```

```
-> /devices/pci@8f,4000/ebus@1/FJSV,scfc@14,200000:scfc1
```

Node:

```
    /dev/FJSVhwr/pwrctl1
```

```
    /dev/FJSVhwr/pwrctl2
```

```
    /dev/FJSVhwr/rcictl1
```

```

/dev/FJSVhwr/rcictl2
/dev/FJSVhwr/rasctl
/dev/FJSVhwr/rasctl2

```

Function:

```

MPmode=false
AutoPath=true
Block=true
NeedSync=false

```

"Table 3. 2 Communication path status" explains information output in the above examples.

**[Table 3. 2 Communication path status]**

Information	Description
online/offline	Indicates the status of the communication path: online : enabled to communicate offline : disabled to communicate
active/standby/stop/fail/disconnected	Indicates the detailed status of the communication path: active : enabled to communicate or being communicated standby: ready for communication but in an idle state stop : stopped state fail : disabled to communicate caused by a failure disconnected: detached communication path by Dynamic Reconfiguration
block/unblock	Indicates whether incoming direct access to the communication path is permitted: block : prohibited unblock: permitted
Message	Displays supplemental information about the current system status or the cause of the error. Displaying quotation marks ("" ) indicates that no supplemental information exists. See "Table 3. 3 Message List" for more information about displayed messages.
-> /devices/...	If the -p option is specified, a physical device name will be displayed.

"Table 3. 3 Message List" gives the description and meaning of displayed messages.

The item "Executable" in "Table 3. 3 Message List" indicates either it is possible or impossible to execute the recover subcommand to restore the communication path.

**[Table 3. 3 Message List]**

Status	Message	Meaning	Executable
Active	Good	Communication is being established.	-
Standby	Good	The communication path is ready for communication, but there is in an idle state.	-

Stop	Good	The communication path is being stopped.	-
Fail	offline	SCF device failure occurred.	X
	Ebus2 Timeout	Ebus2 Timeout occurred.	O
	Command Error	Send Sumcheck Error occurred.	O
	Sumcheck Error	Receive Sumcheck Error occurred.	O
	Ebus2 DMA Error	Ebus2 DMA transport error occurred.	O
	Command Timeout	SCF Command Timeout Error occurred.	O
	Parity error	Parity Error occurred.	X

O: Possible (However, you might be impossible to restore the communication path to work properly with the recover subcommand, depending upon the hardware failure.)

X: Impossible

∴ Unnecessary

### 3.13.1.2 status subcommand

#### DESCRIPTION

status subcommand displays the status of the specified communication path.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm [-p] -c class-name status Interface Name [Communication Path Name]
```

#### EXAMPLE

Example : For PRIMEPOWER 850

When -p option is not specified:

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 status /dev/FJSVhwr/fiomp/mscf0
/dev/FJSVhwr/scfc0    online active block  "Good"
/dev/FJSVhwr/scfc1    online standby block  "Good"
```

Specify the communication path name:

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 status /dev/FJSVhwr/fiomp/mscf0
/dev/FJSVhwr/scfc0
/dev/FJSVhwr/scfc0    online active block  "Good"
```

### 3.13.1.3 ident subcommand

#### DESCRIPTION

ident subcommand displays the class to which the specified communication path belongs.

For PRIMEPOWER 250/450

"FJSVscf" is displayed.

For GP7000F model 1000/2000 and PRIMEPOWER 800/1000/2000

"FJSVscf2" is displayed.

For PRIMEPOWER 650/850/900/1500/2500/HPC2500

"FJSVscf3" is displayed.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm ident [Communication Path Name]
```

## EXAMPLE

Example : For PRIMEPOWER 850

```
# /usr/opt/FJSViomp/bin/iompadm ident /dev/FJSVhwr/scfc0
FJSVscf3
```

### 3.13.1.4 probe subcommand

#### DESCRIPTION

probe subcommand displays the interface to which specified communication path belongs.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm probe [Communication Path Name]
```

## EXAMPLE

Example : For PRIMEPOWER 850

```
# /usr/opt/FJSViomp/bin/iompadm probe /dev/FJSVhwr/scfc0
FJSVscf3 /dev/FJSVhwr/fiomp/mscf0
```

### 3.13.1.5 recover subcommand

#### DESCRIPTION

recover subcommand restores the communication path failed by various errors.

This subcommand can be executed if the message "offline" is not displayed using the info or status subcommands.

Successfully completing this subcommand changes the communication path into the "stop" state.

If you specify a communication path name, this subcommand will be performed for the specified communication path. If you use the communication path unless essential error cause is removed, the communication may be brought back to the "fail" state, depending upon the hardware failure.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c class-name recover /dev/FJSVhwr/fiomp/mscf0 [Communication PathName]
```

## EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 recover /dev/FJSVhwr/fiomp/mscf0
/dev/FJSVhwr/scfc0
```

### 3.13.1.6 start subcommand

#### DESCRIPTION

start subcommand makes the communication path in the "stop" state available.

Successfully completing this subcommand changes the communication path into the "standby" or "active" states.

If you specify a communication path name, this subcommand will be performed for the specified communication path.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 start /dev/FJSVhwr/fiomp/mscf0 [Communication Path Name]
```

## EXAMPLE

Example : For PRIMEPOWER 850

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 start /dev/FJSVhwr/fiomp/mscf0
/dev/FJSVhwr/scfc0
```

### 3.13.1.7 version subcommand

#### DESCRIPTION

version subcommand displays the version information for this product.



## SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c class-name version
```

## EXAMPLE

Example : For PRIMEPOWER 850

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 version
iompadm Version: 1.0.0 (1999/12/04)
FJIOMP-API-Level: 2.0
FJSVscf3: 2.0
FJSVscf3-API-level: 1.0
```

### 3.13.1.8 help subcommand

## DESCRIPTION

help subcommand displays the usage of the iompadm command.

## SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c class-name help
```

## EXAMPLE

Example : For PRIMEPOWER 850

```
# /usr/opt/FJSViomp/bin/iompadm -c FJSVscf3 help
```

subcommand :

help	Shows this help message.
ident	Returns the class name for IOMP device.
info	Returns information about an instance.
probe	Returns class and instance name for IOMP device
recover	Recovers the path after an error.
start	Restarts the use of a path.
status	Returns the path status.
version	Shows versions.

usage :

