# SPARC Enterprise
# M3000/M4000/M5000/M8000/M9000 Servers

## RCI User's Guide

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# Preface

This manual describes the Remote Cabinet Interface (RCI) function on SPARC Enterprise M3000/M4000/M5000/M8000/M9000 servers. This manual is intended for users, specifically system management/maintenance administrators. However, when carrying out actual operations, authorized service personnels do it.

Some references to server names and document names are abbreviated for readability. For example, if you see a reference to the M9000 server, note that the full product name is the SPARC Enterprise M9000 server. And if you see a reference to the *XSCF Reference Manual*, note that the full document name is the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF Reference Manual.*

Before reading this document, you should read the *SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide* and other manuals referenced in this manual.

At publication of this document, servers described herein were shipping with XCP 1110 firmware installed. That might no longer be the latest available version, or the version now installed. Always see the Product Notes that apply to the firmware on your server, and those that apply to the latest firmware release.

This chapter includes the following sections:

- Support Conditions
- Audience
- Related Documentation
- Text Conventions
- Syntax of the Command-Line Interface (CLI)
- Documentation Feedback

## Support Conditions

The RCI function is supported on any of the following servers.

- The server which you purchased in Japan from Fujitsu
- The server which is bearing the Fujitsu logo on the front surface, regardless of area of purchase (Note)

Note: This refers to the server which has the black-colored chassis and is exclusively bearing the Fujitsu logo on the front surface.

## Audience

This guide is written for experienced system administrators with working knowledge of computer networks and advanced knowledge of the Oracle Solaris Operating System (Oracle Solaris OS).

## Related Documentation

All documents for your sever are available online at the following locations:

| Documentation | Link |
|---|---|
| Sun Oracle software-related manuals (Oracle Solaris OS, and so on) | http://www.oracle.com/documentation |
| Fujitsu documents | http://www.fujitsu.com/sparcenterprise/manual/ |

The following table lists titles of related documents.

| Related SPARC Enterprise M3000/M4000/M5000/M8000/M90000 Servers Documents |
|---|
| SPARC Enterprise M3000 Server Site Planning Guide |
| SPARC Enterprise M4000/M5000 Servers Site Planning Guide |
| SPARC Enterprise M8000/M9000 Servers Site Planning Guide |
| SPARC Enterprise Equipment Rack Mounting Guide |
| SPARC Enterprise M3000 Server Getting Started Guide(*1) |
| SPARC Enterprise M4000/M5000 Servers Getting Started Guide(*1) |
| SPARC Enterprise M8000/M9000 Servers Getting Started Guide(*1) |
| SPARC Enterprise M3000 Server Overview Guide |
| SPARC Enterprise M4000/M5000 Servers Overview Guide |
| SPARC Enterprise M8000/M9000 Servers Overview Guide |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers Important Legal and Safety Information(*1) |
| SPARC Enterprise M3000 Server Safety and Compliance Guide |
| SPARC Enterprise M4000/M5000 Servers Safety and Compliance Guide |
| SPARC Enterprise M8000/M9000 Servers Safety and Compliance Guide |
| External I/O Expansion Unit Safety and Compliance Guide |
| SPARC Enterprise M4000 Server Unpacking Guide(*1) |
| SPARC Enterprise M5000 Server Unpacking Guide(*1) |
| SPARC Enterprise M8000/M9000 Servers Unpacking Guide(*1) |
| SPARC Enterprise M3000 Server Installation Guide |
| SPARC Enterprise M4000/M5000 Servers Installation Guide |
| SPARC Enterprise M8000/M9000 Servers Installation Guide |
| SPARC Enterprise M3000 Server Service Manual |
| SPARC Enterprise M4000/M5000 Servers Service Manual |
| SPARC Enterprise M8000/M9000 Servers Service Manual |
| External I/O Expansion Unit Installation and Service Manual |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers RCI Build Procedure |

| Related SPARC Enterprise M3000/M4000/M5000/M8000/M90000 Servers Documents |
|---|
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers Administration Guide |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF User's Guide |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers XSCF Reference Manual |
| SPARC Enterprise M4000/M5000/M8000/M9000 Servers Dynamic Reconfiguration (DR) User's Guide |
| SPARC Enterprise M4000/M5000/M8000/M9000 Servers Capacity on Demand (COD) User's Guide |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers RCI User's Guide |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers Product Notes(*2) |
| SPARC Enterprise M3000 Server Product Notes |
| SPARC Enterprise M4000/M5000 Servers Product Notes |
| SPARC Enterprise M8000/M9000 Servers Product Notes |
| External I/O Expansion Unit Product Notes |
| SPARC Enterprise M3000/M4000/M5000/M8000/M9000 Servers Glossary |
| SPARC Enterprise/PRIMEQUEST Common Installation Planning Manual |

*1:    This is a printed document.

