



C120-E318-02ENZ2(A)

Enhanced Support Facility User's Guide

**for Redundant Console Path Features
(PRIMEPOWER)**



FUJITSU



Preface

Purpose

This manual provides an overview of functions relating to console connection using a basic serial port of the PRIMEPOWER (functions peculiar to PRIMEPOWER 800/900/1000/1500/2500/HPC2500 and GP7000F models 1000/2000).

This manual also includes explanations of server models, operating system versions, and functions supported by ESF 3.0 or an earlier version.

Intended Readers

This manual is intended for the following readers:

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

Organization

This manual is organized as follows:

Chapter1: Connecting the Console

This chapter explains the console connection of the redundant console path features.

Chapter2: Command Reference

Describes the commands offered by this software.

Chapter3: Messages

Gives the meaning of messages displayed about the Serial Port IOMP feature. It also describes what to do when you get error messages.

Notation

The following names, abbreviated expressions, and symbols are used in this manual:

Manual names

- This manual itself is referred to as "this manual."
- Any manual for this product is sometimes referred to by omitting "Enhanced Support Facility" at beginning of the formal name and supported server models at the end of the formal name. "User's Guide for Redundant Console Path Features" is one of such examples.
- Example: Enhanced Support Facility User's Guide for Redundant Console Path Features (PRIMEPOWER)
-> User's Guide for Redundant Console Path Features




Abbreviation

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

Formal name	Abbreviation
Microsoft (R) Windows (R) XP Professional, Microsoft (R) Windows (R) XP Home Edition, Microsoft(R) Windows (R) 2000 Server, Microsoft (R) Windows (R) 2000 Advanced Server, Microsoft (R) Windows (R) 2000 Professional, Windows Server (TM) 2003 Standard Edition, or Windows Server (TM) 2003 Enterprise Edition	Windows (R)
Solaris™ 2.6 Operating System	Solaris 2.6 OS
Solaris™ 7 Operating System	Solaris 7 OS
Solaris™ 8 Operating System	Solaris 8 OS
Solaris™ Operating System	Solaris OS

Marks

In this manual, the marks below are used for cautionary messages and reference information.

Mark	Description
 Note	Contains a warning or cautionary message. Make sure you read it carefully.
 Point	Contains reference information that you will find useful.
 See	Provides reference information. Refer to the information when necessary.

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Revision History

Edition	Date	Details
1	May 26, 2006	First Edition
2	Aug 31, 2007	Description of the redundant console port functionality was added to the overview.

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Chapter 1 Connecting the Console

This chapter describes console connection via onboard serial port.

1.1 Feature Overview

This section provides an overview of the features and structures offered by the serial port.

1.1.1 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 OS 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*

1.1.2 Software

The serial port driver in the FJSVse (for PRIMEPOWER 800/1000/2000 and GP7000F Models 1000/2000 with Solaris 7 OS or later), FJSVsef (for PRIMEPOWER 800/1000/2000 and GP7000F Models 1000/2000 with Solaris 2.6 OS), and FJSVsec (for PRIMEPOWER 900/1500/2500/HPC2500 with Solaris 8 OS 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 OS, this serial port driver provides the following RAS (Reliability, Availability, and Serviceability) features:

- If a primary (main) serial port fails while the system is booting, system automatically uses the secondary (standby) serial port and disables the broken serial port.
- Furthermore, when Solaris 8 OS or later is used, the ability to provide a redundant communication path from the onboard serial ports to the system console (console path) is supported. Fujitsu recommends a redundant configuration for the entire console *path* to protect against Console Connection Unit (CCU) or hub/switch failure. However, redundant console *port* functionality is supported (see note below).

Redundant console *path* functionality provides the following features

- a) IOMP (I/O Multi Pathing) function is supported. The IOMP driver switches to the standby console path automatically at the time of hardware failure detection of the serial port for consoles while the OS is running. This allows operation of the OS console to proceed without interruption.
- b) DR (Dynamic Reconfiguration) function is supported. In the event of a system board or serial port failure, the system board with the primary console port connection can be replaced while the system is running.
- c) System Console Software (SCS) provides the function to monitor the

communicating state of the console path; from the system board serial port to the RS-232C cable to the CCU to the System Management Console. In the event of a communication failure in the console path, the path is automatically switched to the redundant path.

[NOTE] As mentioned above, Fujitsu recommends that the entire console *path* be constructed in a redundant manner; including redundant CCUs and network hubs/switches. If this is not possible, redundant console *ports* can be configured. Redundant console *ports* can be configured for partitions containing two or more XPAR or PPAR system boards (providing two physical serial ports). A single CCU can be setup and connected to the two serial ports. If the system board containing the primary console port is removed from the partition by DR or hardware failure, the console automatically switches to the secondary console port (as defined by the `tty-sub-conspath OBP` variable). Please note that configuring redundant console *ports* does not protect against SCF, SCF-LAN, or CCU failure.

The kind of monitoring function of the duplicated console path supported by the combination of ESF and SCS is as follows.

Table 1.1 Kind of monitoring function

ESF	SCS	
	1.6	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 the *System Console Software User's Guide* about the details of system console software.

1.2 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 "1.4.2 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*

1.3 Notice for Using the Serial Ports

1.3.1 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, ...`

1.3.2 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 is 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.
- The devices which is not used as the console path may use for the FJVTS and SunVTS.

1.4 The Duplicated OS Console (Solaris 8 OS 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 OS or later.

1.4.1 Overview

The duplication of the console path is achieved by including the serial port in the IOMP (I/O MultiPathing) structure according to "1.4.2 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)."

1.4.2 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

1.4.3 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 "Enhanced Support Facility User's Guide For Dynamic Reconfiguration" about the command about DR function. Moreover, refer to "Chapter 3 Command Reference" for the details of the `iompadm(1M)` command supported by IOMP of a console path.

Chapter 2 Command Reference

This chapter describes the commands offered by this software.

2.1 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 2.1, "Subcommand list" lists the subcommands you can specify and gives their descriptions.

Table 2.1 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 "2.1.1 iompadm subcommand."

EXIT STATUS

This command returns the following values:

0 Ended normally
> 0 Error

2.1.1 iompadm subcommand**2.1.1.1 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 2.2 "Indication Synopsis" explains information output in the above examples.

Table 2.2 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 <ul style="list-style-type: none"> • 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 2.2 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.

2.1.1.2 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 ""
```

2.1.1.3 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
```

2.1.1.4 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
```

2.1.1.5 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
```

2.1.1.6 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
```

2.1.1.7 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
```

2.1.1.8 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
fjmse-API-level: 1.0
```

2.1.1.9 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 3 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.

3.1 iompadm Command

iompadm: cannot initilize 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 initilize 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 initilize library: Invalid Path

Meaning

There is no valid Plug-In, or initialization is failed in all the Plug-In.

Action

Make sure that the FJSVse(or FJSVsec) 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.

3.2 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 iompadm command might be executed using user privileges other than root.

Action

Execute the iompadm 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 "ttymon" 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-activate 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 Classifying 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.

3.3 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.

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