```
iompadm [-p] [-c FJSVscf3] help
iompadm [-p] [-c FJSVscf3] ident device-name
iompadm [-p] [-c FJSVscf3] info [instance-name]
iompadm [-p] [-c FJSVscf3] probe device-name
iompadm [-p] [-c FJSVscf3] recover instance-name [device-name]
iompadm [-p] [-c FJSVscf3] start instance-name [device-name]
iompadm [-p] [-c FJSVscf3] status instance-name [device-name]
iompadm [-p] [-c FJSVscf3] version
```

## 3.14 prtdiag(1M)

Refer to `fjprtdiag(1M)`.

`prtdiag(1M)` command offered in before ESF2.1 is offered by `fjprtdiag(1M)` command in ESF2.2 or later.



# Chapter 4 Driver Messages

This chapter gives the meaning of messages displayed by the SCF driver of each model, and meaning of messages displayed by other drivers of this software. It also describes what to do when you get error messages.

The system call error messages listed below are described by `man -s 2 Intro`.

## 4.1 SCF driver

Please refer to the message of the corresponding model for SCF driver's message.

### 4.1.1 For PRIMEPOWER 1

---

#### **WARNING: FJSVscf: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of `ddi_soft_state_init(9F)`.

Action

Allocate memory since there might not be enough kernel resources.

---

#### **WARNING: FJSVscf: \_init: mod\_install failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of `mod_install(9F)` (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources.

---

#### **WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of `ddi_get_soft_state(9F)` (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

#### **WARNING: FJSVscf: scf\_attach: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of `ddi_soft_state_zalloc(9F)` (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

#### **WARNING: FJSVscf: scf\_attach: ddi\_get\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of `ddi_get_iblock_cookie(9F)` (allocates resources for interrupt processing).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the SCF driver into the system because the creation of the device minor node failed.

Action

Make sure there is enough room in the /device file system.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_intr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_intr(9F) (registers interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach() failed.**

Meaning

Failed to incorporate the SCF driver into the system.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_regs\_map\_setup failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_dev\_resize failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_dev\_resize(9F) (gets the register size).

Action

Check the state of the System Monitor.

---

**WARNING: FJSVscf: kstat\_create failed**

Meaning

kstat\_create(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_detach: ddi\_get\_soft\_state failed**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_getinfo: ddi\_get\_soft\_state failed**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_getinfo() failed**

Meaning

getinfo failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_open: ddi\_get\_soft\_state failed**

Meaning

Could not open the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_read: ddi\_get\_soft\_state failed**

Meaning

Could not read the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_ioctl: ddi\_get\_soft\_state failed**

Meaning

SCF driver ioctl failed due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_intr: ddi\_get\_soft\_state failed**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: fan unit failure, FAN#?**

Meaning

Detected a fan unit failure. FAN#? represents the fan unit number.

Action

Check the fan that had its number displayed.

---

**WARNING: FJSVscf: power supply unit failure, FEP**

Meaning

Detected a power supply unit failure.

Action

Check the power supply unit.

---

**WARNING: FJSVscf: thermal alarm (X), SENSOR#?**

Meaning

Detected an abnormal temperature.

X is a number representing the cause.

- 1 : Ambient temperature low temperature warning
- 2 : Ambient temperature low temperature alarm
- 3 : Ambient temperature high temperature warning
- 4 : Ambient temperature high temperature alarm
- 5 : Unit/Processor low temperature warning, or sensor failure
- 6 : Unit/Processor low temperature alarm, or sensor failure
- 7 : Unit/Processor high temperature warning
- 8 : unit/processor high temperature alarm

#? represents the sensor ID.

Action

Check the environment where the unit is set up. Also make sure there is nothing wrong with the inside of the unit.

---

**WARNING: FJSVscf: power supply unit failure**

Meaning

Detected a power supply unit(DDC) failure.

Action

Check the power supply unit.

---

**WARNING: FJSVscf: fan unit failure on power supply unit**

Meaning

Detected a fan unit failure on power supply unit.

Action

Check the fan unit of power supply unit.

---

**panic[cpuX]/thread=0xXXXXXXXX: FJSVscf: memory dumping due to pressing REQUEST switch.**

Meaning

Started saving memory dump due to the press of REQUEST switch

#### **4.1.2 For GP7000F models 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600**

---

**WARNING: FJSVscf: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: \_init: mod\_install failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of mod\_install(9F) (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_probe: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_probe: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_probe: ddi\_dev\_nregs failed.**

Meaning

The register information in the SCF device is incorrect.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F)(gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_iblock\_cookie(9F) (allocates resources for interrupt processing).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the SCF driver into the system because the creation of the device minor node failed.

Action

Make sure there is enough room in the /device file system.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_intr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_intr(9F) (registers interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_regs\_map\_setup failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_dev\_regsz failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_dev\_regsz(9F) (gets the register size).



Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf\_chpoll: ddi\_get\_soft\_state failed**

Meaning

poll(2) terminated abnormally due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_detach: ddi\_get\_soft\_state failed**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_open: ddi\_get\_soft\_state failed**

Meaning

Could not open the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_close: ddi\_get\_soft\_state failed**

Meaning

Could not close the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_read: ddi\_get\_soft\_state failed**

Meaning

Could not read the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_ioctl: ddi\_get\_soft\_state failed**

Meaning

SCF driver ioctl failed due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_rfantest: redundant fan test failed.**

Meaning

Failed to start the redundant fan test that is performed periodically within the SCF driver.

Action

Check the state of the SCF device.

---

**NOTICE: FJSVscf: cannot set watchdog. SCF busy.**

Meaning

Failed to issue the CPU monitoring command to the SCF device.

Action

Check the state of the SCF device.

---

**FJSVscf: ignoring debug enter sequence**

Meaning

STOP-A was entered while the MODE switch on the operator panel was set to SECURE.

---

**FJSVscf: allowing debug enter**

Meaning

STOP-A was entered.

---

**WARNING: FJSVscf: SCF went to offline mode and was restarted**

Meaning

SCF entered the OFFLINE state and was reset.

Action

Check the state of the SCF device.

---

**NOTICE: FJSVscf: scf\_reset: kmem\_alloc failed. cannot dump firm area**

Meaning

Failed to allocate memory and get a dump from the SCF device firmware area when the SCF device was reset.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVscf: SCF online**

Meaning

Resetting of the SCF device completed, and the device entered the ONLINE state.

---

**WARNING: FJSVscf: scf\_intr: Unexpected POFF interrupt occurred**

Meaning

A POWER switch interrupt occurred while the toggle switch on the operator panel was set to SECURE.

---

**NOTICE: FJSVscf: AC power down (PFAIL)**

Meaning

A cutoff in power supply was detected.

---

**WARNING: FJSVscf: scf\_intr: Unexpected EXTOD interrupt occurred**

Meaning

Detected an EXTOD interrupt.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: fan unit failure, FAN#?**

Meaning

Detected a fan unit failure. FAN#? represents the fan unit number.

Action

Check the fan that had its number displayed.

---

**WARNING: FJSVscf: power supply unit failure, FEP#?**

Meaning

Detected a power supply unit failure. FEP#? represents the power supply unit number.

Action

Check the power supply unit that had its number displayed.

---

**WARNING: FJSVscf: thermal alarm (X), SENSOR#?**

Meaning

Detected an abnormal temperature.

X is a number representing the cause.

- 1 : Ambient temperature low temperature warning
- 2 : Ambient temperature low temperature alarm
- 3 : Ambient temperature high temperature warning
- 4 : Ambient temperature high temperature alarm
- 5 : Unit/Processor low temperature warning, or sensor failure
- 6 : Unit/Processor low temperature alarm, or sensor failure
- 7 : Unit/Processor high temperature warning
- 8 : unit/processor high temperature alarm

#? represents the sensor ID.

Action

Check the environment where the unit is set up. Also make sure there is nothing wrong with the inside of the unit.

---

**WARNING: FJsvscf: AC power down was detected. UPS is activated.**

Meaning

Power is now being supplied by the UPS due to a power down.

---

**FJsvscf: AC power recovered**

Meaning

Power was restored.

---

**WARNING: FJsvscf: UPS low battery, UPS#?**

Meaning

Power from the UPS has run out. UPS#? represents the UPS number.

Action

Charge the UPS battery.

---

**WARNING: FJsvscf: UPS failure, UPS#?**

Meaning

Detected a UPS failure (either a UPS hardware failure, UPS failure, or UPS circuit protector failure).  
UPS#? represents the UPS number.

Action

Check to make sure that nothing is wrong with the UPS.

---

**WARNING: FJsvscf: SCF battery alarm, BATTERY#?**

Meaning

Problem detected in the battery backing up SCF SRAM. #? represents the battery number.

Action

Check the battery.

---

**NOTICE: FJsvscf: caught cpu watchdog alarm**

Meaning

A CPU monitoring timeout occurred during CPU monitoring.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvscf: device sense Sub Code = 0x? is not support**

Meaning

The SCF device reported sensor information that is not supported by the driver. 0x? represents the sub code of the sensor information that was reported.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf cmd (0x?) incomplete**

Meaning

The SCF device could not complete a command within the prescribed time. 0x? represents the command code that could not be completed.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf cmd (0x?) failed. SCF hard error**

Meaning

The command could not complete successfully on the SCF device due to a hardware error. 0x? represents the command code that ended in an error

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf cmd (0x?) failed. SCF RCI error**

Meaning

The command could not complete successfully on the SCF device due to an RCI error. 0x? represents the command code that ended in an error

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf cmd (0x?) failed by unknown error (yy)**

Meaning

The command could not complete successfully on the SCF device due to an undefined error. 0x? represents the command code that ended in an error and yy is the error code on the SCF device.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: SCF hardware error was detected (error status register value)**

Meaning

SCF hardware error occurred.

Action

If this message was issued repeatedly, check the SCF device.

---

**FJSVscf: kstat\_create failed**

Meaning

kstat\_create failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**FJSVscf: switch status is unknown**

Meaning

There is a problem with the panel switch setting.

Action

Check the state of the SCF device.

---

**FJVSscf: kstat memory allocation error**

Meaning

There is not enough memory.

Action

Allocate more memory.

---

**WARNING: FJVSscf: no device sense (interrupt status-1 register xx)**

Meaning

An interruption that should have sensed information was detected, but no sensed information was got. xx represents the value in the interrupt status-1 register.

Action

Check the state of the SCF device.

---

**WARNING: FJVSscf: Unexpected interrupt (interrupt status-1 register xx)**

Meaning

An undefined interruption was detected. xx represents the value in the interrupt status-1 register.

Action

Check the state of the SCF device.

---

**WARNING: FJVSscf: SCF HALT was detected. (halt status register xx)**

Meaning

SCFHalt was detected. xx represents the value in the halt status register.

Action

Check the state of the SCF device.

---

**WARNING: FJVSscf: scf cmd (0x?) failed. SCF buffer full, (yy) times repeated**

Meaning

Sending a command to SCF device was repeated (yy) times due to a full command buffer on the SCF device. But they were not processed normally. 0x? represents the command code that ended in an error

Action

Check the state of SCF device.

---

**WARNING: FJVSscf: scf\_map\_regs: ddi\_dev\_reshape failed. (Ebus T.O. register)**

Meaning

ddi\_dev\_reshape(9F) (gets register size) terminated abnormally.

Action

Check to make sure that nothing is wrong with the hardware(Ebus).

---

**WARNING: FJVSscf: scf\_map\_regs: ddi\_regs\_map\_setup failed. (Ebus T.O. register)**

Meaning

ddi\_regs\_map\_setup(9F) (maps register) terminated abnormally.

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_icotl: Status Check Timeout Control command timeout**

Meaning

The Status Check Timeout Control command of the SCF could not complete within the prescribed time.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: EBus TimeOut. EBus T.O. Status register = 0x?.**

Meaning

A Ebus timeout occurred. ? represents the value in the Ebus Timeout Status register

Action

Check to make sure that nothing is wrong with the hardware(Ebus).

---

**WARNING: FJSVscf: scf\_intr: cannot get p-off factor.**

Meaning

Could not get the power on/off factor from the SCF.

Action

Check the state of the SCF device.

---

**panic[cpuX]/thread=0xXXXXXXXX: FJSVscf: panic request from RCI 0xXXXXXXXX**

Meaning

The RCI device that has RCI address of ? requested the system panic.

Action

This message shows the state.

However, at the cluster environment etc. , another node (RCI address 0xXXXXXXXX) which detected abnormality issues the panic instruction to this node via RCI. And, when OS panic is executed, this node outputs this message.

Please investigate this node from information on another node (RCI address 0xXXXXXXXX).

---

**WARNING: FJSVscf: cannot report PANIC.**

Meaning

Could not notify the system panic on the other HOST when it occurred.

---

**panic[cpuX]/thread=0xXXXXXXXX: FJSVscf: memory dumping due to pressing REQUEST switch.**

Meaning

Started saving memory dump due to the press of REQUEST switch

---

**NOTICE: FJSVscf: pressed REQUEST switch in auto mode, no memory dumping.**

Meaning

REQUEST switch was pressed, but as the MODE switch is in AUTO position, memory dump was not saved.

---

**WARNING: FJSVscf: cannot send command due to SCF busy.**

Meaning

Failed to send commands due to busy status of the SCF device

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: SCF error. System Status Register = XX unknown status.**

Meaning

The value of System Status Register was undefined value(XX).

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: power supply unit failure, BE#?**

Meaning

Detected a BE power supply unit failure. BE#? represents the power supply unit number.

Action

Check the power supply unit that had its number displayed

---

**WARNING: FJSVscf: SCF went to offline mode again.**

Meaning

SCF entered the ONLINE state after resetting the SCF device, but SCF entered the OFFLINE state again before reporting "System Running."

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: SCF did not become online.**

Meaning

SCF did not enter the ONLINE state after resetting the SCF device.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf\_report\_from\_intr: failed to report System Running.**

Meaning

SCF entered the ONLINE state after resetting the SCF device. But failed to report "System Running" due to a full command buffer on the SCF device.

Action

Check the state of the SCF device.

---



**WARNING: FJSVscf: fan unit failure on RCI(addr = 0XXXXXXXX), FAN#?, sub status =0xX1, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0x00**

**Meaning**

Detected a fan unit failure(sub status=0x01 or 0x81) on RCI device (addr = 0XXXXXXXX).  
This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.  
When "sub status" is 0x81 and this system is abnormal, after this message is displayed the power off of the system is executed.  
When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.  
FAN#? represents the fan unit number.  
Sense info shows the following meanings.  
Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".  
0xZZ shows the event code.

0x01 : Fan rotation decrease

0x02 : Fan rotation stop

0xYY is fan number, and the number which depends on the corresponding RCI device.  
0xNN is fan tray number, and the number which depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.  
Check the fan unit of the FAN#? , and please contact our customer engineer

---

**WARNING: FJSVscf: power supply unit failure on RCI(addr = 0XXXXXXXX), FEP#?, sub status = 0xX2, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0x00**

**Meaning**

Detected a power supply unit failure(sub status=0x02 or 0x82) on RCI device (addr = 0XXXXXXXX).  
This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.  
When "sub status" is 0x82 and this system is abnormal, after this message is displayed the power off of the system is executed.  
When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.  
FEP#? represents the power supply unit number.  
Sense info shows the following meanings.  
Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".  
0xZZ shows the event code.

0x00 : An abnormal power supply unit cannot be specified.

0x01-04 : Power supply and voltage are abnormal.

0x05 : Power supply unit which depends on device is abnormal.

0xYY is detailed information which supplements the event code (0xZZ).  
00xNN is a power supply unit type or number, and it depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.  
Check the power supply unit of the FEP#? , and please contact our customer engineer.

---

**WARNING: FJSVscf: thermal alarm on RCI(addr = 0xXXXXXXXX), SENSOR#?, sub status = 0xX6, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

**Meaning**

Detected an abnormal temperature (sub status=0x06 or 0x86) on RCI device (addr = 0xXXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected. When "sub status" is 0x86 and this system is abnormal, after this message is displayed the power off of the system is executed. When another device on RCI network is abnormal, the abnormal is notified to this system through RCI. SENSOR#? represents the sensor number. Sense info shows the following meanings. Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX". 0xZZ shows the event code.

- 0x01 : Ambient temperature low temperature warning
- 0x02 : Ambient temperature low temperature alarm
- 0x03 : Ambient temperature high temperature warning
- 0x04 : Ambient temperature high temperature alarm
- 0x05 : Unit/Processor low temperature warning, or sensor failure
- 0x06 : Unit/Processor low temperature alarm, or sensor failure
- 0x07 : Unit/Processor high temperature warning
- 0x08 : unit/processor high temperature alarm

0xYY is sensor number, and it depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr. Check the environment where the unit is set up. Also make sure there is nothing wrong with the inside of the RCI device.

**WARNING: FJSVscf: node error on RCI(addr = 0xXXXXXXXX), sub status = 0x08, sense info = 0xXX 0xXX 0xXX 0xXX 0x00 0xZZ 0xYY 0x00**

**Meaning**

Detected a node error (sub status=0x08) on RCI device (addr = 0xXXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected. When another device on RCI network is abnormal, the abnormal is notified to this system through RCI. Sense info shows the following meanings. Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX". 0xZZ shows the event code.

- 0x01 : The internal failure of RCI-I/O device
- 0x01-05 : SCF unit self-diagnosis error
- 0x90 : RCI network is abnormal (status check time-out)
- 0x91 : RCI address multiple error
- 0x92 : Host node is abnormal
- 0x93 : RCI device connection failure of unregistration
- 0x94 : SCF degeneracy
- 0xc0-ff : Hard error of RCI-I/O device

0xYY shows detailed information of RCI network abnormality (event code 0x90) or host node

abnormality (event code 0x92). Or, when the inside abnormality of RCI-I/O device (event code 0x00), detailed information that depends on RCI-I/O device is shown. Other event codes are irregular values, and it does not have the meaning.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check RCI address is uniquely assigned to each RCI device, there are no RCI cable problems, RCI device are turned power on, unconfigured RCI devices are not connected or there are no internal failure in RCI devices. Please contact our customer engineer.

---

**NOTICE: FJSVscf: I/O node status sense from RCI(addr = 0XXXXXXXX),sub status = 0x62, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0xYY**

**Meaning**

Detected a sensed information of I/O node status (sub status=0x062) from RCI device (addr = 0XXXXXXXX).

This message displays the change of the state of another device connected on the RCI network.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x01 : RCI-I/O device connection or power supply reentry

0x02 : RCI-I/O device disconnect

0xYY is type or number of RCI-I/O device, and it depends on corresponding RCI-I/O device.

**Action**

It is not necessary.

When this message is frequently displayed, it is necessary to investigate the RCI device, and please contact our customer engineer.

---

**WARNING: FJSVscf: mount error on RCI(addr = 0XXXXXXXX), sub status = 0xX9, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0x00**

**Meaning**

Detected a mount error (sub status=0x09 or 0x89) on RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x01 : mount error (a lot of mounting)

0x02 : mount error (few mounting)

0x02 : mount position is abnormal

0xYY is detailed information which supplements the event code (0xZZ).

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the corresponding RCI device, and please contact our customer engineer.

---

**WARNING: FJSVscf: unexpected sense from RCI(addr = 0xXXXXXXXX) was detected. sub status = 0xYY,  
sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xZZ 0xZZ 0xZZ**

**Meaning**

Detected an unexpected sense information from RCI device (addr = 0xXXXXXXXX).  
sub status = 0xYY shows the device information command.

0x4X : Device status notification

0x70 : Device attribute display

0x71 : Device status display

When sense information is notified according to the timing unexpected from another device connected with the RCI network, this message is displayed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the notified sense information, and depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the corresponding RCI device, and please contact our customer engineer.

---

**WARNING: FJSVscf: device sense from RCI(addr = 0xXXXXXXXX), sub status = 0xYY,  
sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xZZ 0xZZ 0xZZ**

**Meaning**

Detected a sensed information form RCI device(addr = 0xXXXXXXXX) that SCF driver does not support or undefined.

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

0xYY shows the event code notified the SCF driver.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows notified sense information, and is an irregular value.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the corresponding RCI device, and please contact our customer engineer.

When RCI device is this system, check whether to operate about "Machine Administration".

---

**WARNING: FJSVscf: AC power down was detected on RCI(addr = 0xXXXXXXXX), sub status = 0xX7,  
sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0xYY**

**Meaning**

Detected a AC power down (sub status=0x07 or 0x87) on RCI device. (addr = 0xXXXXXXXX)

This message displays abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

0x01 : Power failure occurred

0xZZ shows the notified sense information, and depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with

addr.

Check the corresponding RCI device, and please contact our customer engineer.

---

**WARNING: FJSVscf: power supply unit failure on RCI(addr = 0XXXXXXXX), BE#?, sub status = 0xX2,  
sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0x00**

Meaning

Detected a BE power supply unit failure(sub status=0x02 or 0x82) on RCI device (addr = 0XXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x82 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

BE#? represents the BE power supply unit number.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x05 : BE power supply unit which depends on device is abnormal.

0xYY is detailed information which supplements the event code (0xZZ).

0xNN is a BE power supply unit type or number, and it depends on the corresponding RCI device.

Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the power supply unit of the BE#?, and please contact our customer engineer.

---

**WARNING: FJSVscf: power supply unit failure on RCI(addr = 0XXXXXXXX),  
sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xZZ 0xZZ 0xZZ**

Meaning

Detected a power supply unit except FEP and BE failure on RCI device (addr = 0XXXXXXXX).

This message displays abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the notified sense information, and depends on the corresponding RCI device.

Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the power supply unit of the RCI device, and please contact our customer engineer.

---

**WARNING: FJSVscf: I2C error detected, error code=0xZZ, bus#=0xYY, slave address=0xNN  
sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0x00**

Meaning

Detected I2C error.

This message displays abnormality that this system detected.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ(error code=0xZZ) is an event code. This code is a code to identify the I2C error status and the phase.

0x0X : I2C write access error

0x1X : I2C read access error

0xYY(bus=0xYY) shows the bus number where the I2C error occurs.

0xNN(slave address=0xNN) shows the I2C slave address.

Action

Check the state of the SCF device, and please contact our customer engineer.

### 4.1.3 For PRIMEPOWER 250/450

---

#### **WARNING: FJSVscf: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources

---

#### **WARNING: FJSVscf: \_init: mod\_install failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of mod\_install(9F) (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources

---

#### **WARNING: FJSVscf: scf\_probe: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

#### **WARNING: FJSVscf: scf\_probe: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

#### **WARNING: /pci@#,###@#/FJSV,scf@#,#(scf#),scf\_probe: ddi\_dev\_nregs failed.**

Meaning

The register information in the SCF device is incorrect.

Action

Check the state of the system board

---

#### **WARNING: FJSVscf: scf\_attach: ddi\_get\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_iblock\_cookie(9F) (allocates resources for interrupt processing).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F)(gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the SCF driver into the system because the creation of the device minor node failed.

Action

Make sure there is enough room in the /device file system.

---

**WARNING: FJSVscf: scf\_attach: kmem\_zalloc failed.**

Meaning

kmem\_zalloc(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_intr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_intr(9F) (registers interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_iblock\_cookie(9F) (allocates resources for soft interrupt processing).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_softintr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_softintr(9F) (registers soft interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_detach: ddi\_get\_soft\_state failed.**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), IOCHRDY interrupt occurred.**

Meaning

IOCHRDY timeout(Ebus2 timeout) interrupt occurred.

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), DMA host bus error.**

Meaning

Host bus error interrupt occurred to the Ebus2 DMA.

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), SCF command (0xXXXX) receive data sum check error**

Meaning

Detected Sum check error to the receive data of SCF command(0xXXXX).

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), SCF command (0xXXXX) error. Status register = 0xYYYY**

Meaning

SCF command (0xXXXX) terminated abnormally. 0xYYYY represents the SCF-2 Status register. Status register has the following meaning by the value of the least significant four bits.

0xX1XX : Sending a command to SCF device was repeated five times due to RCI BUFFER-FULL on the SCF device. But they were not processed normally.

0xX2XX : Sending a command to SCF device was repeated fifteen times due to RCI device BUSY on the SCF device. But they were not processed normally.

0xX3XX : Sending a command to SCF device due to the error on the command Interface with the SCF device.



0xX8XX : The command and sub-command that it was sent to the SCF device was not supported.

0xX9XX : The command that it was sent to the SCF device failed with the parameter error.

0xXBXX : The device specified with the address for the command that it was sent to the SCF device does not exist on the RCI network, or RCI is inactive.

0xXCXX : The command that it was sent to the SCF device failed with the access error to hardware.

0xDXX : The command that it was sent to the SCF device failed with the violation of the execution condition

0xEXX : The command that it was sent to the SCF device failed with the BUFFER-FULL.

Action

Check the state of the SCF device.

---

**WARNING: /pci@#,##@#/FJSV,scf@#, #(scf#),XXX register parity error. Status register = 0xYYY Y**

Meaning

Parity error interrupt occurred to the XXX register read. 0xYYYY represents the XXX register. XXX is register name.

SCF command/status  
SCF interrupt status  
SCF interrupt mask  
SCF mode-sw  
SCF length

Action

Check the state of the system board and SCF device.

---

**WARNING: FJSVscf: SCF HALT was detected.**

Meaning

All SCF devices stopped. After this message was displayed, access to SCF device will be failed.

Action

Follow the instruction of the message displayed before this message.

---

**WARNING: FJSVscf: /pci@#,##@#/FJSV,scf@#, #(scf#), SCF command (0XXXX) timeout**

Meaning

The SCF command(0XXXX) could not complete a command within the prescribed time.

Action

Check the state of the system board and SCF device.

---

**WARNING: FJSVscf: scf\_intr: Unexpected POFF interrupt occurred**

Meaning

A POWER switch interrupt occurred while the mode switch on the operator panel was set to LOCK.

Action

Check the state of the mode switch.

---

**WARNING: FJSVscf: AC power down was detected. UPS is activated. RCI(addr = 0xXXXXXXXX X)**

Meaning

Power of RCI device (addr=0xXXXXXXXX) is now being supplied by the UPS due to a power down.

Action

Check the state of the power supply of RCI device.

---

**WARNING: FJSVscf: AC power down was detected. UPS is activated. AAA#?**

Meaning

Power is now being supplied by the UPS due to a power down of power supply unit.

AAA represents the power supply unit type. #? represents the unit number.

AAA#? will be displayed only if a unit failure occurred on the following units.

PSU

Action

Check the state of the power supply of power supply unit displayed in AAA#? .

---

**WARNING: FJSVscf: Input power down was detected. UPS is activated. RCI(addr = 0xXXXXX XXX)**

Meaning

Power of RCI device (addr=0xXXXXXXXX) is now being supplied by the UPS due to a power down.

Action

Check the state of the power supply of RCI device.

---

**WARNING: FJSVscf: Input power down was detected. UPS is activated. AAA#?**

Meaning

Power is now being supplied by the UPS due to a power down of power supply unit.

AAA represents the power supply unit type. #? represents the unit number.

AAA#? will be displayed only if a unit failure occurred on the following units.

PSU

Action

Check the state of the power supply of power supply unit displayed in AAA#? .

---

**WARNING: FJSVscf: power supply was stopped. AAA#?**

Meaning

The power supplied to power supply unit (AAA#?) stopped.

AAA represents the power supply unit type. #? represents the unit number.

AAA#? will be displayed only if a unit failure occurred on the following units.

PSU

Action

Check the state of the power supply of power supply unit displayed in AAA#? .

---

**FJSVscf: AC power recovered. RCI(addr = 0xXXXXXXXX)**

Meaning

The power supply of RCI device (addr=0xXXXXXXXX) was restored.

---

**FJSVscf: AC power recovered. AAA#?**

Meaning

The power supply to UPS connected with power supply unit (AAA#?) was restored.  
AAA represents the power supply unit type. #? represents the unit number.  
AAA#? will be displayed only if a unit failure occurred on the following units.

PSU

---

**FJSVscf: Input power recovered. RCI(addr = 0xXXXXXXXX)**

Meaning

The power supply of RCI device (addr=0xXXXXXXXX) was restored.

---

**FJSVscf: Input power recovered. AAA#?**

Meaning

The power supply to UPS connected with power supply unit (AAA#?) was restored.  
AAA represents the power supply unit type. #? represents the unit number.  
AAA#? will be displayed only if a unit failure occurred on the following units.

PSU

---

**FJSVscf: power supply was restored. AAA#?**

Meaning

The power supply to power supply unit (AAA#?) was restored.  
AAA represents the power supply unit type. #? represents the unit number.  
AAA#? will be displayed only if a unit failure occurred on the following units.

PSU

---

**WARNING: FJSVscf: fan unit failure on RCI(addr = 0xXXXXXXXX), AAA#? BBB#?, sub status = 0xX1, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0xMM**

Meaning

Detected a fan unit failure(sub status=0x01 or 0x81) on RCI device (addr = 0xXXXXXXXX).  
This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.  
When "sub status" is 0x81 and this system is abnormal, after this message is displayed the power off of the system is executed.  
When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.  
AAA represents the unit type. #? represents the unit number.  
AAA#? will be displayed only if a unit failure occurred on the following units.

FANTRAY : Fan tray

BBB represents the fan unit. #? represents the fan unit number.  
BBB#? will be displayed only if a fan unit failure occurred on the following units.

FAN : Fan unit

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x01 : Fan rotation decrease

0x02 : Fan rotation stop

0xYY is fan number, and the number which depends on the corresponding RCI device.

0xNN is fan tray number, and the number which depends on the corresponding RCI device.

0xMM shows the notified sense information, and depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the fan unit of the CCC#?, and please contact our customer engineer.

---

**WARNING: FJSVscf: power supply unit failure on RCI(addr = 0XXXXXXXX), AAA#?, sub status = 0xX2,**

**sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0xMM**

#### Meaning

Detected a power supply unit failure(sub status=0x02 or 0x82) on RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x82 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

AAA represents the power supply unit name. #? represents the power supply unit number.

AAA#? will be displayed only if a power supply unit failure occurred on the following power supply units.

FEP

PSU

CPUDDC

DDC-A

DDC-B

DDC-B

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x00 : An abnormal power supply unit cannot be specified.

0x01-04 : Power supply and voltage are abnormal.

0x05 : Power supply unit which depends on device is abnormal.

0xYY is detailed information which supplements the event code (0xZZ).

0xNN is a power supply unit type or number, and it depends on the corresponding RCI device.

0xMM shows the notified sense information, and depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the power supply unit of the BBB#?, and please contact our customer engineer.

---

**WARNING: FJSVscf: thermal alarm on RCI(addr = 0XXXXXXXX), AAA#?, sub status = 0xX6, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0xNN**

Meaning

Detected an abnormal temperature (sub status=0x06 or 0x86) on RCI device (addr = 0XXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected. When "sub status" is 0x86 and this system is abnormal, after this message is displayed the power off of the system is executed. When another device on RCI network is abnormal, the abnormal is notified to this system through RCI. AAA represents the sensor type. #? represents the sensor number. AMBIENT is an environmental temperature, and the number of # ? is not displayed. AAA#? will be displayed only if a sensor failure occurred on the following sensors.

CPU

SENSOR

AMBIENT

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

- 0x01 : Ambient temperature low temperature warning
- 0x02 : Ambient temperature low temperature alarm
- 0x03 : Ambient temperature high temperature warning
- 0x04 : Ambient temperature high temperature alarm
- 0x05 : Unit/Processor low temperature warning, or sensor failure
- 0x06 : Unit/Processor low temperature alarm, or sensor failure
- 0x07 : Unit/Processor high temperature warning
- 0x08 : unit/processor high temperature alarm

0xYY is sensor number, and it depends on the corresponding RCI device.

0xNN shows the notified sense information, and depends on the corresponding RCI device.

Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the environment where the unit is set up.

Also make sure there is nothing wrong with the inside of the RCI device.

---

**WARNING: FJSVscf: node error on RCI(addr = 0XXXXXXXX), sub status = 0x08, sense info = 0xXX 0xXX 0xXX 0xXX 0x00 0xZZ 0xYY 0xXX**

Meaning

Detected a node error (sub status=0x08) on RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

- 0x01 : The internal failure of RCI-I/O device
- 0x01-05 : SCF unit self-diagnosis error
- 0x90 : RCI network is abnormal (status check time-out)
- 0x91 : RCI address multiple error

0x92 : Host node is abnormal  
0x93 : RCI device connection failure of unregistration  
0x94 : SCF degeneracy  
0x95 : Sensor failure of Host node  
0xc0-ff : Hard error of RCI-I/O device

0xYY shows detailed information of RCI network abnormality(event code 0x90) or host node abnormality(event code 0x92). Or, when the inside abnormality of RCI-I/O device (event code 0x00), detailed information that depends on RCI-I/O device is shown. Other event codes are irregular values, and it does not have the meaning.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check RCI address is uniquely assigned to each RCI device, there are no RCI cable problems, RCI device are turned power on, unconfigured RCI devices are not connected or there are no internal failure in RCI devices. Please contact our customer engineer.

---

### **panic[cpuX]/thread = 0xXXXXXXXX: FJSVscf: panic request from RCI(addr = 0xXXXXXXXX)**

#### Meaning

The RCI device that has RCI address of 0xXXX requested the system panic.

#### Action

This message shows the state.

However, at the cluster environment etc. , another node (RCI address 0xXXXXXXXX) which detected abnormality issues the panic instruction to this node via RCI. And, when OS panic is executed, this node outputs this message.

Please investigate this node from information on another node (RCI address 0xXXXXXXXX).

---

### **NOTICE: FJSVscf: I/O node status sense from RCI(addr = 0xXXXXXXXX),sub status = 0x62, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0xMM 0x00**

#### Meaning

Detected a sensed information of I/O node status (sub status=0x062) from RCI device (addr = 0xXXXXXXXX).

This message displays the change of the state of this system or another device connected on the RCI network.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

When the RCI address is this system, details of sense info become as follows.

0xZZ shows the event code.

0x01 : add

0x02 : delete

0xYY shows unit type, and 0xMM shows unit number.

0x02 : FAN

0x03 : PSU

When the RCI address is another device, details of sense info become as follows.

0xZZ shows the event code.

0x01 : RCI-I/O device connection or power supply reentry

0x02 : RCI-I/O device disconnect

0xYY is type or number of RCI-I/O device, and it depends on corresponding RCI-I/O device.

Action

It is not necessary.

This message might be output in this system at maintenance.

When this message is frequently displayed, it is necessary to investigate. Please contact our customer engineer.

---

**WARNING: FJSVscf: device sense from RCI(addr = 0XXXXXXXX), sub status = 0xYY, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xZZ 0xZZ 0xZZ 0xZZ**

Meaning

Detected a sensed information form RCI device(addr = 0XXXXXXXX) that SCF driver does not support or undefined.

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

0xYY shows the event code notified the SCF driver.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows notified sense information, and is an irregular value.

Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the corresponding RCI device, and please contact our customer engineer.

When RCI device is this system, check whether to operate about "Machine Administration".

---

**WARNING: FJSVscf: UPS low battery on RCI(addr = 0XXXXXXXX) was detected. sub status = 0xX5, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

Meaning

Detected a power supply end of UPS (sub status=0x05 or 0x85) of RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x01 : UPS became an electrical discharge end voltage.

0xYY is UPS number, and it depends on the corresponding RCI device.

Action

When this message is displayed, it is necessary to check the abnormality of UPS connected with the RCI device displayed with addr.

UPS battery is charged, or please contact our customer engineer.

---

**WARNING: FJSVscf: UPS failure on RCI(addr = 0XXXXXXXX) was detected. sub status = 0xX5, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

Meaning

Detected a UPS failure (sub status=0x05 or 0x85) of RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x02 : UPS hardware failure

0x03 : UPS battery failure

0x04 : UPS circuit protector failure

0xYY is UPS number and detail information, and it depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of UPS connected with the RCI device displayed with addr.

Check to make sure that nothing is wrong with the UPS, or please contact our customer engineer.

---

**WARNING: FJSVscf: battery alarm on RCI(addr = 0XXXXXXXX), AAA#?, sub status = 0xX3, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

#### Meaning

Detected the lithium battery failure in the device (sub status=0x03 or 0x83) of RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

AAA represents the lithium battery type. #? represents the lithium battery number.

AAA will be displayed only if a lithium battery failure occurred on the following lithium battery.

NVRAM

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x02 : Abnormality of low voltage

0xYY is the lithium battery number and detail information, and it depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the lithium battery of the AAA#?, and please contact our customer engineer.

---

**WARNING: FJSVscf: cannot report PANIC.**

#### Meaning

Could not notify the system panic on the other HOST when it occurred.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_dev\_resize failed.**

#### Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_dev\_resize(9F) (gets the register size).

#### Action

Check the state of the SCF device.

---



**WARNING: FJSVscf: scf\_map\_regs: ddi\_regs\_map\_setup failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: kstat\_create failed.**

Meaning

kstat\_create(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVscf: switch status is unknown**

Meaning

There is a problem with the panel switch setting.

Action

Check the state of the panel switch.

---

**WARNING: FJSVscf: kstat memory allocation error**

Meaning

There is not enough memory.

Action

Allocate memory since there might not be enough kernel resources.

---

**FJSVscf: ignoring debug enter sequence**

Meaning

STOP-A was entered while the MODE switch on the operator panel was set to LOCK.

---

**FJSVscf: allowing debug enter**

Meaning

STOP-A was entered.

---

**WARNING: FJSVscf: SCF went to offline mode and was restarted**

Meaning

SCF entered the OFFLINE state and was reset.

Action

Follow the output message of after this.

---

**NOTICE: FJSVscf: SCF online**

Meaning

Resetting of the SCF device completed, and the device entered the ONLINE state.

---

**WARNING: FJSVscf: SCF went to offline mode again.**

Meaning

SCF entered the ONLINE state after resetting the SCF device, but SCF entered the OFFLINE state again.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: SCF did not become online.**

Meaning

SCF did not enter the ONLINE state after resetting the SCF device.

Action

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf\_get\_scftacelog: kmem\_alloc failed. cannot dump firm area**

Meaning

Failed in the memory securing in reset of the SCF device, and it failed in the firmware dump collection of the SCF device.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_get\_scftacelog: kmem\_alloc failed. cannot event trace area**

Meaning

Failed in the memory securing in reset of the SCF device, and it failed in the event trace collection of the SCF device.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVscf: SCF went to offline mode by firm update**

Meaning

SCF device entered the OFFLINE state by update of the SCF firmware.

---

**NOTICE: FJSVscf: SCF went to offline mode by XSCF network activation**

Meaning

SCF device entered the OFFLINE state by network activation of the XSCF.

**4.1.4 For GP7000F models 1000/2000 and PRIMEPOWER 800/1000/2000**

---

**WARNING: FJSVscf: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: \_init: mod\_install failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of mod\_install(9F) (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_probe: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_probe: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: /pci@#,###@#/FJSV,scf@#,#(scf#),scf\_probe: ddi\_dev\_nregs failed.**

Meaning

The register information in the SCF device is incorrect.

Action

Check the state of the system board

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_iblock\_cookie(9F) (allocates resources for interrupt processing).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_attach: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F)(gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the SCF driver into the system because the creation of the device minor node failed.

Action

Make sure there is enough room in the /device file system.

---

**WARNING: FJSVscf: scf\_attach: kmem\_zalloc failed.**

Meaning

kmem\_zalloc(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_intr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_intr(9F) (registers interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_alloc\_handle failed.**

Meaning

ddi\_dma\_alloc\_handle(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_mem\_alloc failed.**

Meaning

ddi\_dma\_mem\_alloc(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_addr\_bind\_handle failed.**

Meaning

ddi\_dma\_addr\_bind\_handle (9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_addr\_bind\_handle countp error.**

Meaning

Could not allocate continuity area to the abnormal termination of ddi\_dma\_addr\_bind\_handle(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_detach: ddi\_get\_soft\_state failed.**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), IOCHRDY interrupt occurred.**

Meaning

IOCHRDY timeout(Ebus2 timeout) interrupt occurred.

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), DMA host bus error.**