*2:    Beginning with the XCP 1100 release.

## Text Conventions

This manual uses the following fonts and symbols to express specific types of information.

| Fonts/symbols | Meaning | Examples |
|---|---|---|
| **AaBbCc123** | What you type, when contrasted with on-screen computer output. This font represents the example of command input in the frame. | XSCF> **adduser jsmith** |
| AaBbCc123 | The names of commands, files, and directories; on-screen computer output. This font represents the example of command output in the frame. | XSCF> **showuser -p**<br>User Name:        jsmith<br>Privileges:       useradm<br>                  auditadm |
| *Italic* | Indicates the name of a reference manual, a variable, or user-replaceable text. | See the *SPARC Enterprise M3000/ M4000/M5000/M8000/M9000 Servers XSCF User's Guide*. |
| " " | Indicates names of chapters, sections, items, buttons, or menus. | See Chapter 2, "Setup of the RCI for Operation" |

## Syntax of the Command-Line Interface (CLI)

The command syntax is as follows:

- A variable that requires input of a value must be put in Italics.
- An optional element must be enclosed in [ ].
- A group of options for an optional keyword must be enclosed in [ ] and delimited by |.

## Documentation Feedback

If you have any comments or requests regarding this document, go to the following website:

http://www.fujitsu.com/global/contact/computing/sparce_index.html

# CHAPTER 1  RCI Overview

This chapter gives an overview of the Remote Cabinet Interface (RCI).

## 1.1 RCI Features

The RCI is a device control interface used for connections of I/O units to an RCI host.

In this manual, a host and an I/O unit that support the RCI are referred to as an RCI host and an RCI I/O unit (Note), respectively.  Furthermore, RCI hosts and RCI I/O units are generally referred to as RCI units.

Note:    RCI I/O unit might be described as RCI-IO unit.

While multiple RCI units consisting of an RCI host, another RCI host, and RCI I/O units are connected through the RCI, the RCI controls power supply to all these RCI units together and performs other controls on the RCI I/O units.

By using RCI cables to connect RCI units and RCI setting commands, the following RCI functions can be used:

● Connecting and controlling RCI I/O units
● Asynchronous RCI monitoring (Note) of RCI hosts in a cluster environment

Note:    Asynchronous RCI monitoring is a function that immediately detects the panic state in any of the nodes that compose a cluster. The asynchronous RCI monitoring enables the cluster to quickly recover from a failure in a monitored node.

Note:    When the RCI network is used, adequate consideration of security is necessary for LAN connections of domains.

- RCI redundancy (only for the high-end system)

    The eXtended System Control Facility (XSCF) unit (Note) of the high-end system has a redundant configuration (duplicated configuration), realizing a high-reliability system. The redundant configuration of the XSCF unit can duplicate a network (RCI network) created by connecting RCI units with RCI cables.

    Note:    The XSCF has a system control facility that runs on a service processor provided as standard in the server. A board with a preinstalled XSCF control program (XSCF firmware) is an XSCF unit.

## 1.2    RCI Functions

This section describes the functions provided by the RCI.

- Control of power supply to RCI I/O units

    When an RCI host is powered on or off, the RCI host powers on or off, respectively, RCI I/O units synchronously.  When at least one RCI host in an RCI network is powered on, all RCI I/O units are powered on synchronously.  When all RCI hosts are powered off, all RCI I/O units are powered off synchronously.

- Interlocking mechanism for power supply to domains

    When remote power control mode is set for a domain, the domain is powered on and off in synchronization with other domains in current server and other domains in the RCI network.

    To set remote power control mode in a domain, execute the setpwrmode (1M) command in the domain.

    For details, see the *Enhanced Support Facility User's Guide for Machine Administration.*

- Facility control

    Different kinds of facility control are available when the external power controller is connected to the RCI.  The external power controller can link with the customer's existing facilities, power on each unit, recognize alarms of each unit, use the operator call function through a contact interface, and perform other such operations.  Use the setrcic (8) command at the setting of the facility control.  For details on the facility control, contact authorized service personnel.

- Power-on wait

    The power-on wait function automatically powers on RCI I/O units before powering on RCI hosts.

    To use this function in a domain, execute the setpowerupdelay (8) command in the domain.