Meaning

Host bus error interrupt occurred to the Ebus2 DMA.

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), SCF command (0xXXXX) receive data sum check error**

Meaning

Detected Sum check error to the receive data of SCF command(0xXXXX).

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), SCF command (0xXXXX) error. Status register = 0xYYYY**

Meaning

SCF command (0xXXXX) terminated abnormally. 0xYYYY represents the SCF-2 Status register. Status register has the following meaning by the value of the least significant four bits.

0xXXX1 : Sending a command to SCF device was repeated ten times due to BUFFER-FULL on the SCF device. But they were not processed normally.

0xXXX2 : Sending a command to SCF device was repeated fifteen times due to RCI device BUSY on the SCF device. But they were not processed normally.

0xXXX3 : Sending a command to SCF device due to the error on the command Interface with the SCF device.

0xXXX8 : The command and sub-command that it was sent to the SCF device was not supported.

0xXXX9 : The command that it was sent to the SCF device failed with the parameter error.

0xXXXA : The command that it was sent to the SCF device was a breach of command path.

0xXXXB : The device specified with the address for the command that it was sent to the SCF device does not exist on the RCI network, or RCI is inactive.

**Action**

Check the state of the SCF device.

---

**SCFC path changed.(/pci@#,###@#/FJSV,scfc@#, #(scfc#) --> /pci@#,###@#/FJSV,scfc@#, #(scfc#))**

**Meaning**

Detected SCF device failure.

**Action**

Follow the instruction of the message displayed before this message.

---

**WARNING: FJSVscf: SCF HALT was detected.**

**Meaning**

All SCF devices stopped. After this message was displayed, access to SCF device will be failed.

**Action**

Follow the instruction of the message displayed before this message.

In addition, confirm the state of the system board or the SCF device from System Console Software (SCS).

---

**WARNING: FJSVscf: SCF ready interrupt occurred.**

**Meaning**

SCF device was changed.

---

**WARNING: FJSVscf: /pci@#,###@#/FJSV,scfc@#, #(scfc#), SCF command (0xXXXX) timeout**

**Meaning**

The SCF command(0xXXXX) could not complete a command within the prescribed time.

**Action**

Check the state of the system board and SCF device.

---

**WARNING: FJSVscf: /pci@#,###@#/FJSV,scfc@#, #(scfc#), XXX register read error**

**Meaning**

Recovered by re-reading thought an I/O register reading error occurred.

XXX is register name.

SCF-2 command

SCF-2 Status

SCF-2 tx data

SCF-2 rx data

SCF-2 control  
SCF-2 interrupt status  
Ebus-2 dma control  
DMA csr  
DMA address control  
DMA byte control

---

**WARNING: /pci@#,##@#/FJSV,scf@#,#(scf#),offline**

Meaning

Detected SCF device failure.

Action

Check the state of the system board and SCF device.

---

**WARNING: FJSVscf: scf\_intr: Unexpected POFF interrupt occurred**

Meaning

A POWER switch interrupt occurred while the mode switch on the operator panel was set to LOCK.

Action

Check the state of the mode switch.

---

**WARNING: FJSVscf: AC power down was detected. UPS is activated. RCI(addr = 0xXXXXXXXX X)**

Meaning

Power is now being supplied by the UPS due to a power down.

Action

Check the state of the power supply.

---

**FJSVscf: AC power recovered. RCI(addr = 0xXXXXXXXX)**

Meaning

Power was restored on the RCI device(0xXXXXXXXX).

---

**WARNING: FJSVscf: fan unit failure on RCI(addr = 0xXXXXXXXX), FAN#?, sub status = 0xX1, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0x00**

Meaning

Detected a fan unit failure(sub status=0x01 or 0x81) on RCI device (addr = 0xXXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x81 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

FAN#? represents the fan unit number.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

0x01 : Fan rotation decrease

0x02 : Fan rotation stop

0xYY is fan number, and the number which depends on the corresponding RCI device.

0xNN is fan tray number, and the number which depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the fan unit of the FAN#?, and please contact our customer engineer

---

**WARNING: FJSVscf: power supply unit failure on RCI(addr = 0XXXXXXXX), AAA#?, sub status = 0xX2,**

**sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0x00**

#### Meaning

Detected a power supply unit failure(sub status=0x02 or 0x82) on RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x82 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

AAA represents the power supply unit name. #? represents the power supply unit number.

FEP

SB

XB-DDC

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x00 : An abnormal power supply unit cannot be specified.

0x01-04 : Power supply and voltage are abnormal.

0x05 : Power supply unit which depends on device is abnormal.

0xYY is detailed information which supplements the event code (0xZZ).

0xNN is a power supply unit type or number, and it depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the power supply unit of the AAA#?, and please contact our customer engineer.

---

**WARNING: FJSVscf: thermal alarm on RCI(addr = 0XXXXXXXX), CPU#?, sub status = 0xX6,**  
**sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

#### Meaning

Detected an abnormal temperature (sub status=0x06 or 0x86) on RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x86 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

CPU#? represents the CPU sensor number or sensor number.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.



0x01 : Ambient temperature low temperature warning  
 0x02 : Ambient temperature low temperature alarm  
 0x03 : Ambient temperature high temperature warning  
 0x04 : Ambient temperature high temperature alarm  
 0x05 : Unit/Processor low temperature warning, or sensor failure  
 0x06 : Unit/Processor low temperature alarm, or sensor failure  
 0x07 : Unit/Processor high temperature warning  
 0x08 : unit/processor high temperature alarm

0xYY is sensor number, and it depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the environment where the unit is set up.

Also make sure there is nothing wrong with the inside of the RCI device.

**WARNING: FJSVscf: node error on RCI(addr = 0xXXXXXXXX), sub status = 0x08, sense info = 0xXX 0xXX 0xXX 0xXX 0x00 0xZZ 0xYY 0x00**

#### Meaning

Detected a node error (sub status=0x08) on RCI device (addr = 0xXXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

0x01 : The internal failure of RCI-I/O device  
 0x01-05 : SCF unit self-diagnosis error  
 0x90 : RCI network is abnormal (status check time-out)  
 0x91 : RCI address multiple error  
 0x92 : Host node is abnormal  
 0x93 : RCI device connection failure of unregistration  
 0x94 : SCF degeneracy  
 0xc0-ff : Hard error of RCI-I/O device

0xYY shows detailed information of RCI network abnormality(event code 0x90) or host node abnormality(event code 0x92). Or, when the inside abnormality of RCI-I/O device (event code 0x00), detailed information that depends on RCI-I/O device is shown. Other event codes are irregular values, and it does not have the meaning.

#### Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check RCI address is uniquely assigned to each RCI device, there are no RCI cable problems, RCI device are turned power on, unconfigured RCI devices are not connected or there are no internal failure in RCI devices. Please contact our customer engineer.

**panic[cpuX]/thread = 0xXXXXXXXX: FJSVscf: panic request from RCI(addr = 0xXXXXXXXX)**

#### Meaning

The RCI device that has RCI address of 0xXXXXXXXX requested the system panic.

Action

This message shows the state.

However, at the cluster environment etc. , another node (RCI address 0xXXXXXXXX) which detected abnormality issues the panic instruction to this node via RCI. And, when OS panic is executed, this node outputs this message.

Please investigate this node from information on another node (RCI address 0xXXXXXXXX).

---

**NOTICE: FJSVscf: I/O node status sense from RCI(addr = 0xXXXXXXXX),sub status = 0x62, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0xYY**

Meaning

Detected a sensed information of I/O node status (sub status=0x062) from RCI device (addr = 0xXXXXXXXX).

This message displays the change of the state of another device connected on the RCI network.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

0x01 : RCI-I/O device connection or power supply reentry

0x02 : RCI-I/O device disconnect

0xYY is type or number of RCI-I/O device, and it depends on corresponding RCI-I/O device.

Action

It is not necessary.

When this message is frequently displayed, it is necessary to investigate the RCI device, and please contact our customer engineer.

---

**WARNING: FJSVscf: device sense from RCI(addr = 0xXXXXXXXX), sub status = 0xYY, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xZZ 0xZZ 0xZZ**

Meaning

Detected a sensed information from RCI device(addr = 0xXXXXXXXX) that SCF driver does not support or undefined.

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

0xYY shows the event code notified the SCF driver.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows notified sense information, and is an irregular value.

Action

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the corresponding RCI device, and please contact our customer engineer.

When RCI device is this system, check whether to operate about "Machine Administration".

---

**WARNING: FJSVscf: UPS low battery on RCI(addr = 0xXXXXXXXX) was detected. sub status = 0xX5,**

**sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

Meaning

Detected a power supply end of UPS (sub status=0x05 or 0x85) of RCI device (addr = 0xXXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x01 : UPS became an electrical discharge end voltage.

0xYY is UPS number, and it depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of UPS connected with the RCI device displayed with addr.

UPS battery is charged, or please contact our customer engineer.

---

### **WARNING: FJSVscf: UPS failure on RCI(addr = 0XXXXXXXX) was detected. sub status = 0xX5,**

**sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0x00**

#### Meaning

Detected a UPS failure (sub status=0x05 or 0x85) of RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x02 : UPS hardware failure

0x03 : UPS battery failure

0x04 : UPS circuit protector failure

0xYY is UPS number and detail information, and it depends on the corresponding RCI device.

#### Action

When this message is displayed, it is necessary to check the abnormality of UPS connected with the RCI device displayed with addr.

Check to make sure that nothing is wrong with the UPS, or please contact our customer engineer.

---

### **WARNING: FJSVscf: cannot report PANIC.**

#### Meaning

Could not notify the system panic on the other HOST when it occurred.

---

### **WARNING: FJSVscf: scf\_map\_regs: ddi\_dev\_regsz failed.**

#### Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_dev\_regsz(9F) (gets the register size).

#### Action

Check the state of the SCF device.

---

### **WARNING: FJSVscf: scf\_map\_regs: ddi\_regs\_map\_setup failed.**

#### Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: kstat\_create failed.**

Meaning

kstat\_create(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVscf: switch status is unknown**

Meaning

There is a problem with the panel switch setting.

Action

Check the state of the panel switch.

---

**WARNING: FJSVscf: kstat memory allocation error**

Meaning

There is not enough memory.

Action

Allocate memory since there might not be enough kernel resources.

---

**FJSVscf: ignoring debug enter sequence**

Meaning

STOP-A was entered while the MODE switch on the operator panel was set to LOCK.

---

**FJSVscf: allowing debug enter**

Meaning

STOP-A was entered.

**4.1.5 For PRIMEPOWER 650/850/900/1500/2500/HPC2500**

---

**WARNING: FJSVscf: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: \_init: mod\_install failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of mod\_install(9F) (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJVSscf: scf\_probe: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJVSscf: scf\_probe: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: /pci@#,###@#/FJVS,scf@#, #(scf#),scf\_probe: ddi\_dev\_nregs failed.**

Meaning

The register information in the SCF device is incorrect.

Action

Check the state of the system board.

---

**WARNING: FJVSscf: scf\_attach: ddi\_get\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_iblock\_cookie(9F) (allocates resources for interrupt processing).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJVSscf: scf\_attach: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJVSscf: scf\_attach: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F)(gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the SCF driver into the system because the creation of the device minor node failed.

Action

Make sure there is enough room in the /device file system.

---

**WARNING: FJSVscf: scf\_attach: kmem\_zalloc failed.**

Meaning

kmem\_zalloc(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_intr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_intr(9F) (registers interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_get\_soft\_iblock\_cookie failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_get\_soft\_iblock\_cookie(9F) (allocates resources for soft interrupt processing).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_attach: ddi\_add\_softintr failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_add\_softintr(9F) (registers soft interrupt functions).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_alloc\_handle failed.**

Meaning

ddi\_dma\_alloc\_handle(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_mem\_alloc failed.**

Meaning

ddi\_dma\_mem\_alloc(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_addr\_bind\_handle failed.**

Meaning

ddi\_dma\_addr\_bind\_handle (9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_dma\_alloc: ddi\_dma\_addr\_bind\_handle ccountp error.**

Meaning

Could not allocate continuity area to the abnormal termination of ddi\_dma\_addr\_bind\_handle(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: scf\_detach: ddi\_get\_soft\_state failed.**

Meaning

Could not detach the SCF driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (gets an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: /pci@#,##@#/FJSV,scf@#, #(scf#), IOCHRDY interrupt occurred.**

Meaning

IOCHRDY timeout(Ebus2 timeout) interrupt occurred.

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,##@#/FJSV,scf@#, #(scf#), DMA host bus error.**

Meaning

Host bus error interrupt occurred to the Ebus2 DMA.

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,##@#/FJSV,scf@#, #(scf#), SCF command (0xXXXX) receive data sum check error**

Meaning

Detected Sum check error to the receive data of SCF command(0xXXXX).

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,##@#/FJSV,scf@#, #(scf#), SCF command (0xXXXX) error. Status register = 0xYYYY**

Meaning

SCF command (0xXXXX) terminated abnormally. 0xYYYY represents the SCF-2 Status register. Status register has the following meaning by the value of the least significant four bits.

0xXX1X : Sending a command to SCF device was repeated ten times due to BUFFER-FULL on the SCF device. But they were not processed normally.

0xXX2X : Sending a command to SCF device was repeated fifteen times due to RCI device BUSY on the SCF device. But they were not processed normally.

0xXX3X : Sending a command to SCF device due to the error on the command Interface with the SCF device.

0xXX8X : The command and sub-command that it was sent to the SCF device was not supported.

0xXX9X : The command that it was sent to the SCF device failed with the parameter error.

0xXXAX : The command that it was sent to the SCF device was a breach of command path.

0xXXBX : The device specified with the address for the command that it was sent to the SCF device does not exist on the RCI network, or RCI is inactive.

Action

Check the state of the SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#),XXX register parity error. Status register = 0xYYY Y**

Meaning

Parity error interrupt occurred to the XXX register read. 0xYYYY represents the XXX register. XXX is register name.

SCFI interrupt status

SCFI status

Action

Check the state of the system board and SCF device.

---

**WARNING: /pci@#,#/#/FJSV,scf@#,#(scf#), EBus2 DMA channel reset timeout.**

Meaning

Channel reset timeout occurred to the Ebus-2 DMA.

Action

Check the state of the system board and SCF device.

---

**SCFC path changed.(/pci@#,#/#/FJSV,scf@#,#(scf#) --> /pci@#,#/#/FJSV,scf@#,#(scf#))**

Meaning

Detected SCF device failure.

Action

Follow the instruction of the message displayed before this message.

---

**WARNING: FJSVscf: SCF HALT was detected.**

Meaning

All SCF devices stopped. After this message was displayed, access to SCF device will be failed.

Action

Follow the instruction of the message displayed before this message.



In addition, confirm the state of the system board or the SCF device from System Console Software (SCS) for PRIMEPOWER 900/1500/2500/HPC2500.

---

**WARNING: FJSVscf: SCF ready interrupt occurred.**

Meaning

SCF device was changed.

---

**WARNING: FJSVscf: /pci@#,###@#/FJSV,scfc@#, #(scfc#), SCF command (0xXXXX) timeout**

Meaning

The SCF command(0xXXXX) could not complete a command within the prescribed time.

Action

Check the state of the system board and SCF device.

---

**WARNING: FJSVscf: /pci@#,###@#/FJSV,scfc@#, #(scfc#), XXX register read error**

Meaning

Recovered by re-reading thought an I/O register reading error occurred.

XXX is register name.

SCFI command

SCFI Status

SCFI tx data

SCFI rx data

SCFI control

SCFI interrupt status

Ebus-2 dma control

DMA csr

DMA address control

DMA byte control

LED write enable

internal disk LED control

---

**WARNING: /pci@#,###@#/FJSV,scfc@#, #(scfc#),offline**

Meaning

Detected SCF device failure.

Action

Check the state of the system board and SCF device.

---

**WARNING: FJSVscf: scf\_intr: Unexpected POFF interrupt occurred**

Meaning

A POWER switch interrupt occurred while the mode switch on the operator panel was set to LOCK.

Action

Check the state of the mode switch.

---

**WARNING: FJSVscf: AC power down was detected. UPS is activated. RCI(addr = 0xXXXXXXXX X)**

**Meaning**

Power is now being supplied by the UPS due to a power down.

**Action**

Check the state of the power supply.

---

**FJSVscf: AC power recovered. RCI(addr = 0xXXXXXXXX)**

**Meaning**

Power was restored on the RCI device(0xXXX).

---

**WARNING: FJSVscf: fan unit failure on RCI(addr = 0xXXXXXXXX), AAA#? BBB#? CCC#?, sub status = 0xX1, sense info = 0xXX 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0xMM 0xMM**

**Meaning**

Detected a fan unit failure(sub status=0x01 or 0x81) on RCI device (addr = 0xXXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x81 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

AAA represents the cabinet type. #? represents the cabinet number.

AAA#? will be displayed only if a cabinet type failure occurred on the following cabinet type.

Cabinet#0 : Main Cabinet  
Cabinet#1 : Expansion Cabinet  
Rack : I/O Rack  
P-Cabinet : Power Cabinet

BBB represents the unit type. #? represents the unit number.

BBB#? will be displayed only if a unit failure occurred on the following units.

FANTRAY : Fan tray  
PCI-BOX : PCI-BOX  
PCI/DISK-BOX : PCI/Disk-BOX

CCC represents the fan unit. #? represents the fan unit number.

CCC#? will be displayed only if a fan unit failure occurred on the following units.

FAN : fan unit  
PSU : PSU or fan unit of the PCI-BOX or PCI/DISK-BOX

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

0x01 : Fan rotation decrease  
0x02 : Fan rotation stop

0xYY is fan number, and the number which depends on the corresponding RCI device.

0xNN is fan tray number, and the number which depends on the corresponding RCI device.

0xMM shows the notified sense information, and depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the fan unit of the CCC#? , and please contact our customer engineer.

---

**WARNING: FJSVscf power supply unit failure on RCI(addr = 0XXXXXXXX), AAA#? BBB#?, sub status = 0xX2, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0xMM 0xMM**

**Meaning**

Detected a power supply unit failure(sub status=0x02 or 0x82) on RCI device (addr = 0XXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When "sub status" is 0x82 and this system is abnormal, after this message is displayed the power off of the system is executed.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

AAA represents the cabinet type. #? represents the cabinet number.

AAA#? will be displayed only if a cabinet type failure occurred on the following cabinet type.

Cabinet#0 : Main Cabinet  
Cabinet#1 : Expansion Cabinet  
Rack : I/O Rack  
P-Cabinet : Power Cabinet

BBB represents the power supply unit name. #? represents the power supply unit number.

BBB#? will be displayed only if a power supply unit failure occurred on the following power supply units.

SCF : SCF Board  
FEP : FEP  
CONV : Converter  
SB : System Board  
PCI-BOX : PCI-BOX  
PCI/DISK-BOX : PCI/Disk-BOX  
DTB : DTB (Data Transfer unit Board)  
XB-DDC : Crossbar DDC

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x00 : An abnormal power supply unit cannot be specified.  
0x01-04 : Power supply and voltage are abnormal.  
0x05 : Power supply unit which depends on device is abnormal.

0xYY is detailed information which supplements the event code (0xZZ).

0xNN is a power supply unit type or number, and it depends on the corresponding RCI device.

0xMM shows the notified sense information, and depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the power supply unit of the BBB#?, and please contact our customer engineer.

---

**WARNING: FJSVscf thermal alarm on RCI(addr = 0xXXXXXXXX), AAA#? BBB#? CCC#?, sub status = 0xX6, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xNN 0xNN 0xNN**

**Meaning**

Detected an abnormal temperature (sub status=0x06 or 0x86) on RCI device (addr = 0xXXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected. When "sub status" is 0x86 and this system is abnormal, after this message is displayed the power off of the system is executed. When another device on RCI network is abnormal, the abnormal is notified to this system through RCI. AAA represents the cabinet type. #? represents the cabinet number. AAA#? will be displayed only if a cabinet type failure occurred on the following cabinet type.

- Cabinet#0 : Main Cabinet
- Cabinet#1 : Expansion Cabinet
- Rack : I/O Rack
- P-Cabinet : Power Cabinet

BBB represents the unit type. #? represents the unit number. BBB#? will be displayed only if a unit failure occurred on the following units.

- SB : System Board
- PCI-BOX : PCI-BOX
- PCI/DISK-BOX : PCI/Disk BOX
- DISK : DISK Bay Unit
- XB : Crossbar
- EXT-PWR : Power Unit

CCC represents the sensor type. #? represents the sensor number. CCC#? will be displayed only if a sensor failure occurred on the following sensors.

- CPU
- SENSOR

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

- 0x01 : Ambient temperature low temperature warning
- 0x02 : Ambient temperature low temperature alarm
- 0x03 : Ambient temperature high temperature warning
- 0x04 : Ambient temperature high temperature alarm
- 0x05 : Unit/Processor low temperature warning, or sensor failure
- 0x06 : Unit/Processor low temperature alarm, or sensor failure
- 0x07 : Unit/Processor high temperature warning
- 0x08 : unit/processor high temperature alarm

0xYY is sensor number, and it depends on the corresponding RCI device.

0xNN shows the notified sense information, and depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check the environment where the unit is set up.

Also make sure there is nothing wrong with the inside of the RCI device.

**WARNING: FJVSvcf: node error on RCI(addr = 0xXXXXXXXX), sub status = 0x08, sense info = 0xXX 0xXX 0xXX 0xXX 0x00 0xZZ 0xYY 0xYY**

**Meaning**

Detected a node error (sub status=0x08) on RCI device (addr = 0xXXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

0xZZ shows the event code.

- 0x01 : The internal failure of RCI-I/O device
- 0x01-05 : SCF unit self-diagnosis error
- 0x90 : RCI network is abnormal (status check time-out)
- 0x91 : RCI address multiple error
- 0x92 : Host node is abnormal
- 0x93 : RCI device connection failure of unregistration
- 0x94 : SCF degeneracy
- 0xc0-ff : Hard error of RCI-I/O device

0xYY shows detailed information of RCI network abnormality(event code 0x90) or host node abnormality(event code 0x92). Or, when the inside abnormality of RCI-I/O device (event code 0x00), detailed information that depends on RCI-I/O device is shown. Other event codes are irregular values, and it does not have the meaning.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.

Check RCI address is uniquely assigned to each RCI device, there are no RCI cable problems, RCI device are turned power on, unconfigured RCI devices are not connected or there are no internal failure in RCI devices. Please contact our customer engineer.

---

**panic[cpuX]/thread = 0xXXXXXXXX: FJVSvcf: panic request from RCI(addr = 0xXXXXXXXX)**

**Meaning**

The RCI device that has RCI address of 0xXXX requested the system panic.

**Action**

This message shows the state.

However, at the cluster environment etc. , another node (RCI address 0xXXXXXXXX) which detected abnormality issues the panic instruction to this node via RCI. And, when OS panic is executed, this node outputs this message.

Please investigate this node from information on another node (RCI address 0xXXXXXXXX).

---

**NOTICE: FJVSvcf: I/O node status sense from RCI(addr = 0xXXXXXXXX),sub status = 0x62, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0xYY 0xYY 0xYY**

**Meaning**

Detected a sensed information of I/O node status (sub status=0x062) from RCI device (addr = 0xXXXXXXXX).

This message displays the change of the state of this system or another device connected on the RCI network.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0xXXXXXXXX".

When the RCI address is this system, details of sense info become as follows.

0xZZ shows the event code.

- 0x01 : add
- 0x02 : delete

0xYY shows unit type, and 0xMM shows unit number.

- 0x01 : SCF (SCF board)
- 0x02 : FAN
- 0x03 : FEP
- 0x04 : CONV (Converter)
- 0x05 : SB (System Board)
- 0x06 : PCIBOX or PCI/Disk-BOX
- 0x07 : XB-DDC (Crossbar DDC)

0xNN shows cabinet type and cabinet number (X).

- 0x00 : RCI-I/O device
- 0x2X : Main Cabinet or Expansion Cabinet
- 0x06 : Power Cabinet
- 0x07 : I/O Rack

When the RCI address is another device, details of sense info become as follows.

0xZZ shows the event code.

- 0x01 : RCI-I/O device connection or power supply reentry
- 0x02 : RCI-I/O device disconnect

0xYY is type or number of RCI-I/O device, and it depends on corresponding RCI-I/O device.

**Action**

It is not necessary.  
 This message might be output in this system at maintenance.  
 When this message is frequently displayed, it is necessary to investigate. Please contact our customer engineer.

**WARNING: FJSVscf device sense from RCI(addr = 0XXXXXXXX), sub status = 0xYY, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xZZ 0xZZ 0xZZ 0xZZ**

**Meaning**

Detected a sensed information form RCI device(addr = 0XXXXXXXX) that SCF driver does not support or undefined.  
 This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.  
 When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.  
 0xYY shows the event code notified the SCF driver.  
 Sense info shows the following meanings.  
 Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".  
 0xZZ shows notified sense information, and is an irregular value.

**Action**

When this message is displayed, it is necessary to check the abnormality of the RCI device displayed with addr.  
 Check the corresponding RCI device, and please contact our customer engineer.  
 When RCI device is this system, check whether to operate about "Machine Administration".

**WARNING: FJSVscf: UPS low battery on RCI(addr = 0XXXXXXXX) was detected. sub status = 0xX5, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

**Meaning**

Detected a power supply end of UPS (sub status=0x05 or 0x85) of RCI device (addr = 0XXXXXXXX). This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x01 : UPS became an electrical discharge end voltage.

0xYY is UPS number, and it depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of UPS connected with the RCI device displayed with addr.

UPS battery is charged, or please contact our customer engineer.

---

**WARNING: FJSVscf: UPS failure on RCI(addr = 0XXXXXXXX) was detected. sub status = 0xX5, sense info = 0xXX 0xXX 0xXX 0xXX 0xZZ 0xYY 0x00 0x00**

**Meaning**

Detected a UPS failure (sub status=0x05 or 0x85) of RCI device (addr = 0XXXXXXXX).

This message displays abnormality that this system detected, and abnormality that another device connected on the RCI network detected.

When another device on RCI network is abnormal, the abnormal is notified to this system through RCI.

Sense info shows the following meanings.

Four bytes of 0xXX show the address of the RCI device, and are the same as "addr = 0XXXXXXXX".

0xZZ shows the event code.

0x02 : UPS hardware failure

0x03 : UPS battery failure

0x04 : UPS circuit protector failure

0xYY is UPS number and detail information, and it depends on the corresponding RCI device.

**Action**

When this message is displayed, it is necessary to check the abnormality of UPS connected with the RCI device displayed with addr.

Check to make sure that nothing is wrong with the UPS, or please contact our customer engineer.

---

**WARNING: FJSVscf: cannot report PANIC.**

**Meaning**

Could not notify the system panic on the other HOST when it occurred.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_dev\_regsz failed.**

**Meaning**

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_dev\_regsz(9F) (gets the register size).

**Action**

Check the state of the SCF device.

---

**WARNING: FJSVscf: scf\_map\_regs: ddi\_regs\_map\_setup failed.**

Meaning

Failed to incorporate the SCF driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVscf: kstat\_create failed.**

Meaning

kstat\_create(9F) failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVscf: switch status is unknown**

Meaning

There is a problem with the panel switch setting.

Action

Check the state of the panel switch.

---

**WARNING: FJSVscf: kstat memory allocation error**

Meaning

There is not enough memory.

Action

Allocate memory since there might not be enough kernel resources.

---

**FJSVscf: ignoring debug enter sequence**

Meaning

STOP-A was entered while the MODE switch on the operator panel was set to LOCK.

---

**FJSVscf: allowing debug enter**

Meaning

STOP-A was entered.

## 4.2 Disk Fault LED Driver

---

**NOTICE: FJSVfled: ddi\_poke80 failed.**

Meaning

ddi\_poke8(9F) failed during probe.

Action

Allocate memory since there might not be enough kernel resources.

---



**NOTICE: FJsvfled: ddi\_regs\_map\_setup() failed.**

Meaning

ddi\_regs\_map\_setup(9F) failed during probe or attach.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvfled: fled\_probe() failed.**

Meaning

probe failed

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvfled: ddi\_create\_minor\_node() failed.**

Meaning

ddi\_create\_minor\_node(9F) failed during attach.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvfled: ddi\_soft\_state\_zalloc() failed.**

Meaning

ddi\_soft\_state\_zalloc(9F) failed during attach.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvfled: ddi\_get\_soft\_state() failed.**

Meaning

ddi\_get\_soft\_state(9F) failed during resume or getinfo.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvfled: fled\_attach() failed.**

Meaning

attach failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJsvfled: fled\_getinfo() failed.**

Meaning

getinfo failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVfled: kmem\_zalloc() failed.**

Meaning

kmem\_zalloc(9F) failed

Action

Allocate memory since there might not be enough kernel resources.

---

**NOTICE: FJSVfled: fled\_read\_prop() failed.**

Meaning

Failed to read property led-control-0 or led-control-1.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfled: ddi\_dev\_is\_sid() failed.**

Meaning

ddi\_dsv\_is\_sid(9F) failed during probe.

Action

Allocate memory since there might not be enough kernel resources.

## 4.3 SCSI Fault LED Driver

---

**WARNING: FJSVsflod: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate SCSI Fault LED driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsflod: \_init: mod\_install failed.**

Meaning

Failed to incorporate SCSI Fault LED driver into the system due to the abnormal termination of mod\_install(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsflod: \_fini: mod\_remove failed.**

Meaning

Failed to remove SCSI Fault LED driver from the system due to the abnormal termination of mod\_remove(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsfled: scsi\_probe failed.**

Meaning

Failed to attach SCSI Fault LED driver into the system due to the abnormal termination of scsi\_probe(9F).

Action

Check the state of SCSI Fault LED device or SCSI Host bus adapter.

---

**WARNING: FJSVsfled: ddi\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate SCSI Fault LED driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsfled: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate SCSI Fault LED driver into the system because the creation of the device minor node failed.

Action

Make sure there is enough room in the /devices file system.

---

**WARNING: FJSVsfled: scsi\_alloc\_consistent\_buf failed.**

Meaning

Failed to allocate kernel resources for SCSI transport.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsfled: resource allocation for request sense packet failed.**

Meaning

Failed to allocate kernel resources for SCSI transport.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsfled: ddi\_get\_soft\_state failed.**

Meaning

Failed to retrieve the kernel resources due to the abnormal termination of ddi\_get\_soft\_state(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsfled: ddi\_copyin failed.**

Meaning

Failed ioctl due to the abnormal termination of ddi\_copyin(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsflcd: ddi\_copyout failed.**

Meaning

Failed ioctl due to the abnormal termination of ddi\_copyout(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsflcd: sfled\_start: SCSI transport error occurred.**

Meaning

SCSI transport error occurred on SCSI Host bus adapter.

Action

If this message is displayed repeatedly, check the state of SCSI Host bus adapter.

---

**WARNING: FJSVsflcd: scsi\_init\_pkt failed.**

Meaning

Failed to allocate kernel resources for SCSI transport.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVsflcd: sfled\_restart: SCSI transport error occurred.**

Meaning

SCSI transport error occurred on SCSI Host bus adapter.

Action

If this message is displayed repeatedly, check the state of SCSI Host bus adapter.

---

**WARNING: FJSVsflcd: sfled\_callback: SCSI transport error occurred.**

Meaning

Error occurred during SCSI command transportation.

Action

If this message is displayed repeatedly, check the state of SCsIFault LED device or SCSI Host bus adapter.

---

**WARNING: "device node name" (FJSVsflcd?):  
: status=0x?,sense\_key=0x?,ASC=0x?,ASCQ=0x?**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsflcd?):  
: No Sense**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Illegal Request (Invalid command operation code)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Illegal Request (Logical unit not supported)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Illegal Request**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Unit Attention (Power-on, reset, or bus device reset occurred)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Unit Attention**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Aborted Command (Message Error)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Aborted Command (SCSI parity error)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Aborted Command (Initiator detected error message received)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Aborted Command (Invalid message error)**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Aborted Command**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

---

**WARNING: "device node name" (FJSVsfled?):  
: Unknown Reason**

Meaning

SCSI command error occurred on Fault LED device described as "device node name".

Action

If this message is displayed repeatedly, check the state of SCSI Fault LED device.

## 4.4 FJSVwdl Driver

---

**WARNING: FJSVwdl: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the FJSVwdl driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: \_init: mod\_install failed.**

Meaning

Failed to incorporate the FJSVwdl driver into the system due to the abnormal termination of mod\_install(9F) (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_attach: ddi\_get\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the FJSVwdl driver into the system due to the abnormal termination of ddi\_get\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_attach: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the FJSVwdl driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_detach: ddi\_get\_soft\_state failed.**

Meaning

Could not detach the FJSVwdl driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_ioctl: ddi\_get\_soft\_state failed.**

Meaning

Could not ioctl the FJSVwdl driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_read: ddi\_get\_softstate failed.**

Meaning

Could not read the FJSVwdl driver due to the abnormal termination of ddi\_get\_softstate(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_mmap: ddi\_get\_soft\_state failed.**

Meaning

Could not mmap the FJSVwdl driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_attach: ddi\_regs\_map\_setup failed.**

Meaning

Failed to incorporate the FJSVwdl driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVwdl: wdl\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the FJSVwdl driver into the system because the creation of the device minor node failed.

Action

Allocate memory since there might not be enough kernel resources.

## 4.5 Flash Update Driver

---

**WARNING: FJSVfupd: \_init: ddi\_soft\_state\_init failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_soft\_state\_init(9F).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: \_init: mod\_install failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of mod\_install(9F) (incorporates the driver into the system).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_probe: ddi\_get\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_get\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---



**WARNING: FJSVfupd: fupd\_probe: ddi\_dev\_regsizе failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (acquisition of register size).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_probe: ddi\_get\_soft\_state failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_get\_soft\_state(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_attach: ddi\_get\_soft\_state\_zalloc failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_attach: ddi\_dev\_regsizе failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_soft\_state\_zalloc(9F) (acquisition of register size).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_attach: ddi\_create\_minor\_node failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system because the creation of the device minor node failed.

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_attach: ddi\_regs\_map\_setup failed.**

Meaning

Failed to incorporate the FJSVfupd driver into the system due to the abnormal termination of ddi\_regs\_map\_setup(9F) (maps register).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_detach: ddi\_get\_soft\_state failed.**

Meaning

Could not detach the FJSVfupd driver due to the abnormal termination of ddi\_get\_soft\_state(9F)

(allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

---

**WARNING: FJSVfupd: fupd\_ioctl: ddi\_get\_soft\_state failed.**

Meaning

Could not ioctl the FJSVfupd driver due to the abnormal termination of ddi\_get\_soft\_state(9F) (allocates an area for the driver).

Action

Allocate memory since there might not be enough kernel resources.

# Chapter 5 Daemon Messages

This chapter gives the meaning of messages displayed by SCF Monitoring daemon of each model. It also describes what to do when you get error messages.

The system call error messages listed below are described by `man -s 2 Intro`.

## 5.1 SCF Monitoring Daemon

Please refer to the message of the corresponding model for SCF Monitoring message.

### 5.1.1 For PRIMEPOWER 1

---

**pwrctrl: Power switch is pressed. Press power switch again within 5 seconds to start shutdown procedure**

Meaning

The POWER switch was pressed. Pressing it again within five seconds starts the shutdown process.

---

**pwrctrl: power switch ignored.**

Meaning

The POWER switch was pressed but was ignored by the `scfconf(1M)` setting.

---

**pwrctrl: failed to start (xxx)**

Meaning

Could not start the SCF monitoring daemon. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to open pwrctrl pid file.**

Meaning

Could not create the PID file.

Action

Check the capacity of the root file system and whether it is mounted in a write-enabled state.

---

**pwrctrl: halt system.**

Meaning

System shut down due to an error.

---

**pwrctrl: failed to start power switch procedure (xxx)**

Meaning

Pressing the POWER switch failed to initiate the shutdown procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Supply Unit failure procedure (xxx)**

Meaning

Failed to initiate power supply failure procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start FAN failure procedure (xxx)**

Meaning

Failed to initiate fan failure procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start thermal alarm procedure (xxx)**

Meaning

Failed to initiate abnormal temperature procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start SCFHALT procedure (xxx)**

Meaning

Failed to initiate SCFHALT procedure. xx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Off procedure (xxx)**

Meaning

Failed to initiate Power Off procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**/etc/rc0.d/K00FJSVscf: scfreport shutdown was executed.**

Meaning

Reported the start of system shutdown to SCF device.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

---

**FJSVscf: The system power down is executed 30 seconds later.**

Meaning

The power off of the system is begun 30 seconds later. This message shows the state.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

### 5.1.2 For GP7000F models 200/200R/400/400A/400R/600/600R and PRIMEPOWER 200/400/600

---

**pwrctrl: Power switch is pressed. Press power switch again within 5 seconds to start shutdown procedure**

Meaning

The POWER switch was pressed. Pressing it again within five seconds starts the shutdown process.

---

**pwrctrl: power switch ignored.**

Meaning

The POWER switch was pressed but was ignored by the scftool(1M) setting.

---

**pwrctrl: failed to start (xxx)**

Meaning

Could not start the SCF monitoring daemon. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to open pwrctrl pid file.**

Meaning

Could not create the PID file.

Action

Check the capacity of the root file system and whether it is mounted in a write-enabled state.

---

**pwrctrl: halt system.**

Meaning

System shut down due to an error.

---

**pwrctrl: failed to start power switch procedure (xxx)**

Meaning

Pressing the POWER switch failed to initiate the shutdown procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start UPS AC down procedure (xxx)**

Meaning

Failed to initiate UPS switch over procedure when power failed. xxx represents the system call that failed.

Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to start UPS AC recovery procedure (xxx)**

Meaning  
Failed to initiate UPS procedure after power was restored. xxx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Supply Unit failure procedure (xxx)**

Meaning  
Failed to initiate power supply failure procedure. xxx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to start FAN failure procedure (xxx)**

Meaning  
Failed to initiate fan failure procedure. xxx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to start THERMAL alarm procedure (xxx)**

Meaning  
Failed to initiate abnormal temperature procedure. xxx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to get SCF dump size**

Meaning  
Failed to get dump size of SCF driver.  
Action  
Check the state of the SCF device.

---

**pwrctrl: Illegal SCF dump size.**

Meaning  
The dump size of the SCF driver was 0 or less.  
Action  
Check the state of the SCF device.

---

**pwrctrl: Insufficient memory space for SCF dump**

Meaning  
Could not get enough memory for the SCF driver dump.

Action  
Allocate memory or a swap area.

---

**pwrctrl: SCF dump failed**

Meaning  
The SCF drive dump process failed.  
Action  
Allocate memory.

---

**pwrctrl: /var/opt/FJSVhwr/scf.dump: System call error message**

Meaning  
Could not create SCF dump file.  
Action  
Check the /var file system.

---

**pwrctrl: cannot write SCF dump file**

Meaning  
Could not create SCF dump file.  
Action  
Check the /var file system.

---

**pwrctrl: failed to start SCFHALT procedure (xxx)**

Meaning  
Failed to initiate SCFHALT procedure. xx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to start RCI Power Off procedure (xxx)**

Meaning  
Failed to initiate RCI Power Off procedure. xxx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Off procedure (xxx)**

Meaning  
Failed to initiate Power Off procedure. xxx represents the system call that failed.  
Action  
Allocate memory or a swap area.

---

**pwrctrl: failed to open /var/opt/FJSVhwr/pwrctrl.lock**

Meaning  
Could not open the /var/opt/FJSVhwr/pwrctrl.lock file.

Action

Check the `/var/opt/FJSVhwr/pwrctrld.lock` file.

---

**pwrctrld: SCF daemon is already running.**

Meaning

SCF daemon is already running.

---

**pwrctrld: lockf() failed**

Meaning

Failed to get the file to be locked by lockf function.

Action

Check the `/var/opt/FJSVhwr/pwrctrld.lock` file.

---

**/etc/rc0.d/K00FJSVscf: scfreport shutdown was executed.**

Meaning

Reported the start of system shutdown to SCF device.

This message might be stored in message log (`/var/adm/messages`) as "daemon.error". However, it is not abnormal.

---

**FJSVscf: The system power down is executed 30 seconds later.**

Meaning

The power off of the system is begun 30 seconds later. This message shows the state.

This message might be stored in message log (`/var/adm/messages`) as "daemon.error". However, it is not abnormal.

### 5.1.3 For PRIMEPOWER 250/450

---

**pwrctrld: power switch ignored.**

Meaning

The POWER switch was pressed but was ignored by the `scftool(1M)` setting.

---

**pwrctrld: failed to start (xxx)**

Meaning

Could not start the SCF monitoring daemon. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrld: failed to open pwrctrld pid file.**

Meaning

Could not create the PID file.

Action

Check the capacity of the root file system and whether it is mounted in a write-enabled state.



---

**pwrctrl: halt system.**

Meaning

System shut down due to an error.

---

**pwrctrl: failed to start power switch procedure (xxx)**

Meaning

Pressing the POWER switch failed to initiate the shutdown procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start UPS AC down procedure (xxx)**

Meaning

Failed to initiate UPS switch over procedure when power failed. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start SCFHALT procedure (xxx)**

Meaning

Failed to initiate SCFHALT procedure. xx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: Power failure was detected. Waiting power to be supplied for n second(s). RCI addr = 0xXXX(0xYYY)**

Meaning

Power down occurred. 0xXXX represents the RCI address of UPS. When the dual power feed configuration is defined, 0xYYY represents the RCI address of UPS pairs.

Action

Check the UPS.

---

**pwrctrl: Power is supplied. The system keeps services on. RCI addr = 0xXXX(0xYYY)**

Meaning

Power was restored. 0xXXX represents the RCI address of UPS. When the dual power feed configuration is defined, 0xYYY represents the address of UPS pairs.

---

**pwrctrl: failed to start SHUTDOWN procedure (xxx)**

Meaning

Failed to initiate SHUTDOWN procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start RCI-POFF procedure (xxx)**

Meaning

Failed to initiate RCI power down procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Supply Unit failure procedure (xxx)**

Meaning

Failed to initiate power supply unit failure procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start FAN failure procedure (xxx)**

Meaning

Failed to initiate FAN failure procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start THERMAL alarm procedure (xxx)**

Meaning

Failed to initiate THERMAL alarm procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Off procedure (xxx)**

Meaning

Failed to initiate Power Off procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**/etc/rc0.d/K00FJSVscf: scfreport shutdown was executed.**

Meaning

Reported the start of system shutdown to SCF device.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

---

**FJSVscf: The system power down is executed 30 seconds later.**

Meaning

The power off of the system is begun 30 seconds later. This message shows the state.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

#### 5.1.4 For GP7000F models 1000/2000 and PRIMEPOWER 800/1000/2000

---

**pwrctrld: Power switch is pressed. Press power switch again within 30 seconds to start shutdown procedure**

Meaning

The POWER switch was pressed. Pressing it again within 30 seconds starts the shutdown process.

---

**pwrctrld: power switch ignored.**

Meaning

The POWER switch was pressed but was ignored by the scftool(1M) setting.

---

**pwrctrld: failed to start (xxx)**

Meaning

Could not start the SCF monitoring daemon. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrld: failed to open pwrctrld pid file.**

Meaning

Could not create the PID file.

Action

Check the capacity of the root file system and whether it is mounted in a write-enabled state.

---

**pwrctrld: halt system.**

Meaning

System shut down due to an error.

---

**pwrctrld: failed to start power switch procedure (xxx)**

Meaning

Pressing the POWER switch failed to initiate the shutdown procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrld: failed to start UPS AC down procedure (xxx)**

Meaning

Failed to initiate UPS switch over procedure when power failed. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start SCFHALT procedure (xxx)**

Meaning

Failed to initiate SCFHALT procedure. xx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: Power failure was detected. Waiting power to be supplied for n second(s). RCI addr = 0xXXX(0xYYY)**

Meaning

Power down occurred. 0xXXX represents the RCI address of UPS. When the dual power feed configuration is defined, 0xYYY represents the RCI address of UPS pairs.

Action

Check the UPS.

---

**pwrctrl: Power is supplied. The system keeps services on. RCI addr = 0xXXX(0xYYY)**

Meaning

Power was restored. 0xXXX represents the RCI address of UPS. When the dual power feed configuration is defined, 0xYYY represents the address of UPS pairs.

---

**pwrctrl: failed to start SHUTDOWN procedure (xxx)**

Meaning

Failed to initiate SHUTDOWN procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start RCI-POFF procedure (xxx)**

Meaning

Failed to initiate RCI power down procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**/etc/rc0.d/K00FJSVscf: scfreport shutdown was executed.**

Meaning

Reported the start of system shutdown to SCF device.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

---

**FJSVscf: The system power down is executed 30 seconds later.**

Meaning

The power off of the system is begun 30 seconds later. This message shows the state.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

### 5.1.5 For PRIMEPOWER 650/850/900/1500/2500/HPC2500

---

**pwrctrl: power switch ignored.**

Meaning

The POWER switch was pressed but was ignored by the scftool(1M) setting.

---

**pwrctrl: failed to start (xxx)**

Meaning

Could not start the SCF monitoring daemon. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to open pwrctrl pid file.**

Meaning

Could not create the PID file.

Action

Check the capacity of the root file system and whether it is mounted in a write-enabled state.

---

**pwrctrl: halt system.**

Meaning

System shut down due to an error.

---

**pwrctrl: failed to start power switch procedure (xxx)**

Meaning

Pressing the POWER switch failed to initiate the shutdown procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start UPS AC down procedure (xxx)**

Meaning

Failed to initiate UPS switch over procedure when power failed. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start SCFHALT procedure (xxx)**

Meaning

Failed to initiate SCFHALT procedure. xx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: Power failure was detected. Waiting power to be supplied for n second(s). RCI addr = 0xXXX(0xYYY)**

Meaning

Power down occurred. 0xXXX represents the RCI address of UPS. When the dual power feed configuration is defined, 0xYYY represents the RCI address of UPS pairs.

Action

Check the UPS.

---

**pwrctrl: Power is supplied. The system keeps services on. RCI addr = 0xXXX(0xYYY)**

Meaning

Power was restored. 0xXXX represents the RCI address of UPS. When the dual power feed configuration is defined, 0xYYY represents the address of UPS pairs.

---

**pwrctrl: failed to start SHUTDOWN procedure (xxx)**

Meaning

Failed to initiate SHUTDOWN procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start RCI-POFF procedure (xxx)**

Meaning

Failed to initiate RCI power down procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start Power Supply Unit failure procedure (xxx)**

Meaning

Failed to initiate power supply unit failure procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrl: failed to start FAN failure procedure (xxx)**

Meaning

Failed to initiate FAN failure procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrlrd: failed to start THERMAL alarm procedure (xxx)**

Meaning

Failed to initiate THERMAL alarm procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**pwrctrlrd: failed to start Power Off procedure (xxx)**

Meaning

Failed to initiate Power Off procedure. xxx represents the system call that failed.

Action

Allocate memory or a swap area.

---

**/etc/rc0.d/K00FJSVscf: scfreport shutdown was executed.**

Meaning

Reported the start of system shutdown to SCF device.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.

---

**FJSVscf: The system power down is executed 30 seconds later.**

Meaning

The power off of the system is begun 30 seconds later. This message shows the state.

This message might be stored in message log (/var/adm/messages) as "daemon.error". However, it is not abnormal.





# Chapter 6 Command Messages

This chapter gives the meaning of messages displayed by command that SCF driver offers. It also describes what to do when you get error messages.

The system call error messages listed below are described by `man -s 2 Intro`.

## 6.1 `fjprtdiag(1M)` command

---

### `fjprtdiag [ -v ] [ -1 ]`

Meaning

Displayed when there is an error in the way a command option was used.

---

### **fjprtdiag: Cannot get node name**

Meaning

Could not get node information of OBP.

Action

Check the "name" property on the root node of OBP.

---

### **fjprtdiag: Cannot get property information for memory**

Meaning

Could not get OBP memory information.

Action

Check the "simm-use" and "simm-status" properties on the memory node of OBP.

---

### **fjprtdiag: Cannot get model property**

Meaning

Could not get model property information of OBP.

Action

Check the "model" property on the root node of OBP.

---

### **fjprtdiag: Illegal simm-use property**

Meaning

The content of the simm-use property on the memory node of OBP is illegal.

Action

Check the simm-use property.

---

### **fjprtdiag: Illegal simm-status property**

Meaning

The content of the simm-status property on the memory node of OBP is illegal.

Action

Check the simm-status property.

---

**malloc for memory information failed: System call error message**

Meaning

Could not allocate a data area for storing memory information.

Action

Allocate memory or a swap area.

---

**malloc: System call error message**

Meaning

Could not allocate memory.

Action

Allocate memory or a swap area.

---

**fjprtdiag: cannot open /dev/openprom: System call error message**

Meaning

Failed to open /dev/openprom.

Action

Check the /dev/openprom file.

---

**fjprtdiag: close error on /dev/openprom: System call error message**

Meaning

Failed to close /dev/openprom.

Action

Check the /dev/openprom file.

---

**Prom node has no properties**

Meaning

Found a OBP device node that does not have any properties.

Action

Check the OBP device node.

---

**fjprtdiag: openepr device open failed: System call error message**

Meaning

Failed to open /dev/openprom.

Action

Check the /dev/openprom file.

---

**fjprtdiag: /dev/openprom open failed: System call error message**

Meaning

Failed to open /dev/openprom.

Action

Check the /dev/openprom file.

---

**System architecture does not support this option of this command.**

Meaning

The system does not support this command.

Action

Run the command on a system that supports it.

---

**open of /devices failed: System call error message**

Meaning

Failed to open /devices.

Action

Check the /devices directory and the files under it.

---

**ffb data malloc failed: System call error message**

Meaning

Could not allocate a data area for storing FFB information.

Action

Allocate memory or a swap area.

---

**No PCI bus in this system.**

Meaning

The system that runs the command does not have PCI bus.

Action

fjprtdiag is a command that is platform dependent.  
Run a command suitable for the platform.

---

**picl\_initialize failed: System call error message**

Meaning

Failed in access to the PICL daemon.

Action

When the error message is "Daemon not responding"  
Check if PICL daemon is working correctly. Execute the command again.  
When the error message is not listed above.  
Execute the command again.  
When still becoming the error, please contact the customer engineer.

---

**Getting root node failed: System call error message**

Meaning

Failed in access to the PICL library.

Action

Execute the command again. When still becoming the error, please contact the customer engineer.

---

## 6.2 diskadm(1M) command

---

**Usage: diskadm action pathname ...**

Meaning

Displayed when there is an error in the way a command option was used.

---

**diskadm: Not support.**

Meaning

The model not supported executed the command

Action

Enter a correct path name. Also make sure that the SCF driver package is installed properly.

---

**diskadm: Only root is allowed to execute this program.**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**diskadm: Path name: Incorrect controller.**

Meaning

A controller that does not exist was specified as a path name, or could not access the SCSI Fault LED device driver.

Action

Enter a correct path name. Also make sure that the SCF driver package is installed properly.

---

**diskadm: Path name: Incorrect controller is specified, or specified controller is not supported.**

Meaning

A controller that does not exist was specified as a path name, or A controller not supported by the diskadm command was specified, or could not access the SCSI Fault LED device driver.

Action

Enter a correct path name. Also make sure that the SCF driver package is installed properly.

---

**diskadm: Path name: Illegal path name.**

Meaning

An illegal path name was specified.

Action

Enter a correct path name.

---

**diskadm: Path name: No such device.**

Meaning

A controller that does not exist was specified as a path name.

Action

Enter a correct path name.

---

**diskadm: /dev/FJSVhwr/fled: open() failed: System call error message**

Meaning

For GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 1/200/400/600

Failed to open the Fault LED device driver.

For PRIMEPOWER 250/450/650/850/900/1500/2500/HPC2500

Failed to open the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**diskadm: ioctl() --- FLED\_IOC\_GET\_PROP failed: System call error message**

Meaning

For GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 1/200/400/600

ioctl(2) to the Fault LED device driver failed and the property (led-control-0/1) could not be read.

For PRIMEPOWER 250/450/650/850/900/1500/2500/HPC2500

ioctl(2) to the SCF driver failed and the property (led-control-0 for 79) could not be read.

Action

Make sure that the SCF driver package is installed properly.

---

**diskadm: ioctl() --- FLED\_IOC\_POWER failed: System call error message**

Meaning

ioctl(2) to the Fault LED device driver failed and the write to or read from a register failed.

Action

Make sure that the SCF driver package is installed properly.

---

**diskadm: ioctl() --- FLED\_IOC\_POWER\_GET failed: System call error message**

Meaning

ioctl(2) to the SCF driver failed and the write to or read from a register failed.

Action

Make sure that the SCF driver package is installed properly.

---

**diskadm: strdup() failed: System call error message**

Meaning

strdup(3C) failed.

Action

Allocate memory or a swap area.

---

**diskadm: malloc() failed: System call error message**

Meaning

malloc(3C) failed.

Action

Allocate memory or a swap area.

---

**diskadm: /dev/rdisk: opendir() failed: System call error message**

Meaning

/dev/rdisk opendir(3C) failed.

Action

Check the /dev/rdisk directory.

---

**diskadm: getcwd() failed: System call error message**

Meaning

getcwd(3C) failed.

Action

Use fsck(1M) to make sure that the root file system has not been damaged.

---

**diskadm: path name: lstat() failed: System call error message**

Meaning

lstat(2) failed.

Action

Use fsck(1M) to make sure that the root file system has not been damaged.

---

**diskadm: path name: readlink() failed: System call error message**

Meaning

readlink(2) failed.

Action

Use fsck(1M) to make sure that the root file system has not been damaged.

---

**diskadm: path name: chdir() failed: System call error message**

Meaning

chdir(2) failed.

Action

Use fsck(1M) to make sure that the root file system has not been damaged.

---

**diskadm: path name: disk not responding.**

Meaning

Disk controller is not responding or disk is not installed.

Action

Check if the disk is installed correctly. Check if disk controller is working correctly.

---

**Warning: Cannot lstat file name**

Meaning

File lstat(2) failed. (File name is the file under /dev/rdisk)

Action

Check the /dev/rdisk directory.

---

**Warning: file name is not a symbolic link**

Meaning

A file other than a symbolic link is in the /dev/rdisk directory.

Action

There is problem with the /dev/rdisk directory. Reboot the system using boot -r.

---

**Warning: path name already started, but trying again.**

Meaning

The device is already booted but diskadm is trying again.

---

**Warning: path name already stopped, but trying again.**

Meaning

The device is already stopped, but diskadm is trying again.

---

**diskadm: /dev/FJSVhwr opendir() failed: System call error message**

Meaning

/dev/FJSVhwr opendir(3C) failed.

Action

Make sure that the SCF driver package is installed properly.

---

**diskadm: ioctl() --- SFLED\_IOC\_LIST failed: System call error message**

Meaning

ioctl(2) to the SCSI Fault LED device driver failed.

Action

Check the state of SCSI Fault LED device.

---

**diskadm: ioctl() --- SFLED\_IOC\_OFF failed: System call error message**

Meaning

ioctl(2) to the SCSI Fault LED device driver failed.

Action

Check the state of SCSI Fault LED device.

---

**diskadm: ioctl() --- SFLED\_IOC\_ON failed: System call error message**

Meaning

ioctl(2) to the SCSI Fault LED device driver failed.

Action

Check the state of SCSI Fault LED device.

---

**diskadm: /dev/FJSVhwr/sfledX: open failed: Device Busy**

Meaning

Another diskadm command is being executed.

Action

Execute the command again.

---

**diskadm: /dev/es/sesX: open failed: Device Busy**

Meaning

Another diskadm command is being executed, or failed to open the SES device driver.

Action

Execute the command again.

---

**diskadm: /dev/openprom: open() failed: System call error message**

Meaning

Failed to open /dev/openprom.

Action

Check the /dev/openprom file.

---

**diskadm: ioctl() --- OPROMNXTPROP failed: System call error message**

Meaning

ioctl(2) to the /dev/openprom failed.

Action

Check the /dev/openprom file.

---

**diskadm: ioctl() --- OPROMGETPROP failed: System call error message**

Meaning

ioctl(2) to the /dev/openprom failed.

Action

Check the /dev/openprom file.

---

**diskadm: ioctl() --- OPROMNEXT failed: System call error message**

Meaning

ioctl(2) to the /dev/openprom failed.

Action

Check the /dev/openprom file.

---

**diskadm: ioctl() --- OPROMCHILD failed: System call error message**

Meaning

ioctl(2) to the /dev/openprom failed.

Action

Check the /dev/openprom file.

---



**diskadm: ioctl0 --- SESIOC\_GETNOBJ failed: System call error message**

Meaning

ioctl(2) to the SES device driver failed.

Action

Check the /dev/es/sesX file.

---

**diskadm: ioctl0 --- SESIOC\_SETNOBJ failed: System call error message**

Meaning

ioctl(2) to the SES device driver failed.

Action

Check the /dev/es/sesX file.

---

**diskadm: ioctl0 --- USCSICMD failed: System call error message**

Meaning

ioctl(2) to the SES device driver failed.

Action

Check the /dev/es/sesX file.

---

**diskadm: sysinfo0 failed: System call error message**

Meaning

sysinfo(2) to the SES device driver failed.

Action

Check the /dev/es/sesX file.

## 6.3 hsadm(1M) command

---

**Usage: hsadm action unit**

Meaning

Displayed when there is an error in the way a command option was used.

---

**hsadm: Only root is allowed to execute this program.**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**hsadm: /dev/FJSVhwr/pwrctl open() failed: System call error message**

Meaning

Failed to open the SCF driver

Action

Make sure that the SCF driver package is installed properly.

---

**hsadm: ioctl() --- SCFIOCALMCTRL failed: System call error message**

Meaning

ioctl(2) to the SCF driver failed.

Action

Make sure that the SCF driver package is installed properly.

---

**hsadm: malloc() failed: System call error message**

Meaning

malloc(3C) failed.

Action

Allocate memory or a swap area.

---

**hsadm: kstat\_open() failed: System call error message**

Meaning

kstat\_open(3K) failed.

Action

Make sure that the SCF driver package is installed properly.

---

**hsadm: fan\_unit: kstat\_lookup() failed: System call error message**

Meaning

Could not read the fan state.

Action

Make sure that the SCF driver package is installed properly.

---

**hsadm: power\_unit: kstat\_lookup() failed: System call error message**

Meaning

Could not read power supply state.

Action

Make sure that the SCF driver package is installed properly.

---

**hsadm: kstat\_read() failed: System call error message**

Meaning

kstat\_read(3K) failed.

Action

Make sure that the SCF driver package is installed properly.

## 6.4 scfdate(1M) command

---

**usage: scfdate [sync]**

Meaning

Displayed when there is an error in the way a command option was used.

---

**scfdate: not super user**

## Meaning

The command was executed using user privileges other than root.

## Action

Execute the command using root user privileges.

---

**/dev/FJSVhwr/pwrctl: System call error message**

## Meaning

Failed to open the SCF driver.

## Action

Make sure that the SCF driver package is installed properly.

---

## 6.5 scfconf(1M) command

---

**Usage: scfconf [-p {1|2|off}] [-c {scf|tod}] [-u time]**

## Meaning

Displayed when there is an error in the way a command option was used.

It is displayed for GP7000F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER 1/100/200/400/600.

---

**Usage: scfconf [-p {1|2|off}] [-c {scf|tod}] [-u time] [-r on|off] [-t on|off]**

## Meaning

Displayed when there is an error in the way a command option was used.

It is displayed for GP7000 F model 1000/2000 and PRIMEPOWER 800/1000/2000.

---

**scfconf: not super user**

## Meaning

The command was executed using user privileges other than root.

## Action

Execute the command using root user privileges.

---

**/etc/opt/FJSVhwr/pwrctl.property: not found.**

## Meaning

Could not find the /var/opt/FJSVhwr/pwrctrl.lock file.

## Action

Make sure that the SCF driver package is installed properly.

---

**/etc/opt/FJSVhwr/scf.conf: not found.**

## Meaning

Could not find the /etc/opt/FJSVhwr/scf.conf file.

## Action

Make sure that the SCF driver package is installed properly.

---

**/opt/FJShwr/sbin/scfconf: illegal option -- xxx**

Meaning

The specified option xxx cannot be specified.

Action

Specify the proper option.

## 6.6 scftool(1M) command

---

**scftool: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**"SCF Clock" mode is selected.**

**The system clock is now based on "SCF Clock".**

**In this mode, when you change the "System default" clock (by using "date" command etc.), you need to synchronize "SCF Clock" by the following command:**

**# scfddate sync**

Meaning

The SCF high-resolution clock setting was changed to "SCF Clock."

When the menu is operated by scftool with GP7000 F model 200/200R/400/400A/400R/600/600R and PRIMEPOWER1/100/200/400/600, it is displayed.

## 6.7 scf2tod(1M) command

---

**usage: scf2tod**

Meaning

Displayed when there is an error in the way a command option was used.

## 6.8 srambackup(1M) command

---

**srambackup: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**WARNING: SCF SRAM contents recovered, check SCF battery please**

Meaning

The data backed up by the SCF battery was lost, and instead was restored from a backup.

Action

After the motherboard is changed, this message might be displayed. In this case, the action is unnecessary.

If displayed by not listed above, check the SCF battery.

---

**/dev/FJSVhwr/pwrctl: System call error message**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**File name: System call error message**

Meaning

Could not access the SCF SRAM backup file.

Action

Check the file system containing the SCF SRAM backup file.

---

**can't rename file name 1 to file name 2**

Meaning

You cannot change the name of the SCF SRAM backup file.

Action

Check the file system containing the SCF SRAM backup file.

---

**srambackup: out of memory**

Meaning

There is not enough memory.

Action

Allocate memory or a swap area.

## 6.9 scferrlog(1M) command

---

**/dev/FJSVhwr/pwrctl: System call error message**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**File name: System call error message**

Meaning

Could not open the file for creating the SCF error log.

Action

Check the file system containing the file for creating the SCF error log.

---

**scferrlog: write: System call error message**

## Meaning

write(2) failed on the file for creating the SCF error log.

## Action

Check the file system containing the file for creating the SCF error log.

---

**6.10 scfpwrlog(1M) command****File name: System call error message**

## Meaning

Could not open the file for creating the power log.

## Action

Check the file system containing the file for creating the power log.

---

**/dev/FJSVhwr/pwrctl: System call error message**

## Meaning

Could not access the SCF driver.

## Action

Make sure that the SCF driver package is installed properly.

---

**scfpwrlog: fstat: System call error message**

## Meaning

fstat(2) failed on the file for creating the power log.

## Action

Check the file system containing the file for creating the power log.

---

**lseek: System call error message**

## Meaning

lseek(2) failed on the file for creating the power log.

## Action

Check the file system containing the file for creating the power log.

---

**read: System call error message**

## Meaning

read(2) failed on the file for creating the power log.

## Action

Check the file system containing the file for creating the power log.

---

**scfpwrlog: write: System call error message**

## Meaning

write(2) failed on the file for creating the power log.

## Action

Check the file system containing the file for creating the power log.

## 6.11 scfreport(1M) command

---

**Usage:** `scfreport [ running | shutdown ]`

Meaning

Displayed when there is an error in the way a command option was used.

---

**scfreport: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**/dev/FJSVhwr/pwrctl: System call error message**

**/dev/FJSVhwr/pwrctl2: System call error message**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**/etc/rc0.d/K00FJSVscf: scfreport shutdown was executed.**

Meaning

Reported the start of system shutdown to SCF device.

In the case where power down occurred after this message was displayed, the system will not boot when power is restored.

This message might be stored in message log (`/var/adm/messages`) as "daemon.error". However, it is not abnormal.

---

## 6.12 lcdecho(1M) command

---

**/dev/FJSVhwr/pwrctl: System call error message**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

## 6.13 scfwatchdog(1M) command

---

**Usage:** `scfwatchdog [ enable | disable ]`

Meaning

Displayed when there is an error in the way a command option was used.

---

### **scfwatcdog: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

### **scfwatcdog: System call error message**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

## **6.14 voltconf(1M) command**

---

### **Usage: voltconf [-h|-l|-n]**

**-h:** VH, **-l:** VL, **-n:** VN

Meaning

Displayed when there is an error in the way a command option was used.

---

### **/dev/FJSVhwr/pwrctl: System call error message**

Meaning

Could not access /dev/FJSVhwr/pwrctl device.

Action

Check the /dev/FJSVhwr/pwrctl file.

Make sure that the SCF driver package is installed properly.

---

### **ioctl: System call error message**

Meaning

ioctl of the SCF driver failed.

Action

Make sure that the SCF driver package is installed properly.

## **6.15 rciinfo(1M) command**

---

### **rciinfo: failed to open /dev/FJSVhwr/rcict1**

**rciinfo: failed to open /dev/FJSVhwr/rcict12**

Meaning

Failed to open the SCF driver

Action

Make sure that the SCF driver package is installed properly.

---



**rciinfo: ioctl() failed**

Meaning

Could not access the SCF driver.

Action

Check the state of the SCF device.

---

**rciinfo: malloc() failed**

Meaning

Could not allocate memory.

Action

Allocate memory or a swap area.

## 6.16 rcinodeadm(1M) command

---

**usage: rcinodeadm address { enable | disable }**

Meaning

Displayed when there is an error in the way a command option was used.

---

**rcinodeadm: failed to open /dev/FJSVhwr/rcictl**

Meaning

Failed to open SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**rcinodeadm: invalid rci address**

Meaning

Invalid RCI address was specified.

Action

Enter a correct RCI address.

---

**rcinodeadm: ioctl() failed**

Meaning

Could not access the SCF driver.

Action

Check the state of the SCF device.

---

**rcinodeadm: RCI xxx does not exist**

Meaning

The RCI device that address has specified RCI address XXX does not exist.

Action

Enter a correct RCI address.

## 6.17 rcihello(1M) command

---

**usage:** `rcihello { on | off } [ address ]`

Meaning

Displayed when there is an error in the way a command option was used.

---

**rcihello: failed to open /dev/FJSVhwr/rcictl**

Meaning

Failed to open SCF driver

Action

Make sure that the SCF driver package is installed properly.

---

**rcihello: invalid rci address**

Meaning

Invalid RCI address was specified.

Action

Enter a correct RCI address.

---

**rcihello: RCI xxx does not exist**

Meaning

The RCI device that has specified RCI address XXX does not exist.

Action

Enter a correct RCI address.

---

**rcihello: ioctl() failed**

Meaning

Could not access the SCF driver.

Action

Check the state of the SCF device.

---

**rcihello: ioctl() failed. could not set led status on RCI(addr = xx)**

Meaning

Could not set led status on the RCI device of the address displayed.

Action

Check the RCI device of the address displayed.

## 6.18 savewdlog(1M) command

---

**usage: savewdlog directory**

Meaning

Displayed when there is an error in the way a command option was used.

---

**/dev/FJSVhwr/watchdoglog: System call error message**

Meaning

Access to /dev/FJSVhwr/watchdoglog failed.

Action

Make sure that the SCF driver package is installed properly.

---

**bad hostid format**

Meaning

The gethostid system call failed.

Action

Allocate memory or a swap area.

---

**savewdlog: System call error message**

Meaning

There is not enough memory.

Action

Allocate memory or a swap area.

---

**File name: System call error message**

Meaning

Access to the file failed.

Action

Check the /var file system.  
Allocate memory or a swap area.

---

**Watchdog-Log saved in file name**

Meaning

The watchdog was saved.

---

**savewdlog: logging incomplete**

Meaning

The watchdog log was saved, but it is incomplete.

Action

Check the /var file system.  
Allocate memory or a swap area.

---

**File name: fopen() failed**

## Meaning

Failed to open the file.

## Action

Check the /var file system.

---

**File name: fclose() failed**

## Meaning

Failed to close the file.

## Action

Check the /var file system.

---

**File name: fputs() failed**

## Meaning

Write to the file failed.

## Action

Check the /var file system.

## 6.19 scfhltlog(1M) command

---

**/dev/FJShwr/pwrctl: System call error message**

## Meaning

Access to the SCF driver failed.

## Action

Make sure that the SCF driver package is installed properly.

---

**scfhltlog: System call error message**

## Meaning

Failed to allocate memory.

## Action

Allocate memory or a swap area.

---

**scfhltlog: Removing the log in SCF failed**

## Meaning

Failed to delete the hard halt log.

## Action

Check the state of the SCF device.

---

**Hard Halt Log was saved in file name  
The log had occurred at time**

## Meaning

The hardware halt log that had occurred at 'time' was retrieved and stored in 'file name'.

---

**scfhltlog: file close failed**

Meaning

Failed to open the file.

Action

Check the state of the /var file system.

---

**scfhltlog: bounds file open failed**

Meaning

Failed to open /var/opt/FJSVhwr/wdlog/bounds file.

Action

Check the state of the /var file system.

---

**scfhltlog: bounds write failed**

Meaning

Failed to write /var/opt/FJSVhwr/wdlog/bounds file.

Action

Check the state of the /var file system.

---

**usage: scfhltlog [ -h ] [ -n ] [ -f device ] [ -d directory ]**

Meaning

Displayed when there is an error in the way a command option was used.

---

**scfhltlog: Halt log was not saved correctly on SCF.**

Meaning

The hardware halt log exists on the SCF device, but it was not saved correctly.

Action

Check the state of the SCF device.

## 6.20 scfnotice(1M) command

---

**Usage: scfnotice pfail**

Meaning

Displayed when there is an error in the way a command option was used.

---

**scfnotice: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**scfnotice: failed to open /dev/FJSVhwr/rasctl**  
**scfnotice: failed to open /dev/FJSVhwr/rasctl2**

Meaning

Failed to open the SCF driver

Action

Make sure that the SCF driver package is installed properly.

---

**scfnotice: ioctl0 failed**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

## 6.21 rciopcall(1M) command

---

**Usage: rciopcall: address { disp | on callNo | off callNo }**

Meaning

Displayed when there is an error in the way a command option was used.

---

**rciopcall: failed to open /dev/FJSVhwr/rcictl**  
**rciopcall: failed to open /dev/FJSVhwr/rcictl2**

Meaning

Failed to open the SCF driver

Action

Make sure that the SCF driver package is installed properly.

---

**rciopcall: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**rciopcall: ioctl0 failed**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**rciopcall: invalid rci address**

Meaning

Invalid RCI address.

Action

Check the RCI address.

---

**rciopecall: invalid callNo**

Meaning

Invalid callNo.

Action

Check the callNo.

---

**rciopecall: malloc() failed**

Meaning

malloc(3C) failed.

Action

Allocate memory or a swap area.

---

**rciopecall: RCI xxx does not exist**

Meaning

The RCI device that has specified RCI address XXX does not exist.

Action

Check the specified RCI device.

## 6.22 nodeled(1M) comandand

---

**Usage: nodeled [-led check] -status**

**nodeled [-led check] -mode on | blink | off**

Meaning

Displayed when there is an error in the way a command option was used.

---

**nodeled: not super user**

Meaning

The command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

**nodeled: cannot open /dev/FJSVhwr/rasctl: System call error message**

Meaning

Failed to open the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

---

**nodeled: ioctl() failed: System call error message**

Meaning

Could not access the SCF driver.

Action

Make sure that the SCF driver package is installed properly.

## 6.23 iompadm(1M) command

---

### **iompadm: cannot initialize library: Permission Denied**

Meaning

The initialization failed because the command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

### **iompadm: cannot initialize library: No Memory**

Meaning

The initialization failed due to insufficient memory.

Action

Allocate memory and execute the command again.

---

### **iompadm: Too many classes specified: Invalid Arguments**

Meaning

A class was specified more than once.

Action

Check the format of the command.

---

### **iompadm: invalid command: Invalid Arguments**

Meaning

There is an error in the way a subcommand name was used.

Action

Check the format of the command.

---

### **iompadm: cannot initialize library: Invalid Path**

Meaning

There is no valid Plug-In, or initialization is failed in all the Plug-In.

Action

Make sure that the driver is installed properly.

In the case driver installed properly, call a Fujitsu customer engineer.

---

### **iompadm: XXX: Invalid Arguments**

Meaning

There is an error in the way the specified option, subcommand, or parameter was used.

Action

Check the format of the command.

---



**iompadm: XXX: No Memory**

## Meaning

Insufficient memory occurred during the command execution.

## Action

Allocate memory and execute the command again.

---

**iompadm: XXX: Invalid Path Number**

## Meaning

The path was added/deleted to the same class by another process during the command execution.

## Action

Execute the command again after completing the job of the other process.

---

**iompadm: XXX: Invalid Path**

## Meaning

There is an error in the way the path name was specified in the parameter.

## Action

Specify a valid path name.

---

**iompadm: XXX: Too Many Path**

## Meaning

The paths specified in the parameter exceeded the maximum number.

## Action

Make sure that the driver is installed properly.

In the case driver installed properly, call a Fujitsu customer engineer.

---

**iompadm: XXX: Not Implemented**

## Meaning

The specified subcommand does not support on this product.

## Action

Check an available subcommand.

---

**iompadm: XXX: Class not Found**

## Meaning

Could not find a class that corresponds to specified communication path name.

## Action

Check the specified communication path name.

---

**iompadm: XXX: Not Supported**

## Meaning

Entered the state, which is not supported by this class.

## Action

Check an available subcommand.

---

### **iompadm: XXX: IO Error**

Meaning

The command terminated abnormally.

Action

Check the specified path.

If there is still a problem, call a Fujitsu customer engineer

---

### **iompadm: XXX: Internal Error**

Meaning

The specified path name does not exist, or the command is not accepted.

Action

Check the specified path name or subcommand.

---

### **iompadm: XXX: Invalid Instance**

Meaning

There is an error in the way the specified path name was used.

Action

Check the specified path name.

---

### **iompadm: XXX: Class not Found**

Meaning

Class name specified by XXX does not exist.

Action

Specify a correct class name.

---

## **6.24 DR Connection Script message**

---

### **Can't disconnect for last SCFC**

Meaning

Disconnect cannot be executed because of the last SCFC.

---

### **iompadm command abnormal end action=XX path=YY**

Meaning

iompadm command error.

XX represents the subcommand of the iompadm command.

YY represents the path name.

Action

Check the status of the displayed path.

If there is still a problem, call a Fujitsu customer engineer

## **Part 2 Serial Port Driver Features (PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500 and GP7000F Models 1000/2000)**

"Part2 Serial Port Driver Features (PRIMEPOWER 800/900/1000/1500/2000/2500/HPC2500 and GP7000F Models 1000/2000)" describes console connection via the onboard serial port of PRIMEPOWER 800/900/1000/1500/2000/2500/HPC2500 and GP7000F Models 1000/2000.



# Chapter 7 Connecting the Console

This chapter describes console connection via onboard serial port.

## 7.1 Feature Overview

This section provides an overview of the features and structures offered by the serial port.

### 7.1.1 Hardware

The console terminal is displayed in the RC2000 (Remote Console 2000) window of the System Management Console via the CCU (Console Communication Unit) which converts RS-232C to Ethernet.

Using RC2000 it is possible to display one or more console terminals, for each partition, in one System Management Console. These terminals are called the "OS console."

Solaris 8 OE or later provides for duplication of the console communication path which boosts console path reliability.

See the following documentation for more information about the structure of the console system.

- "PRIMEPOWER Installation Guide"
- "GP7000F model 1000 Installation Guide"
- "GP7000F model 2000 Installation Guide"

### 7.1.2 Software

The serial port driver in the FJSV<sub>se</sub> (for PRIMEPOWER 800/1000/2000 and GP7000F Models 1000/2000 with Solaris 7 OE or later), FJSV<sub>sf</sub> (for PRIMEPOWER 800/1000/2000 and GP7000F Models 1000/2000 with Solaris 2.6 OE), and FJSV<sub>sec</sub> (for PRIMEPOWER 900/1500/2500/HPC2500 with Solaris 8 OE or later) packages, included with Enhanced Support Facility (ESF), controls the onboard serial ports mounted on the system boards.

In addition to the functions of the se driver, included in Solaris OE, this serial port driver provides the following RAS (Reliability, Availability, and Serviceability) features:

- If a primary (main) serial port is broken while the system is booting, system uses a secondary (standby) serial port and disables the broken serial port.
- Furthermore, when OS is Solaris 8 OE or later, the function which dualities the communication path from an onboard serial port to a system console (console path) is supported. The contents of a function of the redundant console path are as follows.
- IOMP (I/O Multi Pathing) function is supported. It changes to a standby side automatically at the time of hardware failure detection of the serial port for consoles under OS operation, and operation of OS console is continued.
- DR (Dynamic Reconfiguration) function is supported. The system board with the broken serial port can be replaced while the system is running.
- By using with the system console software, the function to monitor the communicating state of the connected equipment from a RS-232C cable to the System Management Console, and to switch a console path automatically when unusual is supported.

The kind of monitoring function of the duplicated console path supported by the combination of ESF and SCS is as follows.

[Table 16.1 Kind of monitoring function]

ESF	SCS1.6	SCS 1.7 or later
1.7.1	(1)	(1)
1.8	(1)	(1)
2.0 or later	(1)	(2)

(1) monitors only main path

(2) monitors main and standby paths

Please refer to a "System Console Software User's Guide" about the details of system console software.

## 7.2 Configuration

At the first setup of the partition, serial ports on the system boards installed in the smallest slot number and the second of smallest slot number are automatically selected for the console from among the system boards which comprise the partition by OpenBootPROM(OBP). And OBP saves the information of selected system boards to the OBP's environment variables "tty-conspath" and "tty-sub-conspath."

Even if the composition of the system board in a partition was changed, these environment variables do not change. Therefore, when partition composition is changed, you must reconfirm these variables, and they need to be set as the system board which surely exists in the partition.

If the system boards defined as "tty-conspath" and "tty-sub-conspath" do not exist in the partition, the serial port of the system board on which the smallest number in a partition was attached will turn into a serial port for consoles. However, the value of "tty-conspath" and "tty-sub-conspath" are not changed.

Please refer to "7.4.2 Configuration" about a setup of the duplicated OS console of the host machine.

Please also refer to the following documents about a setup about console connection.

- "PRIMEPOWER USER'S MANUAL"
- "GP7000F model 1000 USER'S MANUAL"
- "GP7000F model 2000 USER'S MANUAL"
- "System Console Software User's Guide"

## 7.3 Notice for Using the Serial Ports

### 7.3.1 PRIMEPOWER 800/1000/2000, GP7000F Models 1000/2000

- Only CCUs can be connected to the onboard serial port. Modems, connected to the serial ports may not work correctly.
- The device name of the serial port will be "/dev/term/fa001," "/dev/term/fa002," etc. Because the number of this device name is allocated from the instance number of driver, this number does not necessarily correspond to the slot number of the system board.
- Do not change the setting of port monitor, etc. to the serial port for the console.
- The devices which is not used as the console path may use for only the FJVTS and SunVTS. The usable default devices for FJVTS and SunVTS are /dev/term/fa003, fa004, ... , and /dev/se\_hdlc3, se\_hdlc4, ...

### 7.3.2 PRIMEPOWER 900/1500/2500/HPC2500

- The device name of the serial port will be "/dev/term/fa001./dev/term/fa002," etc. Because the number of this device name is allocated from the instance number of driver, this number does not necessarily correspond to the slot number of the system board.
- Do not change the setting of port monitor, etc. to the serial port for the console. Because the physical device of the serial port used for the console is the physical device path which are linked from logical device under /dev/fjse directory, the logical devices under /dev/term and /dev/cua, and /dev/se\_hdlcX files, which link to above-mentioned physical device path, are devices used for the console.
- Except for the serial port for consoles, five serial ports can be used by the user. However, keep in mind that it is necessary to stop beforehand the application which is using the serial port of the system board or the PCI/Disk BOX in order to disconnect the system board by DR.
- The devices which is not used as the console path may use for the FJVTS and SunVTS.

## 7.4 The Duplicated OS Console (Solaris 8 OE or later)

This section explains about the IOMP (I/O MultiPathing) and DR (Dynamic Reconfiguration) features composing the duplicating function of the console path where the serial port driver provides since Solaris 8 OE or later.

### 7.4.1 Overview

The duplication of the console path is achieved by including the serial port in the IOMP (I/O MultiPathing) structure according to "7.4.2 Configuration."

The IOMP feature of OS console is supported by the FJSVse package in ESF version 1.7.1 or later and FJSVsec package. This package provides the following features:

- If a hardware error occurs on a serial port while the system is running, the fjmse driver switches the console device to the secondary port automatically.
- By using the IOMP features, the system board with the broken serial port can be changed while the system is running. This feature is called "DR (Dynamic Reconfiguration)."

## 7.4.2 Configuration

The construction of serial port driver for the duplicated console path is automatically carried out according to OBP environment variable "tty-conspath" and "tty-sub-conspath."

If the environment variables of OBP (OpenBootPROM), "tty-conspath" and "tty-sub-conspath", are not set, two serial ports on the system board installed in the smallest slot number are automatically selected for the console from among the system boards which comprise the partition.

You can select the serial port for the console by setting the environment variable of OBP.

Even if the composition of the system board in a partition was changed, these environment variables do not change. Therefore, when partition composition is changed, you must reconfirm these variables, and they need to be set as the system board which surely exists in the partition.

If the system boards defined as "tty-conspath" and "tty-sub-conspath" do not exist in the partition, the serial port of the system board on which the smallest number in a partition was attached will turn into a serial port for consoles. However, the value of "tty-conspath" and "tty-sub-conspath" are not changed.

Please also refer to the following documents about a setup about console connection.

- "PRIMEPOWER USER'S MANUAL"
- "GP7000F model 1000 USER'S MANUAL"
- "GP7000F model 2000 USER'S MANUAL"
- "System Console Software User's Guide"

## 7.4.3 Management command

When there are no abnormalities for a system, it is not necessary to perform operation of IOMP or DR of the console path.

The `iompadm(1M)` command is used for a certain reason to change the state of IOMP. This command is contained in `FJSViomp` package. Please refer to a "Dynamic Reconfiguration User's Guide" about the command about DR function. Moreover, refer to "Chapter 8 Command Reference" for the details of the `iompadm(1M)` command supported by IOMP of a console path.

## 7.4.4 Messages

See "Chapter 9 Messages" for information about console messages displayed by the `fjmsc` driver, `iompadm(1M)` command, and the DR connection script.





# Chapter 8 Command Reference

This chapter describes the commands offered by this software.

## 8.1 iompadm(1M)

### NAME

iompadm - multi path control command

### SYNOPSIS

/usr/opt/FJSViomp/bin/iompadm [-p] [-c fjmse] subcommand [parameter ...]

### AVAILABILITY

FJSVse(or FJSVsec), FJSViomp

### DESCRIPTION

iompadm(1M) on the duplicated console paths displays the status of communication paths composed of instances (the units of duplicated communication paths), and restores the communication path where a failure occurs.

You can display the status of communication paths or restore them using a combination of the specified subcommand and parameter.

A communication path is a path that is used for communications between a system serial port and System Management Console.

If in a partition, serial ports on the first and second system boards are used as the communication path by default.

The communication path names will be "/dev/fjse/0" and "/dev/fjse/1."

### OPTIONS

The following options are available:

-c fjmse

Specifies a class name. "fjmse" must be specified for a console class.

-p

Displays the logical and physical device names of a communication paths.

If this option is omitted, only the logical devices will be displayed.

subcommand

"Table 8.1 Subcommand List" lists the subcommands you can specify and gives their descriptions.

[Table 8.1 Subcommand List]

Subcommand	Description
Info	Displays the configuration information of the specified instance or all instances, and the status of the communication paths.
Status	Displays the status of the specified communication path.
Ident	Displays the class to which the specified communication path belongs.
Probe	Displays the instance and class to which the specified communication path belongs.
Recover	Restores the specified communication path.
Start	After the recover subcommand is running, this subcommand makes the specified communication path available for communicating.
Active	Changes the status of the specified communication path to use.

Version	Displays the version information for this product.
Help	Displays the usage of the iompadm command.

parameter

Specifies a parameter in combination with the subcommands. For more information, see "8.1.1 iompadm subcommand."

## EXIT STATUS

This command returns the following values:

0 Ended normally  
 > 0 Error

### 8.1.1 iompadm subcommand

#### 8.1.1.1 info subcommand

##### DESCRIPTION

The subcommand "info" displays the configuration information of the specified instance or all instances, and the status of the communication paths.

Instance refers to a unit of IOMP composition. Since there is only "/dev/FJSVhwr/fiomp/mse0" as the instance of the serial port for the console, omitting an instance name is equivalent to specifying it to this subcommand.

##### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm [-p] -c fjmse info [instance-name]
```

##### EXAMPLE

When -p option is not specified:

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse info /dev/FJSVhwr/fiomp/mse0
```

```
IOMP: /dev/FJSVhwr/fiomp/mse0
```

```
Element:
```

```
    /dev/fjse/0    online active block ""
    /dev/fjse/1    online standby block ""
```

```
Node:
```

```
    /dev/FJSVhwr/mse/a
```

```
Function:
```

```
    MPmode=false
    AutoPath=true
    Block=true
    NeedSync=false
```

Specify the -p option:

```
# /usr/opt/FJSViomp/bin/iompadm -p -c fjmse info /dev/FJSVhwr/fiomp/mse0
```

```
IOMP: /dev/FJSVhwr/fiomp/mse0
```

```
Element:
```

```
    /dev/fjse/0    online active block ""
-> /devices/pci@83,4000/ebus@1/FJSV,se@14, 400000:0,fjse
    /dev/fjse/1    online standby block ""
-> /devices/pci@87,4000/ebus@1/FJSV,se@14, 400000:1,fjse
```

```
Node:
```

```
    /dev/FJSVhwr/mse/a
```

```
Function:
```

```

MPmode=false
AutoPath=true
Block=true
NeedSync=false

```

"Table 8.2 Indication Synopsis" explains information output in the above examples.

**[Table 8.2 Indication Synopsis]**

Format	Description
IOMP: Instance Name	Identifies the IOMP Instance name.
Element: communication-path-name/status/details/access-permission ->physical-device-name (-p option)	Indicates information about the communication path that comprises the IOMP: communication path name, status, detailed status, and access permission. If the -p option is specified, a physical device name will be displayed.
Node: User-Access-Node	Identifies the configured IOMP device name available to users. "/dev/console" and user access node will be performed to access to the same device.
Function: MPmode={true   false} AutoPath={true   false} Block={true   false} NeedSync={true   false}	Indicates the IOMP features: MPmode: Simultaneous access to multiple paths AutoPath: Automatic path switching Block: Access control NeedSync: Synchronization of shared disk

The following describes the information listed in "Table 8.2 Indication Synopsis" in detail.

- status of communication path

online

The communication path is enabled to communicate.

In this case, "active" or "standby" is displayed as the detailed status.

offline

The communication path is disabled to communicate.

In this case, "stop" or "fail" is displayed as the detailed status.

unconfigured

The communication path is being detached by Dynamic Reconfiguration.

In this case, "disconnected" is displayed as the detailed status.

- detailed status

active

The communication path is enabled for communication or being used for communication.

standby

The communication path is ready for communication, but is in an idle state.

stop

The communication path is being stopped.

fail

The communication path is disabled for communication, caused by a failure.

disconnected

The communication path is being detached by Dynamic Reconfiguration.

- access permission

The following information indicates whether incoming direct access to the communication path is permitted:

block

prohibited

unblock

permitted

- MPmode

Indicates whether the communication path in the IOMP configuration is used at the same time. In the case of console, since only one communicating path is in an instance, "false" is displayed.

- AutoPath

Indicates whether the communication path is switched automatically. In the case of console, "true" is

- displayed because the fjmse driver switches a communication path automatically.
- Block  
Indicates whether user direct access to the communication path is limited. In the case of console, since only the fjmse driver controls communication paths to prevent users access to them directly, "true" is displayed.
- NeedSync  
Indicates whether the fjmse driver needs to synchronize data of communication path. In the case of console, "false" is displayed.

### 8.1.1.2 status subcommand

#### DESCRIPTION

The subcommand "status" displays the status of all the communication paths that belong to the specified instance.

This subcommand also displays the status of the specified communication path.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm [-p] -c fjmse status instance-name [communication-path-name]
```

#### EXAMPLE

When -p option is not specified:

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse status /dev/FJSVhwr/fiomp/mse0
/dev/fjse/0    online  active  block  ""
/dev/fjse/1    online  standby block  ""
```

Specify a communication path name:

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse status /dev/FJSVhwr/fiomp/mse0 /dev/fjse/0
/dev/fjse/0    online  active  block  ""
```

### 8.1.1.3 ident subcommand

#### DESCRIPTION

The subcommand "ident" displays the class to which the specified communication path belongs.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm ident communication-path-name
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm ident /dev/fjse/0
fjmse
```

### 8.1.1.4 probe subcommand

#### DESCRIPTION

The subcommand "probe" displays the instance and class to which the specified communication path belongs.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm probe communication-path-name
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm probe /dev/fjse/0
fjmse /dev/FJSVhwr/fiomp/mse0
```

### 8.1.1.5 recover subcommand

#### DESCRIPTION

The subcommand "recover" restores a communication path failed by error.

This subcommand can be executed if the message "offline" is not displayed using the info or status subcommands.

Successfully completing this subcommand changes the communication path into the "stop" state.

If you specify a communication path name, this subcommand will be performed for the specified communication path. Unless the original error cause is removed, communication may revert back to the "fail" state, depending upon the hardware failure.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c fjmse recover instance-name [communication-path-name]
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse recover /dev/FJSVhwr/fiomp/mse0 /dev/fjse/0
```

### 8.1.1.6 start subcommand

#### DESCRIPTION

The subcommand "start" makes the communication path in the "stop" state available.

Successfully completing this subcommand changes the communication path into the "standby" or "active" states.

If you specify a communication path name, this subcommand will be performed for the specified communication path.

If omitted, this subcommand will attempt to make all communication paths available.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c fjmse start instance-name [communication-path-name]
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse start /dev/FJSVhwr/fiomp/mse0 /dev/fjse/0
```

### 8.1.1.7 active subcommand

#### DESCRIPTION

The subcommand "active" changes the specified communication path from the "standby" state to the "active" state.

When any other communication path is already in the "active" state, this subcommand changes the communication path into the "standby" state.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c fjmse active instance-name communication-path-name
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse active /dev/FJSVhwr/fiomp/mse0 /dev/fjse/1
```

### 8.1.1.8 version subcommand

#### DESCRIPTION

The subcommand "version" displays the version information for this product.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c fjmse version
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse version
```

iompadm Version: 1.0.0 (1999/12/04)  
FJIOMP-API-Level: 2.0  
fjmse: 2.0.1  
fjmse-API-level: 1.0

### 8.1.1.9 help subcommand

#### DESCRIPTION

The subcommand "help" displays the usage of the iompadm command.

#### SYNOPSIS

```
/usr/opt/FJSViomp/bin/iompadm -c fjmse help
```

#### EXAMPLE

```
# /usr/opt/FJSViomp/bin/iompadm -c fjmse help
```

subcommand :

active	Activates the path.
help	Shows this help message.
ident	Returns the class name for IOMP device.
info	Returns information about an instance.
probe	Returns class and instance name for IOMP device
recover	Recovers the path after an error.
start	Restarts the use of a path.
status	Returns the path status.
version	Shows versions.

usage :

```
iompadm -c fjmse active instance-name device-name  
iompadm -c fjmse help  
iompadm ident device-name  
iompadm [-p] -c fjmse info [instance-name]  
iompadm probe device-name  
iompadm -c fjmse recover instance-name [device-name]  
iompadm -c fjmse start instance-name [device-name]  
iompadm [-p] -c fjmse status instance-name [device-name]  
iompadm -c fjmse version
```

# Chapter 9 Messages

This chapter gives the meaning of messages displayed about the Serial Port IOMP feature. It also describes what to do when you get error messages.

## 9.1 iompadm Command

---

### **iompadm: cannot initialize library: Permission Denied**

Meaning

The initialization failed because the command was executed using user privileges other than root.

Action

Execute the command using root user privileges.

---

### **iompadm: cannot initialize library: No Memory**

Meaning

The initialization failed due to insufficient memory.

Action

Allocate memory and execute the command again.

---

### **iompadm: Too many classes specified: Invalid Arguments**

Meaning

A class was specified more than once.

Action

Check the format of the command.

---

### **iompadm: invalid command: Invalid Arguments**

Meaning

There is an error in the way a subcommand name was used.

Action

Check the format of the command.

---

### **iompadm: cannot initialize library: Invalid Path**

Meaning

There is no valid Plug-In, or initialization is failed in all the Plug-In.

Action

Make sure that the FJSV<sub>se</sub>(or FJSV<sub>sec</sub>) and FJSViomp packages are installed properly.  
In the case driver installed properly, call a Fujitsu customer engineer.

---

### **iompadm: XXX: Invalid Arguments**

Meaning

There is an error in the way the specified option, subcommand, or parameter was used.

Action

Check the format of the command.

---

**iompadm: XXX: No Memory**

## Meaning

Insufficient memory occurred during the command execution.

## Action

Allocate memory and execute the command again.

---

**iompadm: XXX: Invalid Path Number**

## Meaning

The path was added/deleted to the same class by another process during the command execution.

## Action

Execute the command again after completing the job of another process.

---

**iompadm: XXX: Invalid Path**

## Meaning

There is an error in the way the communication path name was specified in the parameter.

## Action

Specify a valid communication path name.

---

**iompadm: XXX: Too Many Path**

## Meaning

The communication paths specified in the parameter exceeded the maximum number.

## Action

Make sure the number of the target devices specified in the environment setting is not exceeding the maximum number.

---

**iompadm: XXX: Not Implemented**

## Meaning

The specified subcommand does not support on this product.

## Action

Check an available subcommand.

---

**iompadm: XXX: Class not Found**

## Meaning

Could not find a class that corresponds to specified communication path name.

## Action

Check the specified communication path name.

---

**iompadm: XXX: Not Supported**

## Meaning

Entered the state, which is not supported by this class.



Action  
Check an available subcommand.

---

### **iompadm: XXX: IO Error**

Meaning  
The command terminated abnormally.

Action  
Check the network equipment (adapter, cables, and switches).  
Call a Fujitsu customer engineer when there are nothing wrong with the network equipment.

---

### **iompadm: XXX: Internal Error**

Meaning  
The specified interface name does not exist, or the command is not accepted.

Action  
Check the specified interface name or subcommand.

---

### **iompadm: XXX: Invalid Instance**

Meaning  
There is an error in the way the specified interface name was used.

Action  
Check the specified interface name.

---

### **iompadm: XXX: Class not Found**

Meaning  
Class name specified by XXX does not exist.

Action  
Specify a correct class name.

---

## **9.2 fjmse Driver**

---

### **WARNING: FJMSE:0002:Can't allocate system resource**

Meaning  
Failed to allocate kernel memory resource used by the fjmse driver.

Action  
Check kernel memory resource size there might not be enough kernel resources.

---

### **WARNING: FJMSE:5000:Inappropriate ioctl for this node**

Meaning  
The fjmse driver received an inappropriate ioctl message for the specified node.

Action  
Detected an internal error regarding ioctl message. Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5001:ioctl mismatch**

Meaning

Detected an internal error regarding ioctl message.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5002:Permission Denied**

Meaning

Sent an ioctl message using user privileges other than root. The iopadm command might be executed using user privileges other than root

Action

Execute the iopadm command using root user privileges.

---

**WARNING: FJMSE:5003:Invalid data size**

Meaning

The fjmse driver received an ioctl message with inappropriate data size.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5004:Inappropriate path change**

Meaning

Detected an internal error while the fjmse driver status changes.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5005:Invalid api\_level**

Meaning

The API level of the fjmse driver is not corresponding.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5006:Invalid instance number**

Meaning

Detected an internal error regarding instance number.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5007:Invalid number of pathname**

Meaning

Detected an internal error regarding the number of communication paths.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5008:Inappropriate physical path name**

Meaning

An inappropriate device name was specified as the physical device name of communication path.

Action

Make sure that the specified device name is correct.

Call a Fujitsu customer engineer when there is nothing wrong in the specified device name.

---

**WARNING: FJMSE:5010:Invalid number of instance**

Meaning

Detected an internal error regarding the number of instance.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5011:Inappropriate Instance Control Node Name**

Meaning

Detected an internal error regarding name of instance control node.

Action

Call a Fujitsu customer engineer.

---

**NOTICE: FJMSE:5012:Path Status is not 'Unconfigured:empty'**

Meaning

Failed to add a communication path because the communication path has been already added to the IOMP constitution.

Action

Use the iompadm command to check the state of communication path.

Call a Fujitsu customer engineer when there is no state of communication path.

---

**WARNING: FJMSE:5013:Lower path info table does not exist**

Meaning

Detected an internal error regarding control information of communication paths.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5014:All of path can not be status 'Offline:stop'**

Meaning

Failed to stop communication paths because all communication paths were going to be changed to "stop" status.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5016:Another process uses this device**

Meaning

Could not handle a communication path with the fjmse driver since other process was used.

Action

Execute the iompadm command again after another iompadm command was completed since the

iompadm might be executed in other process.  
Call a Fujitsu customer engineer when there is nothing wrong in the process.

---

**WARNING: FJMSE:5017:Upper path info table does not exist**

Meaning

Detected an internal error regarding control information of communication paths.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5018:Path status is not 'Offline:stop/fail'**

Meaning

Detected an internal error with the state other than "stop" or "fail".

Action

Use the iompadm command to check the state of communication path.  
Call a Fujitsu customer engineer when there is the state "stop" or "fail".

---

**WARNING: FJMSE:5020:Upper path info table already exist**

Meaning

Constituted again the communication path, which has been already constituted to IOMP constitution.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5021:Could not find Lower Path Info table for /dev/fjse/X**

Meaning

The communication path "/dev/fjse/X" which is going to be constituted to IOMP constitution does not exist.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5022:Inappropriate ioctl for this path status**

Meaning

The fjmse driver received an ioctl message, which does not correspond to the state of communication path.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5024:Inappropriate correspondence between upper path info and lower path info table**

Meaning

Detected an internal error regarding control information of communication paths.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5026:Inappropriate path number**

Meaning

The fjmse driver received an ioctl message, which is an inappropriate communication path number.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5027:Can not find corresponding path with Link-ID**

Meaning

There is no information to link the communication path.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5028:Can not find corresponding path with Path Number**

Meaning

Detected an internal error regarding control information of communication paths.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5029:Invalid data type**

Meaning

There is no data part of an ioctl message, which the fjmse driver received.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5031:Active Path does not exist**

Meaning

There is no communication path in the state "active".

Action

Make sure that the communication path in the state "active" exists.

Call a Fujitsu customer engineer when there is nothing wrong in the state "active".

---

**WARNING: FJMSE:5032:User Access Node does not exist**

Meaning

The fjmse driver received data from serial ports without opening the User Access Node "/dev/FJSVhwr/mse/a".

The port monitor "tymon" to "/dev/console" might not be started properly, or the fjmse driver received unnecessary data before the port monitor is started.

Action

Make sure that the port monitor has been started, or the communication path is in the state "active."

Call a Fujitsu customer engineer when this trouble is not solved.

---

**NOTICE: FJMSE:5033:Active status path will not exist**

Meaning

Changed the communication path to the state "stop" without any other communication paths in the state "standby."

Action

Login the system via LAN using root user privileges and execute the "iompadm -c fjmse start" command to re-active the console path.

---

**WARNING: FJMSE:5034:Inappropriate data type**

Meaning

The data form of ioctl messages that sets up the terminal information of "termio(7I)" and etc. is inappropriate.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5035:Inappropriate message for this node**

Meaning

The fjmse driver received a message of which is not supported to fjmse devices other than User Access Node "/dev/FJSVhwr/mse/a."

Action

Devices other than User Access Node are not opened to the public.  
Make sure that users access to devices other than User Access Node.  
Call a Fujitsu customer engineer when there is nothing wrong on the User Access Node.

---

**WARNING: FJMSE:5036:Trace-mode off, fjmse cannot allocate trace data buffer**

Meaning

Could not execute the internal logging feature since the fjmse driver cannot allocate memory resource for the internal logging feature.

Action

There is nothing wrong to use the system.  
Check kernel memory resource size there might not be enough kernel resources.

---

**WARNING: FJMSE:5037:Cannot change to requested path**

Meaning

Could not change the communication path in the state "active" to another path due to the abnormal state since another path is not in the state "standby."

Action

Make sure that a communication path in the state "standby" exists.  
Use the iompadm command to enter the state "standby" when communication paths in the state other than "active" are stopped.  
Call a Fujitsu customer engineer when this trouble is not solved.

---

**WARNING: FJMSE:5039:Message Classifing Error**

Meaning

Detected an internal error regarding data classifying.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5040:Invalid path-status**

Meaning

Detected an internal error regarding status control of communication paths.

Action

Call a Fujitsu customer engineer.

---

**WARNING: FJMSE:5041:Free High-Priority Message by unlinking Lower Path**

Meaning

Detected an internal error regarding delete of the communication path.

Action

Call a Fujitsu customer engineer.

---

**NOTICE: FJMSE:5100: Active path change to path -> /dev/fjse/X**

Meaning

The communication path of "active" status changed to "/dev/fjse/X."

Action

If a console message of the se driver such as "/pci@xx,xxxx/ebus@1/FJSV,se@14,400000:b (se#), offline, XXXX Register read error" was displayed before this console message displayed or the status "fail" is displayed after you execute the "iompadm -c fjmse info" command, a hardware error might be occurred. Call a Fujitsu customer engineer.

If there is no console messages of the se driver mentioned above, some error might be occurred between the RS-232C cable and the System Management Console. If you cannot recover by using the following steps, call a Fujitsu customer engineer.

- (1) Check the cable connection from the RS-232C cable to the System Management Console.
- (2) Execute the "iompadm -c fjmse info" command to display the status.
- (3) Change the another communication path which is in the "standby" status to the "active" status by using the "iompadm -c fjmse active" command.

## 9.3 DR Connection Script (FJSVse)

---

**The console path which can be activated is about to be lost.**

**This process is interrupted.**

Meaning

If the disconnection processing is continued, the console cannot be used. So, this process is aborted.

Action

Make sure a communication path in the state "standby" exists.

If there is a communication path in the state "fail" or "disconnected", recover the "fail" or "disconnected" path by connecting or if necessary exchanging the system board.

Call a Fujitsu customer engineer when this trouble is not solved.





# Part 3 Maintenance Facility

"Part3 Maintenance Facility" describes the System Data Output Tool.



# Chapter 10 System Data Output Tool

This chapter describes the System Data Output Tool.

## 10.1 Feature Overview

This tool collects command execution result data and files about hardware and software configurations, environment settings, logs, and operational status. It then outputs all to a tape unit, etc. (approx. 200 types, and 2,000 files)

This tool only executes commands for copying and referencing files and uses the /tmp file system as a work area (default).

The collected data is only compressed, and its contents can be analyzed using the existing commands for each type of information.

If a system fault occurs, use this tool to collect system information when the execution of a command becomes possible, for example, when reboot was completed after system dump was collected. Over time, data so acquired to analyze faults may be erased.

It is recommended that you execute this tool as a superuser.

Note:

When the system reboots after it has crashed, Crash Dump Assistant invokes this tool and automatically saves a system data file named "fjsnap.X" into the same directory as the crash dump. But if Savecore directory is defined as a directory other than the default directory (`/var/crash/`uname -n``) on Solaris 2.6 OE, Crash Dump Assistant does not save system data automatically.

## 10.2 Collection Time and Collection Capacity

Collection time takes about 5 to 20 minutes.

Collection capacity is between 5 to 40 Mbytes.

These values vary depending on the number of installed products (packages).

## 10.3 Target System

The target systems are shown below.

- Solaris 2.6 OE and later

## 10.4 Command Reference

### NAME

fjsnap - System data output tool

### FORMAT

```
/opt/FJSVsnap/bin/fjsnap [ -H ] [ -abhlns ] [ -T directory ] output
```

```
/opt/FJSVsnap/bin/fjsnap -C [ -H ] [ -abhlns ] [ -T directory ] [ -D directory ] output
```

### DESCRIPTION

fjsnap collects system data required to analyze faults.

### OPTIONS

Each option of the lower-case letter specifies a group of data to be collected. If omitted, group information related to the basic systems is collected (same as the `-b` option).

A group that can be specified is displayed in the Usage message (execute this command by specifying the `-H` option).

The following options are available:

-H

Displays the following Usage message.

```
Usage: fjsnap [ -H ] [ -abhlns ] [ -T directory ] output
: fjsnap -C [ -H ] [ -abhlns ] [ -T directory ]
  [ -D directory ] output
-H : Usage
-a : all
-b : basic software (default)
-h : high availability
-l : lp
-n : network
-s : storage array
-T directory : work directory
-C : Add crash dump information
-D directory : Savecore directory
output : ex. /dev/rmt/0
```

-a

Collects all defined data.

-b

Collects group information related to the basic system.

-h

Collects group information related to high reliability.

-l

Collects group information related to the printer

-n

Collects group information related to the network.

-s

Collects group information related to the storage array.

-T

Specifies a work directory (work area) in the parameter "directory." If omitted, a directory defined in environment variable TMPDIR is used as a work area. This command uses /tmp directory as a work area if the environment variable TMPDIR is not also defined. If the -T option and the environment variable TMPDIR are both specified, the -T option is used.

output

Specifies an output file name or special file name of the output medium.

-C

Adds an archive of crash dump file on the end of the archive of collected data in the output file. In this case, specify a special file name of non-rewinding tape device (ex. /dev/rmt/0n) as an output medium in the argument "output." If a special file name of rewinding tape device (ex. /dev/rmt/0) is specified in the argument "output," the archive of collected data gets overwritten by an archive of crash dump file.

-D

Specifies where to arrange crash dump files (savecore directory) in the parameter "directory." This option is valid only when the -C option is specified. If the -T option is not specified, this command collects crash dump files under the Savecore directory that is currently defined on the system. If the Savecore directory does not exist on the system, crash dump files under /var/crash/`uname -n` are collected.

Example:

When the collected data is output to a regular file.

The file name is "all" in this case.

```
# cd /export/home/fjsnap <RETURN>
# /opt/FJSVsnap/bin/fjsnap -a all <RETURN>
<<< fjsnap * START !! >>>
<<< Path-name check * START !! >>>
```

```
      :
      :
<<< Output * END !! >>>
<<< fjsnap * END !! >>>
# ls <RETURN>
all
```

The collected data is output to "/export/home/fjsnap/all" file.

Example:

When -C option is not specified:

```
/opt/FJSVsnap/bin/fjsnap -a -T /work /dev/rmt/0 <RETURN>
```

Example:

Add a crash dump file:

```
/opt/FJSVsnap/bin/fjsnap -C -a -T /work /dev/rmt/0 <RETURN>
```

### Work area size check

Uses a directory specified in the -T option or environment variable TMPDIR as a work directory (work area). If the -T option and the environment variable TMPDIR are not both specified, this command uses /tmp directory. This command also checks the space capacity of the work area. If there is insufficient space on the disk, a message is displayed and processing terminates.

### Collect data check

Checks whether the file to be collected exists. The check result is saved in a log file and an existing file is collected.

### Collect data size check

Checks the size of an existing file.

The total capacity of collect data and work area capacity are displayed as follows.

```
<<< needed tmp-space size >>>

9999 MB is left in xxxxxxxxxx

9999 MB is needed
```

When the total capacity of collect data is larger than the work area capacity, a WARNING message is displayed. After 30 seconds has lapsed, data is collected.

Pressing the RETURN key enables the user to immediately begin to collect data.

```
fjsnap:WARNING: Not enough space in xxxxxxxxxx

<<< job sleep 30s (exec:return, stop:INTR(^c)) >>>
```

When the size of collect data is too large to fit the available space, press INTR (Ctrl+C) to stop processing, specify a work area larger than the size of collect data, and execute this command.

Example:

Specify a work directory (work area) with the -T option:

```
# /opt/FJSVsnap/bin/fjsnap -b -T /work /dev/rmt/0 <RETURN>
```

Example:

Define a work directory (work area) in the environment variable TMPDIR:

```
# TMPDIR=/work; export TMPDIR <RETURN>
```

The total capacity of collect data is a "typical" value for such data collection. Even if the total capacity of collect data is larger than the work area space, all data may be able to be collected.

### Data collection

When collect data is configured as a file, it is copied to a work area.

```
find file-name -print | cpio -pdmUL work-directory/fjsnap.d <RETURN>
```

When collect data is configured as a directory, files under the directory are renamed to directory names using tar(1), and they are arranged into a work area.

```
tar cfh work-directory/fjsnap.d/collect-directory-name.tar  
collect-directory <RETURN>
```

This command then creates a list file of collected data, log file at execution, and file attribute information file of collected data.

fjsnap.result : List of collected data

fjsnap.eolog : Log at execution of this command (including error information)

fjsnap.lsinf : Attribute information of collect information file (result of ls(1))

fjsnap.result contents

ST	PROG	FILE	PHASE
-		/etc/system	50
~		~	~
Uarp_a		ARP_a	50
~		~	~
#EB -		/var/nis	50

ST :Collect result

Space :Collected normally.

#EB :A file to be collected was not found.

#EP :A collect procedure was not found.

#NG :The collect procedure has terminated abnormally.

PROG :Collect procedure name

(For more information, see "10.6 Collection Procedure List.")

FILE :File and directory to be collected

(For more information, see "10.5 Collected Data List.")

PHASE :Collection order (Standard :50)

The data collection command arranges data to be collected in a work area, uses compress(1) to compress each file, and use tar(1) to write the compressed data to the output file.

```
tar cfb output 20 work-directory/fjsnap.d <RETURN>
```

### Forbidden file (exclude)

All system data collected by this tool, such as command execution result and files, are defined in each group's collected data file under /opt/FJSVsnap/etc directory.

If you want to forbid this tool to collect a part of the system data, make a /etc/opt/FJSVsnap/exclude file.

With this method, you can forbid that this tool collects the system data listed in "10.5.2 Printer Related," for example, let us assume that you want to forbid this tool to collect the data related to the printer from the system data. The data related to the printer is generally collected in the directory /var/spool/lp/temp/. In this case, add a field named 'FILE'(seperated from the first field by spaces or tabs) to the printer related file named 'lp' under the /opt/FJSVsnap/etc directory. If you don't want to include printer data collected in the files like /var/spool/lp/temp/ or /var/spool/print include these files in the /etc/opt/FJSVsnap/exclude file.

Example:

/opt/FJSVsnap/etc/lp file:

#	PROG	FILE	PHASE
-		/var/spool/lp/temp	60
-		/var/spool/print	60

When you forbid that this tool collects /var/spool/lp/temp and /var/spool/print directories, write these data into /etc/opt/FJSVsnap/exclude file as shown below.

```
/var/spool/lp/temp  
/var/spool/print
```

### Collect data reference

The collected data is restored using `tar(1)`. This command creates a `fjsnap.d` directory in the current directory and arranges the collected data in the directory tree structure defined at collection under the `fjsnap.d` directory.

```
tar xf input <RETURN>
```

For `input`, specify a general file name or special file name according to a collect medium.

The collect file is compressed. Use `uncompress(1)` to uncompress the file before reference. If collected data is configured as a directory, it is saved as a archive file using `tar(1)`. In the case, expand the directory before reference.

When you restore crash dump files, specify a special file name of non-rewinding tape device to read an archive of collected data, and then restore an archive of crash dump files using `tar(1)`. In this case, using `tar(1)` enables the user to restore an archive of crash dump files after forwarding a tape device using `mt(1)`.

```
mt -f nrinput fsf 1 <RETURN>  
tar xf nrinput <RETURN>
```

For `nrinput`, specify a special file name of non-rewinding tape device.

### EXIT STATUS

When an error occurred during data collection, a diagnosis message is written to the `fjsnap/elog` file, the erroneous information is skipped, and the next information processing is continued.

This command returns the following values:

```
0    Ended normally  
1    Ended abnormally  
2    Invalid command syntax  
3    Re-executed during execution of this command
```

### FILES

`work-directory/fjsnap.d/fjsnap.result`

`work-directory/fjsnap.d/fjsnap.elog`

`work-directory/fjsnap.d/fjsnap.lsinf`

### NOTES

Do not re-execute this command during execution of this command.

The load on the disk unit containing the work area temporarily increases to about 80 to 90%. If this disk load causes problems in operation, reserve a work area on a file system on a disk unit not used by applications and systems.

CPU load rises very much, too, when there is no reserve strength in CPU power (For single CPU).

The system information is inaccessible by non-privileged users. It is recommended that you execute this tool as a superuser. For more information, see "10.7 Restricted System Information."

As for the file that the privileged user gathers, important information on the system is included. Please arrange from the general user to an inaccessible place, and do enough management.

## 10.5 Collected Data List

The collected data in this section:

- Basic System related
- Printer related
- High reliability related
- Storage array related
- Network related

## 10.5.1 Basic System Related

The Basic System related collected data is shown below

- Hardware configuration
- Software configuration
- Environment setting
- Log
- Operation status

### 10.5.1.1 Hardware Configuration

System configuration	prtcnf -v prtcnf -vp prtcnf -V format hrdconf -l prtcfg
----------------------	--

### 10.5.1.2 Software Configuration

System name	uname -a showrev -a
pkg installation status	pkginfo -l pkginfo -i pkginfo -p /var/sadm/install/contents /var/sadm/pkg*/pkginfo
Modification application status	showrev -p ls -l /var/sadm/patch
Kernel information	ls -l /platform/`arch -k`/kernel
Load device driver list	modinfo
System installation	/var/sadm/softinfo/INST_RELEASE ls -ld /var/sadm
instruction set architectures	isainfo -kv

### 10.5.1.3 Environment Setting

System tuning parameter	/etc/system
System definition	sysdef sysdef -d /etc/name_to_major /etc/path_to_inst /etc/release /etc/*.conf
Inittab	/etc/inittab
System procedure	/etc/rc*/*
Driver definition	/kernel/drv/*.conf /platform/`arch -k`/kernel/drv/*.conf
Device definition	/etc/device.tab /etc/dgroup.tab /etc/security/* /etc/devlink.tab
EEPROM	eeeprom
Device special file	ls -lin /dev/rdisk ls -linL /dev/*dsk/* find /dev -type d -print   xargs ls -lL ls -lR /dev



mount default value	/etc/vfstab
Free disk capacity	df -k df -a df -e df -g df -Z
Partition configuration	prtvtoc /dev/rdisk/c*s2
Environment setting parameter	/etc/default/*
User group definition	/etc/passwd /etc/group
System dump output destination definition	/etc/init.d/syssetup "minfree" file under Savecore directory or /var/crash/`uname -n`
Message related	/etc/syslog.conf
Port monitor definition	/etc/saf/*
Power management	/autoshutdown /etc/power.conf
at activation definition	/var/spool/cron/atjobs/*
cron information	/var/spool/cron/crontabs/*
AUDIT related	/etc/security/audit/*
Network	ifconfig -a /etc/inet/* /etc/netconfig /etc/resolv.conf /etc/rpc /etc/defaultdomain /etc/defaultrouter /etc/ethers /etc/hostname.* /etc/named.boot /net/nodename
UUCP	/etc/uucp/*
Remote execution	/etc/hosts.equiv
Mail related	/etc/mail/* ls -l /usr/lib/sendmail
SNMP definition	/etc/snmp/*
NIS+, NIS	/var/nis/* /etc/nsswitch.conf /var/yp/* ls -l /var/yp/binding
autofs definition	/etc/auto_master /etc/auto_home
Dial calling passwd	/etc/d_passwd /etc/dialups
FLEXlm	File can be specified using /etc/opt/FSUNlicense/FSU_LICENSE_FILE.
Option	/etc/opt/*
Web-Based Admin View environment definition	/etc/opt/FJSVwvbs/etc/webview.cnf
WWW Server for Admin View environment definition	/etc/opt/FJSVwvcnf/etc/WEBCNF.conf

Crash Dump Assistant	/etc/opt/FJSVdmp/fjdmpadm.conf
System Service Processor (SSP) UE10000	/etc/ssphostname /var/opt/SUNWssp/.ssp_private/* /var/opt/SUNWssp/adm/*
LMF environment setting information	lmadmin -r
Core file information	Information can be specified using coreadm.
Machine administration	/opt/FJSVcsl/usr/* /opt/FJSVcsl/lib/console.dat /opt/FJSVcsl/lib/machine.dat /opt/FJSVcsl/lib/my_console.dat /opt/FJSVcsl/lib/my_segment.dat /opt/FJSVcsl/lib/network.dat /opt/FJSVcsl/lib/pid.dat /etc/FJSVscslhostname /opt/FJSVcsl/bin/hcpversion -a /opt/FJSVcsl/bin/serialid_all /usr/sbin/FJSVmadm/hcpversion -v /usr/sbin/FJSVmadm/serialid -a
System Management Console	/opt/FJSVscsl/log/* /etc/FJSVscslif /etc/FJSVscslcntl /etc/FJSVscsltargets /etc/FJSVclowners /etc/FJSVclguiusers /opt/FJSVscsl/etc/ntp.conf
Partition Installer	/opt/FJSVclis/tmp/* /opt/FJSVclis/etc/* /var/tmp/FJSVclis/* /var/tmp/FJSVclis_setup_script.log /var/tmp/FJSVclis_log /etc/bootparams /etc/opt/FJSVclis/etc/*
Emulex Adapter	/kernel/dev/lpfc.conf /kernel/dev/qla.conf /opt/SMAW/sbin/prtcfg

#### 10.5.1.4 Log

System diagnosis information	/opt/FJSVhwr/sbin/fjprtdiag -v or /usr/platform/`uname -i`/sbin/prtdiag -v
Message log	/var/adm/messages* dmesg /var/log/syslog* /var/log/authlog /var/log/sysidconfig.log
User accounting processing information	/var/adm/utmp /var/adm/utmpx /var/adm/wtmp* /var/adm/wtmpx* uptime
Volume management log	/var/adm/vold.log*
Last login log	/var/adm/lastlog
Login failure log	/var/adm/loginlog
su execution log	/var/adm/sulog*

spell command log	/var/adm/spellhist*
cron log	/var/cron/log*
Port monitor	/var/saf/*
Installation	/var/sadm/install/logs/* /var/sadm/install_data /var/sadm/patch /var/sadm/ptf /var/sadm/smcptf /var/sadm/system/logs/*
root mail	/var/mail/root
Network	netstat -a netstat -an netstat -s netstat -m netstat -p netstat -r netstat -i netstat -k or kstat netstat -pn netstat -rn arp -a nfsstat nfsstat -m
NIS+	nissowcache -v
Connection server log	/var/adm/log/*
uucp	/var/uucp/*
Modem	/var/adm/aculog
Process account	/var/adm/pacct /var/adm/acct/*
FLEXlm	/var/opt/FSUNlicense/log /tmp/license_log
Option	/var/opt/*
Web-Based Admin View trace	/var/opt/FJSVwvbs/logs/*
WWW Server for Admin View trace	/var/opt/FJSVwvcnf/logs/*
Storplex/LMF Server	/var/opt/FJSVlmfs/*
Machine administration monitor log	/var/opt/FJSVmadm/log/*
Machine administration hardware error monitor database	/var/opt/FJSVmadm/etc/madmdb
Watchdog log	/var/opt/FJSVhwr/wdlog/*
SCF error log	/var/opt/FJSVhwr/scferrlog
Power log	/var/opt/FJSVhwr/scfpwrlog
Hardware holt log	/var/opt/FJSVhwr/hltlog/*
TCPTRACE	/var/opt/FJSVssf/tcptrace/*
Netcompo Communication Service 1.0	/var/opt/FSUNnet/cmsw/log/errlog/pathfile*
Crash Dump Assistant	/var/opt/FJSVdmp/log/*
Machine administration	/var/opt/FJSVcsl/log
System Management Console	/var/opt/FJSVscsl/log/*
Crash dump a nalysis file	<crash dump dir>/ana*

Enhanced Support Facility Information Management	/opt/FJSVbse/etc/esfinfo.data /opt/FJSVbse/etc/install.log /opt/FJSVbse/etc/remove.log /opt/FJSVbse/etc/ver_comp.log /opt/FJSVbse/etc/order.data
Web-Based Admin View	/etc/opt/FJSVwvbs/etc/bin/wvCntl glogs -all
modification information of Fujitsu middleware	/var/opt/FJMWupdate/showup.sh /var/opt/FJMWupdate/showup.sh -p
WebSysAdmin	/opt/SMAW/bin/getwsalog
Patch Management Tool	/opt/FJSVpmgw/sbin/fjpm_snap

### 10.5.1.5 Operation Status

Process list	ps -ecfjl or ps -ecfjLZ ptree
Inter-process communication status	ipcs -a or ipcs -aZ
Processor management information	psrinfo -v
SWAP	swap -l swap -s
SCF dump	/var/opt/FJSVmadm/scfdump
Crash dump	ls -l Savecore directory or ls -l /var/crash/`uname -n`
System activity	/var/adm/sa/*
File system mounting	/etc/mnttab
NFS	/etc/dfs/sharetab /etc/dfs/dfstab
NIS	ypwhich -m
RPC management information	rpcinfo rpcinfo -m
FLEXlm	lmstat -a
MTL library device status	Lmdisplay
RC2000	Information is output by rcgetinfo.
RC2000 (Java)	/etc/opt/FJSVrcon/bin/rcgetinfo2 -u
Dynamic Reconfiguration	Dynamic Reconfiguration information files
Parallelnavi	/opt/FJSVpnm/bin/pnavisnap
SRFS over BLASTBAND HPC	/opt/FJSVsrfs/bin/srfssnap
BLASTBAND HPC	/opt/FJSVbbdts/bin/bbsnap
System V IPC	/usr/bin/prctl 1
Zones	/usr/bin/zonename /etc/zones/*
Service Management Service	/usr/bin/svcs -apv /usr/bin/svcs -xv /lib/svc/* /var/svc/* /etc/svc/*
Fault Management	/usr/sbin/fmstat /usr/sbin/fmstat -a /usr/sbin/fmstat -a -m <module> /usr/sbin/fmstat -m <module> /usr/sbin/fmstat -s -m <module>

	/var/fm/*
--	-----------

### 10.5.2 Printer Related

The printer related collected data is shown below.

Log information of lp command activation	/var/lp/logs/*
Alert information	/var/mail/lp
Printing copied to spool area data and error/option information	/var/spool/lp/temp/* /var/spool/print/*
lp print service definition information	/etc/lp/*
Information collection of print request, printer definition, and system	lpstat -lt lpstat -Lt lpget list ls -alR /var/spool/lp ls -alR /var/fonts
SystemWalker/PrintMGR SE related	/var/opt/FJSVppn/log/* /etc/opt/FJSVppn/conf/*
BSNPS related	/var/opt/FJSVbsnps/bsnps/* /etc/opt/FJSVbsnps/bsnps/* /var/opt/FJSVlp/FJSVbsnps/* /var/opt/FJSVlp/ovl/* /var/opt/FJSVlp/page/* /var/opt/FJSVpralt/log/* /etc/opt/FJSVpralt/* /var/opt/FSUNmsgm/user /var/opt/FSUNmsgm/user.idx

### 10.5.3 High Reliability Related

The high reliability related collected data is shown below.

SynfinityCluster	Information file is output by clgetrschinfo.
SynfinityDisk	Information file is output by sdxsnap.sh.
SynfinityFile	Information file is output by sfxsnap.sh.
SynfinityFile/Global	Information is output by sfcsnap.sh.
Synfinity-VIA	Information is output by snet_error
SynfinityCluster/HA for Oracle	Information is output by dgetoralog. /etc/opt/FJSVclora/* /var/opt/FJSVclora/*.log
SynfinityLink	/etc/hanet.conf /etc/opt/FJSVhanet/* /var/opt/FJSVhanet/*
AP-Net Basic Software	Information is output by apnet_log.
BLASTBAND	/etc/opt/FJSVibhd/sbin/ibsnap
Systemwalker Resource Coordinator	/opt/FJSVrcxm/sbin/rcxmgrsnap or /opt/FJSVrcxat/sbin/rcxagtstap
PRIMECLUSTER Wizard for NetWorker	/etc/opt/FJSVclagent/bin/clgetagent

### 10.5.4 Storage Array Related

The storage array related collected data is shown below.

SPARCstorage Array	ls -l /dev/es Information is collected by luxadm and ssaadm.
Volume Manager	Information is collected by vxprint, vxdg, vxinfo, vxdisk, and

	vxstat.
Metadevice configuration information SPARCserver Manager, Solstice DiskSuite	Information is collected by metastat, metaset, and metadb.
Raid Manager	/usr/lib/osa/rmparams /usr/lib/osa/rmlog.log /kernel/drv/sd.conf /kernel/drv/rdnexus.conf /kernel/drv/rdriver.conf ls -l /dev/osa/dev/dsk/* ls -l /dev/osa/dev/rdisk/* Information is collected by drivutil, rdacutil, raidutil, nvutil, healthck, and lad.
FUJITSU PCI SCSI Adapter Driver 1.0/2.0	/kernel/drv/fjmisa.conf /kernel/drv/fjlvsa.conf
Hard Disk Driver Control Software	/kernel/drv/hddv_sd_backup /kernel/drv/hddv_mphd.conf_backup /kernel/drv/hddv_mplb.conf_backup
FUJITSU Fibre Channel Driver	/kernel/drv/fjpfca.conf /usr/sbin/FJSVpfca/fc_info -a /usr/sbin/FJSVpfca/fc_info -p /usr/sbin/FJSVpfca/fc_info -c
Multipath Disk Control load balance option (MPLB) 4-paths/8-paths 2.x	/var/opt/FJSVmplb/multi-path-config.log /var/opt/FJSVmplb/multi-path-config.log2 /kernel/drv/mplb.conf /usr/opt/FJSViomp/bin/iompadm -c mplb version /usr/opt/FJSViomp/bin/iompadm -c mplb -p info
MultiPath Disk Control	/kernel/drv/mphd.conf /var/opt/FJSVmphd/mphdmon/mphdmon.log /var/opt/FJSVmphd/mphdmon/mphdmon_bak.log /usr/opt/FJSViomp/bin/iompadm -c mphd -p info /etc/opt/FJSVmphd/bin/mphdsnap.sh

## 10.5.5 Network Related

The network related collected data is shown below.

Solstice Firewall related	fw ver
Netcompo HICS 1.0.2 related	/tmp/FSUNhics.info
Netcompo NMC Server	Information is collected by trenmcgw.
IDCM	dspidcm showpsys -vp idcmintf -d snap file is created after executing trcidcm. /var/opt/FSUNnet/lzcs/lzcs.trace file is created after executing trclzcs.
NETSTAGE	Information is collected by dspigw, infgenigw, and transigw.
ntp	ntpq -p /usr/sbin/ntptrace /var/ntp/*

## 10.6 Collection Procedure List

The table below lists the collection procedures.

Uarp_a	Collects the result of arp -a.
Ucp_LICENSE	Collects the file that can be specified using /etc/opt/FSUNlicense/FSU_LICENSE_FILE.
Udf_a	Collects the result of df -a.

Udf_e	Collects the result of df -e.
Udf_g	Collects the result of df -g.
Udf_k	Collects the result of df -k.
Udf_Z	Collects the result of df -Z.
Udmesg	Collects the result of dmesg.
Udrestat	Collects the information related to Dynamic Reconfiguration.
Ueeprom	Collects the result of eeprom.
Uetc_opt	Collects all files and directories under /etc/opt.
Ufind_dev	Collects the result of find /dev -type d -print   xargs ls -lL
Uformat	Collects the result of format.
Uifconfig_a	Collects the result of ifconfig -a.
Uipcs_a	Collects the result of ipcs -a.
Ulmstat_a	Collects the result of lmstat -a.
Uls_lL_dev_dsk	Collects the result of ls -linL /dev/*dsk/*.
Uls_l_binding	Collects the result of ls -l /var/yp/binding.
Uls_l_dev_rdisk	Collects the result of ls -l /dev/rdsk.
Uls_l_patch	Collects the result of ls -lin /var/sadm/patch.
Uls_l_platform	Collects the result of ls -l /platform/`arch -k`/kernel.
Uls_l_sendmail	Collects the result of ls -l /usr/lib/sendmail.
Uls_l_uname_n	Collects the result of ls -l Savecore directory or ls -l /var/crash/`uname -n`.
Uls_ld_sadm	Collects the result of ls -ld /var/sadm.
Umodinfo	Collects the result of modinfo.
Unetstat_a	Collects the result of netstat -a.
Unetstat_an	Collects the result of netstat -an.
Unetstat_i	Collects the result of netstat -i.
Unetstat_k	Collects the result of netstat -k.
Unetstat_m	Collects the result of netstat -m.
Unetstat_p	Collects the result of netstat -p.
Unetstat_pn	Collects the result of netstat -pn.
Unetstat_r	Collects the result of netstat -r.
Unetstat_rn	Collects the result of netstat -rn.
Unetstat_s	Collects the result of netstat -s.
Udfsstat	Collects the result of nfsstat.
Udfsstat_m	Collects the result of nfsstat -m.
Unisshowcache_v	Collects the result of nisshowcache -v.
Upkginfo_i	Collects the result of pkginfo -i.
Upkginfo_l	Collects the result of pkginfo -l.
Upkginfo_p	Collects the result of pkginfo -p.
Uplatform_drv_conf	Collects the files of /platform/`arch -k`/kernel/drv/* .conf.
Uprtconf_V	Collects the result of prtconf -V.

Uprtconf_v	Collects the result of prtconf -v.
Uprtconf_vp	Collects the result of prtconf -vp.
Uprtdiag_v	Collects the result of prtdiag -v.
Uprvtoc	Collects the result of prvtoc /dev/rdisk/c*s2.
Ups_ecfjl	Collects the result of ps -ecfjl.
Upsrinfo_v	Collects the result of psrinfo -v.
Uptree	Collects the result of ptree.
Urc2000	Collects the information related to RC2000.
Urpcinfo	Collects the result of rpcinfo.
Urpcinfo_m	Collects the result of rpcinfo -m.
Uscf	Collects the information related to SCF after executing scfdump, scferrlog, scfpwrlog, and scfhltlog.
Ushowrev_a	Collects the result of showrev -a.
Ushowrev_p	Collects the result of showrev -p.
Uswap_l	Collects the result of swap -l.
Uswap_s	Collects the result of swap -s.
Usysdef	Collects the result of sysdef.
Usysdef_d	Collects the result of sysdef -d.
Uuname_a	Collects the result of uname -a.
Uuptime	Collects the result of uptime.
Uvar_crash	Collects "minfree" file under Savecore directory or /var/crash/^uname -n`.
Uvar_opt	Collects all files and directories under /var/opt.
Uvar_sadm_pkg	Collects the file of /var/sadm/pkg/*/pkginfo.
Uypwhich_m	Collects the result of ypwhich -m.
Ulpget_list	Collects the result of lpget list.
Ulpstat_Lt	Collects the result of lpstat -Lt.
Ulpstat_lt	Collects the result of lpstat -lt.
Uls_alR_fonts	Collects the result of ls -alR/var/fonts.
Uls_alR_spl_lp	Collects the result of ls -alR/var/spool/lp.
Uls_l_es	Collects the result of ls -l/dev/es.
Uvx1 Uvx2	Collects the information related to Volume Manager.
Uluxadm Ussa	Collects the information related to SPARCstorage Array.
Umeta1 Umeta2	Collects the information related to Solstice DiskSuite.
Uraid	Collects the information related to Raid Manager.
Ufire	Collects the information related to Solstice FireWall-1.
Ucl	Collects the information related to SynfinityCluster.
Uclgetoralog	Collects the information related to SynfinityCluster/HA for Oracle.
Usdx	Collects the information related to SynfinityDisk.
Usfx	Collects the information related to SynfinityFile.



Usfc	Collects the information related to SynfinityFile/Global.
Uscnet_error	Collects the information related to Synfinity-VIA.
Uapnet_log	Collects the information related to AP-Net Basic Software.
Udspidcm Ushowpsys Uidcminf Utrcidcm Utrclzcs	Collects the information related to IDCM.
Udspigw Uinfgnigw Utransigw	Collects the information related to NETSTAGE.
Unetcompo_nmc	Collects the information related to Netcompo NMC Server.
Uhrdconf	Collects the result of hrdconf -l.
Uisainfo	Collects the result of isainfo -kv.
Ucoreadm	Collects the core file information that can be specified using coreadm.
Uprtcfg	Collects the information related to Emulex Adapter
Uana	Collects the files of crash dump analysis.
Upnavi	Collects the information related to Parallelnavi
Upfcd	Collects the information related to Fibre Channel Driver.
Uwvbs	Collects the information related to Web-BasedAdmin View.
Umplb	Collects the information related to Multipath Disk Control load balance option (MPLB) 4-paths/8-paths 2.x
Umphd	Collects the information related to MultiPath Disk Control.
Uls_IR_dev	Collects the result of ls -lR /dev.
Usrfs	Collects the information related to SRFs over BLASTBAND HPC.
Uibhd	Collects the information related to BLASTBAND .
Ubbdts	Collects the information related to BLASTBAND HPC.
Umwupdate	Collects the information related to all modification information of Fujitsu middleware.
Umwupdate_p	Collects the information related to modification information of Fujitsu middleware.
Uwebsysadmin	Collects the information related to WebSysAdmin.
Urcxmr	Collects the information related to PRIMECLUSTER Wizard for NetWorker
Uclagent	Collects the information related to Systemwalker Resource Coordinator
Untp	Collects the information related to ntp
Upmgw	Collects the information related to Patch Management Tool
Uhcpver	Collects the information related to Machine administration
Userialid	Collects the information related to serial id
Upretl	Collects the information related to System V IPC
Uzonename	Collects the information related to zonenumber
Usvcs	Collects the information related to Service Management Service
Ufmstat	Collects the information related to Fault Management

## 10.7 Restricted System Information

If you execute this tool as a non-privileged user, the system information from inaccessible directories and files cannot be collected. Also, you cannot collect some or all of the system information that the following procedures

collect.

- Ucoreadm
- Uetc\_opt
- Uvar\_opt
- Uformat
- Uprvtoc
- Uhrdconf
- Uls\_1\_uname\_n
- Uvar\_crash
- Urc2000
- Uscf
- Utransigw
- Uinfgnigw
- Unetcompo\_nmc
- Umeta1
- Umeta2
- Uluxadm
- Uraid
- Ussa
- Uvx1
- Uvx2
- Usdx
- Usfc
- Usfx
- Uls\_alR\_spl\_lp
- Ucl
- Udspidcm
- Ushowpsys
- Uidcminf
- Utreidem
- Utrclzcs
- Uexplo
- Udrcstat
- Uscnet\_error
- Uapnet\_log
- Uclgetoralog
- Uana
- Upnavi
- Upfcd
- Uwvbs
- Umplb
- Usrfs
- Uibhd
- Ubbdts
- Umwupdate
- Umwupdate\_p
- Uwebsysadmin
- Urcxmr
- Uclagent
- Untp
- Upmgw
- Uhcpver
- Userialid
- Uprctl
- Usvcs
- Ufmstat
- Ufmstat\_a
- Ufmstat\_a\_m
- Ufmstat\_m
- Ufmstat\_s\_m
- Udf\_Z

# Part 4 Common Base Facility

"Part4 Common Base Facility" describes the Common Base Facility.



# Chapter 11 License Manager

This chapter describes FLEXlm (License manager) that works on Solaris OE.

## 11.1 Introduction to FLEXlm

FLEXlm manages a software license on a network. A license management program called the license manager manages the license. The license manager runs on a machine known as the license server.

## 11.2 How to Introduce FLEXlm-Licensed Applications

This section shows how to introduce FLEXlm-licensed applications below.

### 11.2.1 Selecting the License Server Machine

The license server machine is the machine defined to the license manager as the machine on which the license server runs. Before initiating the use of FLEXlm-licensed applications, you must select one or three machines (three for redundancy) to act as the license server. The same machine as that used to run the application can be selected, but it is recommended that a separate machine(s) in the network is used.

When two or more FLEXlm-licensed applications are used, the same license server machine must be used for all applications in a local area network (LAN).

### 11.2.2 Deciding on License Server Operation

The end user can run FLEXlm-licensed applications in either of two ways:

- 1) Run the license manager and applications on the same machine, which constitutes a stand-alone configuration.
- 2) Run the license manager and applications on separate machines, applications are installed on individual machines while the license manager is set up separately. Each user runs their application separately.

### 11.2.3 Setting a License Password

A user must have a license password to be able to operate FLEXlm-licensed applications. For information on how to obtain a license password, see "License Password Application Form" attached to the option software.

### 11.2.4 Types of License

There are two license types. The type is set by each application and cannot be changed.

#### 1) Network License

A network license limits the number of licenses that can be used for an application on the same network. Applications that use network licenses are called Network locked products.

#### 2) Node Locked License

A node locked license limits application use to a specified machine (node). Applications that use node locked licenses are called Node locked products.

### 11.2.5 Installing a Package

To operate a FLEXlm-licensed application, you will need to install the application package and the FLEXlm package (FSUNlic). See the document supplied with the application or "Enhanced Support Facility Install Guide" for installation information. If three license server machines are used, install the same version of the FSUNlic package on each one.

Two or more FSUNlic packages have been installed, delete all FSUNlic packages according to the following procedures first, and install only the newest package. Even if the packages are deleted, neither the license file definition file (`/etc/opt/FSUNlicense/FSUN_LICENSE_FILE`), the license file (default is `/etc/opt/FSUNlicense/license.dat`) nor log files (`/var/opt/FSUNlicense/log*`) are deleted.

1. Confirm whether two or more FSUNlic packages are installed.

```
# pkginfo -x 'FSUNlic.*'  
FSUNlic Flexible License Manager  
(sparc) 6.2,REV=2002.03.1800  
FSUNlic.2 Flexible License Manager
```

```
(sparc) 6.1,REV=1998.11.0500
```

2. Delete all FSUNlic packages.

```
# pkgrm 'FSUNlic.*'
```

### 11.2.6 Setting Environment

Whenever the node name takeover of 1:1 standby is set with SynfinityCluster system, the state transition procedure is registered according to the following example, and you register the resource of state transition procedure to the cluster service.

```
# /etc/opt/FJSVcluster/bin/clsetproc -c SystemState2 ¥  
-m FSUNlicense /etc/opt/FSUNlicense/bin/FSUNlicense.duster  
# /etc/opt/FJSVcluster/bin/claddprocrsc -c SystemState2 -k FSUNlic ¥  
-m FSUNlicense -K BEFORE,AFTER -L BEFORE -S BEFORE
```

The license server cannot be started on the standby node. The license server is started when it becomes an operational node.

### 11.2.7 Registering the License Password

Follow the procedures described in "11.4 Setting of the License Password" to register the license password.

### 11.2.8 Starting FLEXlm

FLEXlm starts automatically whenever the system is booted, but only if the system has a license file and the machine has been registered as the license server. If FLEXlm does not start normally, all licensed applications, except Node locked products, will fail to run.

## 11.3 Troubleshooting

If it becomes impossible to issue a license in the system for some reason, reboot the license server by the following procedure.

1. Stop using all license-managed application programs.
2. Execute the following command on the license server machine. The server will stop.

```
# /etc/init.d/FSUNlicense stop
```

3. Restart the license manager by executing the following command on the license server.

```
# /etc/init.d/FSUNlicense start
```

## 11.4 Setting of the License Password

This section explains how to register a license password to use the software. A license password issued by "Fujitsu License Password Distribution Center" will be used.

The user must register a license password to the license file. A license file name is defined by /etc/opt/FSUNlicense/FSUN\_LICENSE\_FILE file. The default location is /etc/opt/FSUNlicense/license.dat. If you want to change, modify the FSUN\_LICENSE\_FILE file by using an editor.

### 11.4.1 Starting the setup\_license

Register a license password with the setup\_license command.

How to start

```
# /etc/opt/FSUNlicense/bin/setup_license [license-file-name]
```

- Specify a license file name as the argument. If omitted, the stored file in /etc/opt/FSUNlicense/FSUN\_LICENSE\_FILE file is used.
- The setup\_license uses curses(3X). Set the environment variable TERM before.
- Set the window size larger than 80x20 when the window is used.

### 11.4.2 Top Menu

When the setup\_license command is executed, the following top menu appears.

```
*** Setup License File ***
```

- 1 Add a New License Server.
- 2 Delete a License Server.
- 3 Add a New License Password.
- 4 Change a License Password.
- 5 Delete a License Password.
- 6 Display Contents of the License File.
- 7 Exit

Please choose a menu.

```
[Cursor Key:Move Cursor/^L:Screen Redraw/^D:Quit  
Return Key:End]
```

- To register added license servers and to create a new license file, select "1. Add a New License Server."
- To delete a registered license server, select "2. Delete a License Server."
- To register additional licenses, select "3. Add a New License Password."
- To update the contents registered for a license, select "4. Change a License Password."
- To delete a registered license, select "5. Delete a License Password."
- To display the contents registered for a license file, select "6. Display Contents of the License File."
- To complete the setup\_license command, select "7. Exit."

### 11.4.3 Registering the License Server

A user must register a license server to be able to create a new license file. The license server means the machine, which manages a license. If the license server is shut down, the software that uses the license manager will fail to run. The server selected as the license server should be a robust and well operating server. Either one or three machines can be set as the license server. Setting only one machine as the license server is called "Single server," setting three machines is called "Redundant server."

- Merits of redundant server operation  
Redundant server configurations enable continued management even when one of the license server machines shuts down. Note that management cannot continue if two machines in the redundant server configuration are shut down.
- Issues with redundant server operation  
When a machine has already been registered as the license server, the license server cannot be changed to another later. If this occurs due to unavoidable problems like a total machine failure, the user must apply for a new password.

When "1. Add a New License Server" is selected on "11.4.2 Top Menu," the following screen appears.

```
*** Add a New License Server ***
```

```
Node Name _____  
Hostid _____  
Port Number 27000____
```

```
Exit
```

Please enter Server Data.

( Node Name of a License Server. )

```
[Cursor Key:Move Cursor/BS:Back Space/^X>Delete a char/
```

```
^I:Insert a char/^L:Screen Redraw/
```

```
^D:Quit/^R:Clear Field/Return Key:End]
```

Input a machine node name (String returned by the `uname -n` command.), `hostid` (String returned by the `hostid` command.), and port number as the license server. After the operation, move the display cursor to "Exit," then press the return key. In addition, the default port number has already been set to "27000." Using a port number in the range "27000 - 27009" is recommended when specifying a port number.

Whenever the node name takeover of 1:1 standby is set with SynfinityCluster system, a different port number is set by each node.

The order of registering license servers must be matched with all license files when you use redundant servers.

### 11.4.4 Deleting the License Server

"Delete a License Server" is used when the necessary license server has already been deleted incorrectly or the specified server hardware is changed.

When "2. Delete a License Server:" is selected on "11.4.2 Top Menu," the following menu appears.

```
*** Delete a License Server ***

**A List of Servers**
1 80f12081 : node1
2 72f026a9 : node2
3 0bc3a03f : node3

Please choose a server.
[Cursor Key:Move Cursor/^L:Screen Redraw/^D:Quit/
p:Previous Page/n:Next Page/Return Key:End/
s:Top Page/e:Bottom Page/^U:UNDO]
```

Hostid and node name of the machine registered as the license server are displayed in "Server list." Move the displayed cursor to the target position, then press Return key. If the necessary machine has been deleted incorrectly, the screen can be reversed by using "UNDO" once only.

(If it has already been reversed, "UNDO" cannot be used.)

```
*** Delete a License Server ***

<Server Name:node1>

Confirm

Delete it ?
[^L:Screen Redraw/^D:Quit/Return Key:End]
```

When the machine is selected, the confirmation screen appears. Check the contents of the screen, then press the return key again.

## 11.4.5 Registering the License

There are two basic types of license.

- Network license
- Node locked license

The registration procedure depends on the license.

When "3. Add a New License Password" is selected on "11.4.2 Top Menu," the following screen appears.

```
*** Add a New License Server ***

1 NetWork Lock
2 Node Lock

Please choose license type.
[Cursor Key:Move Cursor/^L:Screen
Redraw/^D:QuitReturn Key:End]
```

The license type depends on the software, select the license type for the intended software.

### 11.4.5.1 Registering Network Locked Products

When "1. Network Lock" is selected on "11.4.5 Registering the License," the following screen appears.

```
*** Add a New License Password ***

Feature Name _____
Version _____
Number of Licenses _____
License Password _____
Expiration Date 1-jan-0____

Exit

Please enter License Data.
( Feature Name. )
[Cursor Key:Move Cursor/BS:BackSpace/^X:Delete a char/
^I:Insert a char/^L:Screen Redraw/^D:Quit/
```



```
^R:Clear Field/Return Key:End]
```

Input the feature name given by the software (FEATURE name) to "Feature name." If it has no name, input the system product No.

When you input the parameters, refer to the contents issued by Fujitsu License Password Distribution Center. At the end, move the display cursor to "Exit," then press the return key to complete the process.

### 11.4.5.2 Registering Node Locked Products

Node locked product means the software introduced with a node locked license. Node locked license limits software for use only on a specified machine (node).

When "2. Node Lock" is selected on "11.4.5 Registering the License," the following menu appears.

```
*** Add a New License Password ***  
  
Feature Name _____  
Version _____  
Number of Licenses 0 _____  
License Password _____  
Expiration Date 1:jan-0____  
HostID of Node Lock _____  
  
Exit  
  
Please enter License Data.  
( Feature Name. )  
[Cursor Key:Move Cursor/BS:BackSpace/^X:Delete a char/  
^I:Insert a char/^L:Screen Redraw/^D:Quit/  
^R:Clear Field/Return Key:End]
```

Input the feature name given the software (FEATURE name) to "Feature Name." If it has no name, input the system product No.

When you input the parameter, refer to the contents issued by Fujitsu License Password Distribution Center. "Number of License" has already been set to 0, do not change the contents. At the end, move the display cursor to "Exit," then press the return key to complete the process.

### 11.4.6 Changing the License

To update the contents registered in a license, use "Change an Entry."

When "4. Change a License Password" is selected on "11.4.2 Top Menu," the following screen appears.

```
*** Change an Entry ***  
  
**A List of Features** **License Data**  
1 fn1 Version :2.999  
2 fn2 Number of Licenses:0  
3 fn3 License Password : 3B5AA0F13E58142E5FFF  
Expiration Date :1:jan-0  
Node Lock Hostid :80f12081  
  
Please choose a feature name.  
[Cursor Key:Move Cursor/^L:Screen Redraw/^D:Quit/  
p:Previous Page/n:Next Page/Return Key:End/  
s:Top Page/e:Bottom Page/^U:UNDO]
```

The licenses registered in the license file are displayed in "A List of Features." The current contents of the feature name can be selected by cursor from that list.

Select the intended license from "A List of Features," the next screen appears by pressing the return key. The contents in the screen depend on the license type selected.

[For Network locked products]

```
*** Change an Entry ***  
  
<Feature Name:fn1>  
Version 1.999_____  
Number of Licenses 4_____
```

```

License Password 0BCAC051E7747F0220FB
Expiration Date 1jan-0____

Exit

Please enter License Data.
( Feature Name. )
[Cursor Key:Move Cursor/BS:BackSpace/^X:Delete a char/
^I:Insert a char/^L:Screen Redraw/^D:Quit/
^R:Clear Field/Return Key:End]

```

[For Node locked products]

```

*** Change an Entry ***

<Feature Name:fn-2>

Version 2.999_____
Number of Licenses 0_____
License Password 3B5AA0F13E58142E5FFF
Expiration Date 1jan-0____
Hostid of Node Lock 80f12081

Exit

Please enter License Data.
( Feature Name. )
[Cursor Key:Move Cursor/BS:BackSpace/^X:Delete a char/
^I:Insert a char/^L:Screen Redraw/^D:Quit/
^R:Clear Field/Return Key:End]

```

Here, change the contents. Move the display cursor to "Exit," then press the Return key. After this operation, the input will be completed.

### 11.4.7 Deleting the License

To delete a registered license from a license file, use "Delete an Entry."

When "5. Delete a License Password" is selected on "11.4.2 Top Menu," the following screen appears.

```

*** Delete an Entry ***

**A List of Features** **License Data**

1 fn1 Version :2.999
2 fn2 Number of Licenses:0
3 fn3 License Password : 3B5AA0F13E58142E5FFF
Expiration Date :1jan-0
Node Lock Hostid :80f12081

Please choose a feature name.
[Cursor Key:Move Cursor/^L:Screen Redraw/^D:Quit/
p:Previous Page/n:Next Page/Return Key:End/
s:Top Page/e:Bottom Page/^U:UNDO]

```

The license registered in the license file is displayed in "A List of Features." The current contents of the feature name selected by display cursor from "A List of Features" are displayed in "License Data."

Select the intended license from "A List of Features," the next screen will appear by pressing the return key. If the required license has been deleted by mistake, the screen can be reversed using "UNDO", but only once.

(If it has already been reversed, "UNDO" cannot be used again.)

```

*** Delete an Entry ***

<Feature Name:fn1 (1.999)>

Confirm

Delete it ?
[^L:Screen Redraw/^D:Quit/Return Key:End]

```

When the feature name is selected, the confirmation screen appears. Check the contents of the screen, then press the return key again.

## 11.4.8 Displaying the Contents of the License Server

To display the contents registered in a license file, use "Display Contents of the License File."

When "6. Display Contents of the License File" is selected on "11.4.2 Top Menu," the following screen appears.

```
*** Display Contents of the License File ***
1 SERVER node1 80f12081 27000
2 DAEMON J-FUJITSU/etc/J-FUJITSU
3 FEATURE fn1 J-FUJITSU 1.999 1-jan-0 0BCAC051E7747F0220FB ""
4 FEATURE fn2 J-FUJITSU 2.999 1-jan-0 03B5AA0F13E58142E5FFF "" 80f12081
5 FEATURE fn3 J-FUJITSU 3.999 1-jan-2000 0DB8AF0C19BDD8FA4B72E "" DEMO

[Cursor Key:Move/^A:Move Left/^E:Move Right/
p:Previous Page/n:Next Page/s:Top Page/e:Bottom Page/
^L:Screen Redraw/^D:Quit]
```

To exit from this screen, reverse the previous screen by using the ^D (ctrl+d).

## 11.4.9 Checking on Command Completion

The setup\_license command checks the license registered in a license file on completion. The contents shown below are checked.

- 1) Validity of the license password
- 2) Valid term

A license password will be checked, to ensure incorrect contents are not input by the user. If the license server has been registered / deleted once, the license password will not be recognized as the correct password.

Normally, it is not necessary to check a license password because an unlimited license password (1-jan-0) is issued. But sometimes, a limited license password is issued where software is only for temporary use.

On completion, the result of the check (as shown below) is displayed when a failure is detected. If no failure is detected, no message is displayed.

```
The license file is invalid.
fn4 0BDAC011E677790223FD 1-jan-0 Bad Password
fn5 1BDA10E173D1F8E68D6A 1-apr-99 Expired
```

The contents are displayed in the following format.

```
Feature name License password Valid term Contents
```

## 11.4.10 Starting the License Daemon

When you edit your license file with the setup\_license command, the license daemon must reflect the contents. The license daemon sits on the server that manages the license. Normally, the license server is rebooted at a system reboot. In other cases however, another procedure is needed to complete the reflection.

- If a license file is created, start the license daemon by the following procedure.

```
# /etc/init.d/FSUNlicense start
```

- If a license file is modified, reflect to the license daemon using the following procedure.

```
# /etc/opt/FSUNlicense/bin/lmreread ¥
-c `cat /etc/opt/FSUNlicense/FSUN_LICENSE_FILE`
```

## 11.4.11 Alternate Keys

Some of the keys used in setup\_license command execution may not work. In this case, used the alternate keys shown below.

Key	Alternate key
↑	Ctrl+p

↓	Ctrl+n
←	Ctrl+b
→	Ctrl+f

### 11.4.12 NSUNlicnz Package and FSUNlic Package

When you manage product that depends on the NSUNlicnz package on the same license server machine, follow the steps described below

1. Register the license password of the product depending on the FSUNlic package with the `setup_license` command.
2. Add the license password of the product depended on the NSUNlicnz package to the license file created in step 1 by editor. (The default location is `/etc/opt/FSUNlicense/license.dat`.)
3. Change the license file name defined in `/etc/opt/NSUNlicnz/NSUN_LICENSE_FILE` file to the license file name defined in `/etc/opt/FSUNlicense/FSUN_LICENSE_FILE` file.

## 11.5 Error Message List of the Client Library

This section describes the error codes and the error message list displayed by FLEXlm client library in the application.

---

### Cannot find license file

Error code

-1

Meaning

A license file cannot be opened.

Action

Create a license file. If a license file has already been created, place it in a specified place.

---

### Invalid license file syntax

Error code

-2

Meaning

The license file contains an invalid record.

Action

Check the contents in the license file. Determine whether:

- The server name is longer than 32 characters
  - A FEATURE line contains no hostid or 0 as the number of licenses.
  - A node locked product has not been set 0 as the number of licenses.
- 

### Cannot connect to a license server

Error code

-3

Meaning

The DAEMON line contains an invalid specification.

Action  
Correct the DAEMON line.

---

### **License number of users already reached**

Error code

-4

Meaning

The number of users has already reached the maximum permitted number of licensees.

Action

End any unnecessary application processes to keep the number of users below the maximum allowable number of licensees. Or, issue the `lmremove` command to override the license limit.

---

### **No such feature exists**

Error code

-5

Meaning

A specified feature is not found in the license file.

Action

Before starting an application, set up the necessary license.

---

### **No TCP "license" server exists**

Error code

-6

Meaning

The `SERVER` line contains no TCP/IP port number, and the TCP license server is not found in `/etc/services`.

Action

Check the license file and the `/etc/services` file.

---

### **Cannot find license file**

Error code

-7

Meaning

`lm_disconn()` comes after the process has been disconnected from the socket.

Action

Call a Fujitsu customer engineer.

---

### **Encryption code in license file is inconsistent**

Error code

-8

Meaning

The code of the license file does not match the other data in the file.

Action

Check the contents in the license file. Determine whether:

- Each parameter is not same the contents of the password.
- When the password of the demo license is registered input `DEMO` as the node lock hostid.
- When the node locked product password is registered, input the hostid of the node locked machine.
- When the network locked product password is registered, is not the node lock hostid input?

---

### **Invalid host**

Error code  
-9

Meaning

The hostid specified in a license file does not match the hostid of the machine on which the software is running.

Action

Run the application on a machine with the corresponding hostid, or create a valid license.

---

### **Feature has expired**

Error code  
-10

Meaning

The term of the license has expired.

Action

Acquire a new license.

---

### **Invalid date format in license file**

Error code  
-11

Meaning

In a license file, the start date of the license is inconsistent with the ending date.

Action

Check the contents of the license file. Determine whether:

- Check that the correct password is input.
- Reacquire a license.

---

### **Invalid returned data from license server**

Error code  
-12

Meaning

A port number is invalid, or the vendor daemon is not responding.

Action

Check the port number of `/etc/services`. If it is correct, reinstall the package.

---

### **No SERVER lines in license file**

Error code  
-13

Meaning

The license file does not contain a SERVER line definition.

Action

Include a SERVER line in the license file.

---

### **Cannot find SERVER hostname in network database**

Error code

-14

Meaning

/etc/hosts does not describe the license server defined in the SERVER line.

Action

Define the license server correctly.

---

### **Cannot connect to license server**

Error code

-15

Meaning

It is impossible to communicate with the license server.

Action

Check the following. If no solution is found, call a Fujitsu customer engineer.

- Are the license daemon and the vendor daemon running?
  - Is the license server connected to the network?
  - Is there any abnormality in the license file?
- 

### **Cannot read data from license server**

Error code

-16

Meaning

It is impossible to read data from the license server.

Action

Reboot the license server.

---

### **Cannot write data to license server**

Error code

-17

Meaning

It is impossible to write data after a process has been connected.

Action

Reboot the license server.

---

### **License server does not support this feature**

Error code

-18

Meaning

The specified feature is not supported.

Action

Check the following:

- It is likely that the valid term of the license has expired.
  - The daemon is executed to reflect all changes in the license daemon after a license is registered / changed.
-

**Error in select system call**

Error code

-19

Meaning

Fail to system call select().

Action

Call a Fujitsu customer engineer.

---

**License server busy(no majority)**

Error code

-20

Meaning

The license server is being activated.

Action

After the license server has booted, start the application program.

---

**License file does not support this version**

Error code

-21

Meaning

The version in a request is later than the specified version.

Action

Call a Fujitsu customer engineer.

---

**Feature checkin failure detected at license server**

Error code

-22

Meaning

The license cannot be freed.

Action

Check there are not be application problems.

---

**License server temporarily busy(new server connecting)**

Error code

-23

Meaning

The license daemon is being set up.

Action

After the license daemon has been set up, start the application program.

---

**Users are queued for this feature**

Error code

-24

Meaning

Users wishing to use this feature are currently queued.

Action

Start the application program again.

---



### **License server does not support this version of this feature**

Error code

-25

Meaning

The version of feature specified in a checkout request is later than the supported version of the license daemon.

Action

Install the latest license server version in the system.

---

### **Request from more license than this feature supports**

Error code

-26

Meaning

An attempt to make more checkout requests than is licensed was made.

Action

Restart the application program after other application program end.

---

### **Cannot find ethernet device**

Error code

-29

Meaning

The Ethernet device cannot be found.

Action

Call a Fujitsu customer engineer.

---

### **Cannot read license file**

Error code

-30

Meaning

It is impossible to read the license file.

Action

This failure occurred with errno=EPERM,EACCES. Check the license file.

---

### **No such attribute**

Error code

-32

Meaning

The unknown attribute code is specified by `lm_get_attr()` or `lm_set_attr()`.

Action

Call a Fujitsu customer engineer.

---

### **Bad encryption handshake with daemon**

Error code

-33

Meaning

The encryption handshake failed.

Action

Call a Fujitsu customer engineer.

---

### **Clock difference too large between client and server**

Error code

-34

Meaning

There is too large a system time difference between the license server and the client system in which the application is being executed.

Action

Correct the system clock of each system.

---

### **In the queue for this feature**

Error code

-35

Meaning

An application process is queued.

Action

Call a Fujitsu customer engineer.

---

### **Feature database corrupted in daemon**

Error code

-36

Meaning

There is an internal error in the daemon.

Action

Call a Fujitsu customer engineer.

---

### **Duplicate selection mismatch for this feature**

Error code

-37

Meaning

A mismatch application with the grouped mask is executed.

Action

Call a Fujitsu customer engineer.

---

### **Cannot allocate dynamic memory**

Error code

-40

Meaning

Sufficient memory can not be secured by malloc().

Action

Restart the application.

---

### **Feature was never checked out**

Error code

-41

Meaning

A requested feature has not been checked out.

Action

Check the license file.

---

### **Invalid parameter**

Error code

-42

Meaning

An incorrect parameter has been set by `lm_set_attr()`.

Action

Call a Fujitsu customer engineer.

---

### **Clock setting check not available in daemon**

Error code

-47

Meaning

A time difference between the client and server is not supported in the daemon.

Action

Call a Fujitsu customer engineer.

## **11.6 Command Reference**

### **lmstat(1M)**

#### **NAME**

lmstat - Displays the status of the license monitoring daemon and the feature activities

#### **SYNOPSIS**

```
/etc/opt/FSUNlicense/bin/lmstat -c lic-file [-a][-A][-f [feature]][-S [DAEMON]] [-s [server_name]] [-t timeout_value].
```

#### **DESCRIPTION**

lmstat returns the status information of the license daemon user.

#### **OPTIONS**

The following options are available:

- c  
Specifies the license file name that you are using in lic-file.
- a  
Displays all information.
- A  
Displays active licenses.
- f [feature]  
Displays users of feature.
- S [DAEMON]  
Displays all users of DAEMON's features.
- s [server\_name]  
Displays the status of the specified server.

-t timeout\_value  
Sets a timeout interval to timeout-value, in seconds.

## EXAMPLES

```
/etc/opt/FSUNlicense/bin/lmstat -c `cat /etc/opt/FSUNlicense/FSUN_LICENSE_FILE` -a
```

The in use license file names are stored in /etc/opt/FSUNlicense/FSUN\_LICENSE\_FILE file.  
(See "11.4 Setting of the License Password.")

## EXIT STATUS

This command returns the following values:

0  
    Ended normally  
Other than 0  
    Error

## lmremove(1M)

### NAME

lmremove - Deletes a specified license and returns to a license pool

### SYNOPSIS

```
/etc/opt/FSUNlicense/bin/lmremove [-c lic-file] feature user host display
```

### DESCRIPTION

lmremove deletes a specified user's license for a specified feature. If the machine in which a user runs an application crashes, the user license may be disabled.

lmremove causes that this user's license can be returned to the license pool.

### OPTIONS

The following options are available:

-c  
    Specifies the license file name that you are using in the parameter "lic-file."  
feature  
    Specifies feature name of the license that you are deleting.  
user  
    Specifies the user name whose license you are deleting.  
host  
    Specifies the host name of the license that you are deleting.  
display  
    Specifies the display name of the license that you are deleting.

## EXAMPLES

```
/etc/opt/FSUNlicense/bin/lmremove -c `cat /etc/opt/FSUNlicense/FSUN_LICENSE_FILE` ¥  
feature username hostname ttyname
```

The in use license file names are stored in /etc/opt/FSUNlicense/FSUN\_LICENSE\_FILE file.  
(See "11.4 Setting of the License Password.")

The feature name, user name, host name, and display name must be obtained by the output of lmstat-a.

## EXIT STATUS

This command returns the following values:

0  
    Ended normally  
Other than 0  
    Error

## lmreread(1M)

### NAME

lmreread - Signals to the license daemon for rereading the license file

### SYNOPSIS

```
/etc/opt/FSUNlicense/bin/lmreread -c lic-file
```

### DESCRIPTION

lmreread controls the license daemon that rereads the license file. If the contents in the license file are changed, it will be read by lmreread. In that case, it is not necessary to restart the license daemon. Note that lmreread cannot be used to change server node names or port numbers. The license daemon must be stopped and restarted.

### OPTIONS

The following options are available:

-c  
    Specifies the license file name that you are using in the parameter "lic-file."

### EXAMPLES

```
/etc/opt/FSUNlicense/bin/lmreread -c `cat /etc/opt/FSUNlicense/FSUN_LICENSE_FILE`
```

The in use license file names are stored in /etc/opt/FSUNlicense/FSUN\_LICENSE\_FILE file.  
(See "11.4 Setting of the License Password.")

### EXIT STATUS

This command returns the following values:

0  
    Ended normally  
Other than 0  
    Error

## 11.7 Error Message List of the setup\_license

The error message list of the setup\_license is described below. The messages are divided into the three situations, at setup\_license startup, while setup\_license startup executes, and when setup\_license completes.

### 11.7.1 At setup\_license startup

---

**Only a system administrator is allowed to execute this program.**

Action

    Only a super user can use the setup\_license(1M).

---

**A process is currently running. (You cannot execute more than one command at the same time.)**

Action

    Cannot start more than one setup\_license(1M) at the same time.  
    Check to see if the process remains active.

---

**Cannot write files or directories.**

Cause

The directory of the license file does not exist, or you do not have the write privileges.

---

**Command is canceled.**

Cause

The command is canceled by user request.

---

**The object can not be displayed, the frame may be too large for the screen.**

Action

Set the window size larger than 80x20.

---

**Failed to make a backup file of contents file.**

Action

Make sure there is enough space in the disk.

---

**Failed to read the license file.**

Cause

A system call error occurred on reading the file.

---

**System Error:fopen(filename=%s errno=%d)**

Cause

The fopen function ended in error.

Action

Check the license file and the directory.

---

**System Error:fgets(filename=%s errno=%d)**

Cause

The fgets function ended in error.

Action

Check the license file and the directory.

---

**System Error:fputs(filename=%s errno=%d)**

Cause

The fputs function ended in error.

Action

Check the license file and the directory.

---

**System Error:malloc(size=%d errno=%d)**

Cause

The malloc function ended in error.

Action

Restart the setup\_license after the load of the memory is lightened.

---

**System Error:realloc(size=%d errno=%d)**

Cause

The realloc function ended in error.

Action

Restart the setup\_license after the load of the memory is lightened.

---

**The number of license servers is incorrect.**

Cause

The license file has four or more SERVER lines.

Action

Register the license server according to the contents of the password issued.

---

**The daemon line is incorrect.**

Cause

The license file has duplicate DAEMON lines (J-FUJITSU).

Action

Check the license file.

---

**11.7.2 During the Setup\_license execution**

---

**Command is canceled.**

Cause

The command was canceled by the user request.

---

**System Error:fputs(filename=%s errno=%d)**

Cause

The fputs function ended in error.

Action

Check the license file and the directory.

---

**System Error:fopen(filename=%s errno=%d)**

Cause

The fopen function ended in error.

Action

Check the license file and the directory.

**System Error:malloc(size=%d errno=%d)**

Cause

The malloc function ended in error.

Action

Restart the setup\_license after the load of the memory is lightened.

---

**System Error:realloc(size=%d errno=%d)**

Cause

The realloc function ended in error.

Action

Restart the setup\_license after the load of the memory is lightened.

---

**The hostid of the license server is incorrect.**

Cause

The input hostid of the license server is incorrect. (word length or configuration characters)

Action

Input the hostid of the server as 8 hexadecimal digits.

---

**The number of license is incorrect.**

Cause

The input number of licenses is incorrect. (word length or configuration characters)

Action

Input the number of licenses as an integer value of a decimal numeral.

---

**The license password is incorrect.**

Cause

The license password or parameter is incorrect.

Action

Check the hostid, feature names, version, and license password of the license server.

---

**The hostid of node lock is incorrect.**

Cause

The input the node lock hostid is incorrect. (word length or configuration characters)

Action

Input the node lock hostid as 8 hexadecimal digits.

---

**The version is incorrect.**

Cause

The input version is incorrect. (word length or configuration characters)

Action

Input the version by the real format.

---



**The License Server is not registered.**

Action

A license server must be registered before a license manager is registered.

---

**Number of Servers is over MAX.**

Cause

The maximum numbers of license servers has already been registered.

Action

Unnecessary servers must be deleted before a license server is changed.

---

**A license file doesn't exist.**

Cause

It is impossible to select "Display contents of the License File if the license file does not exist.

---

**The feature name and the version have already been registered.**

Cause

Same feature name and version can be registered in a license file.

---

**The license password is not registered.**

Cause

It is impossible to change / delete the license file since the FEATURE line does not exist in the license file.

---

**The node name has already been registered.**

Cause

A node name of license server cannot be registered twice.

---

**The hostid has already been registered.**

Cause

Hostid of license server cannot be registered twice.

---

**The feature name and the version have already been registered.**

Cause

Same feature name and version cannot be registered in a license file.

---

**The port number is in correct.**

Action

Input the port number as decimal numeral digits.

---

**Internal error.**

## Action

There is an internal processing error. Call a Fujitsu customer engineer.

**11.7.3 At setup\_license completion**

---

**Bad Password**

## Cause

The license password is incorrect, or the password will be invalid if the license server is changed after the registration of the password.

## Action

Make sure that the license server has not been changed after the registration of the password.

---

**Bad Date**

## Action

The valid term of the license is incorrect. Check the license file.

---

**Expired**

## Cause

The valid term of the license has expired.

---

**The number of license servers is incorrect.**

## Cause

The license server to be used can be configured as one or three machines.

## Action

Register the license server according to the contents of the password issued.

# Chapter 12 Server Default Configuration

This chapter describes the Log Clear function.

## 12.1 Feature Overview

Prevents excessive use of system log files.

This feature is supported for Solaris 2.6 OS, Solaris 7 OS, Solaris 8 OS, and Solaris 9 OS.

For Solaris 10 OS later, please customize the `logadm.conf(4)` file to fit your system.

## 12.2 Target log file list

To prevent excessive use of the system disk space, the following log files are regularly cleared.

`/var/adm/messages`

`/var/log/syslog`

`/var/adm/wtmp` (Note)

`/var/adm/wtmpx` (Note)

`/var/adm/vold.log`

`/var/adm/sulog`

`/var/cron/log`

`/var/saf/_log`

`/var/saf/zsmon/log`

`/var/adm/spellhist`

`/var/lp/logs/requests`

`/var/lp/logs/lpsched`

Note) If the accounting is enabled, the log file is not cleared.

## 12.3 Details of log files

The Log Clear function is executed at system boot, and executed by `cron(1M)`.

The log files are cleared when it meets the following conditions.

File Name	Backup File Name	Log Clear Conditions
<code>/var/adm/messages</code>	<code>/var/adm/messages.{0,1,2,3}</code>	If the mtime of <code>/var/adm/messages.0</code> file is older than 7 days. (Solaris 9 OE) If the mtime of <code>/var/adm/messages.0</code> file is older than 7 days. Or, if file size is larger than 512KB. (Solaris 2.6,7,8 OE)
<code>/var/log/syslog</code>	<code>/var/log/syslog.{0,1,2,3,4,5,6,7}</code>	If the mtime of <code>/var/log/syslog.0</code> file is older than 7 days. (Solaris 9 OE) If <code>/var/adm/messages</code> file is cleared. (Solaris 2.6,7,8 OE)
<code>/var/adm/wtmpx</code>	<code>/var/adm/wtmpx.old</code>	If file size is larger than 5120KB. If the accounting is enabled, the log file is not cleared.
<code>/var/adm/wtmp</code>	<code>/var/adm/wtmp.old</code>	If <code>/var/adm/wtmpx</code> file is cleared. If the accounting is enabled, the log file is not cleared. (Solaris 2.6,7 OE)
<code>/var/adm/vold.log</code>	<code>/var/adm/vold.log.old</code>	If file size is larger than 256KB.
<code>/var/adm/sulog</code>	<code>/var/adm/sulog.{0,1,2,3}</code>	If file size is larger than 512KB.
<code>/var/cron/log</code>	<code>/var/cron/olog</code>	If file size is larger than 512KB. (Solaris 9 OE)

		If file size is larger than 462KB. (Solaris 2.6,7,8 OE)
/var/saf/_log	/var/saf/_log.{0,1}	If file size is larger than 256KB.
/var/saf/zsmon/log	/var/saf/zsmon/log.{0,1}	If file size is larger than 256KB.
/var/adm/spellhist	/var/adm/spellhist.old	If file size is larger than 256KB.
/var/lp/logs/requests	/var/lp/logs/requests.{1,2}	At 3:10 every day. (Solaris 9 OE) If the mtime of /var/lp/logs/requests.1 is older than 7 days. Or, if file size is larger than 256KB. (Solaris 2.6,7,8 OE)
/var/lp/logs/lpsched	/var/lp/logs/lpsched.{1,2}	If the mtime of /var/lp/logs/lpsched.1 is older than 7 days. (Solaris 9 OE) If the mtime of /var/lp/logs/lpsched.1 is older than 7 days. Or, if file size is larger than 256KB. (Solaris 2.6,7,8 OE)

## 12.4 Samples

The followings are sample settings which are equal to ESF feature by using the logadm(1M). (Note: The logadm(1M) is supported since Solaris 9 OS.)

Please refer to logadm(1M) and logadm.conf(4) for details.

```

/etc/logadm.conf

/var/adm/wtmpx -p never -N -s 5m -t /var/adm/wtmpx.old
/var/adm/vold.log -N -s 256k -t /var/adm/vold.log.old
/var/adm/sulog -C 4 -N -s 512k
/var/saf/_log -C 2 -N -s 256k
/var/saf/zsmon/log -C 2 -N -s 256k
/var/adm/spellhist -N -s 256k -t /var/adm/spellhist.old

/var/spool/cron/crontabs/root

30 3 * * 0 if [ ! -f /var/adm/pacct ]; then /usr/sbin/logadm -p now /var/adm/wtmpx: fi

```

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