    For details, see the *XSCF Reference Manual*.

- Asynchronous RCI monitoring

    The following functions are available when the asynchronous RCI monitoring function is enabled for a cluster:

    ● Mutual monitoring for detection of abnormalities in RCI hosts (asynchronous monitoring)
      In addition to performing periodic monitoring by INTERCONNECT, this function detects abnormalities such as the panic state in an RCI host.
    ● Reliable stopping of an abnormal RCI host
      This function stops, without fail, an abnormal RCI host without terminating a hang-up, slowdown, or generated panic.
    ● Switch control
      This function controls line selector switching or other switching in the event that an RCI host fails.

- RCI network status monitoring

    For stable operation of an RCI network, an RCI host constantly monitors the status of the RCI network.  Upon detection of a failure in the RCI network, the RCI host collects a hardware log and reports the failure to the relevant domain.

Note:    When the RCI hosts are connected in a cluster configuration, the rebootxscf (8) command detects a failure in the RCI network and reports the failure to the relevant domain. When the failure reported to the domain, the cluster software of the domain may suspend the asynchronous RCI monitoring of the domain side. In this case, wait for the rebootxscf (8) command to complete and restart the asynchronous RCI monitoring of the domain. For the settings of the asynchronous RCI monitoring function of the domain, see the cluster software manuals..

## 1.3     RCI Connection Scheme

This section outlines RCI connection patterns.

• Basic configuration

Figure 1.1 shows a connection pattern with an RCI host and RCI I/O units.

Figure 1.1  Connections to RCI I/O units
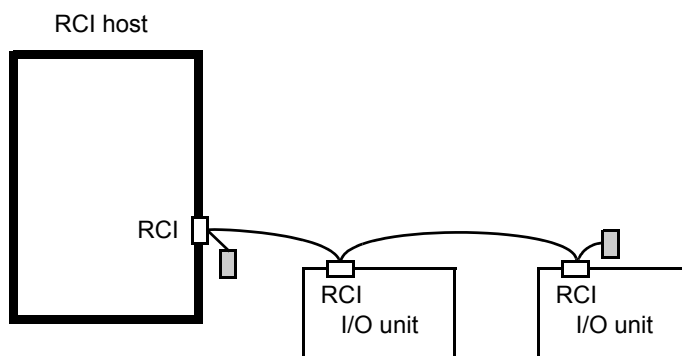


RCI cables are connected in sequence to respective units using T-branch connectors.

RCI terminating resistors must be connected to the T-branch connectors at both ends of a set of RCI connections.

Up to 32 RCIs including the RCI host can be connected.

Note that the maximum RCI cable length is 150 meters.

Use the repeater function of the external power controller to extend the cable length used and to increase the number of connected RCI units.

Note:    The external power controller is included in the number of RCI units.

- Cluster configuration

    Figure 1.2 shows a cluster connection pattern.

    Figure 1.2  Cluster connections
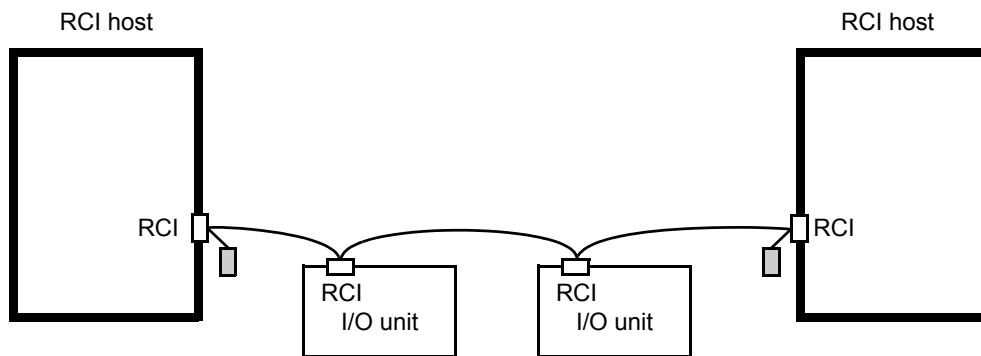


    Up to 32 RCI hosts can be connected.

    The cluster connection requirements, such as the maximum cable length and the number of connectable RCI I/O units, are the same as the basic configuration requirements.

    Note:    The repeater function of the external power controller cannot be used to increase the number of RCI hosts.

- Duplicated configuration

    Figure 1.3 shows the connection pattern of a duplicated configuration.

    Figure 1.3  Duplicated configuration
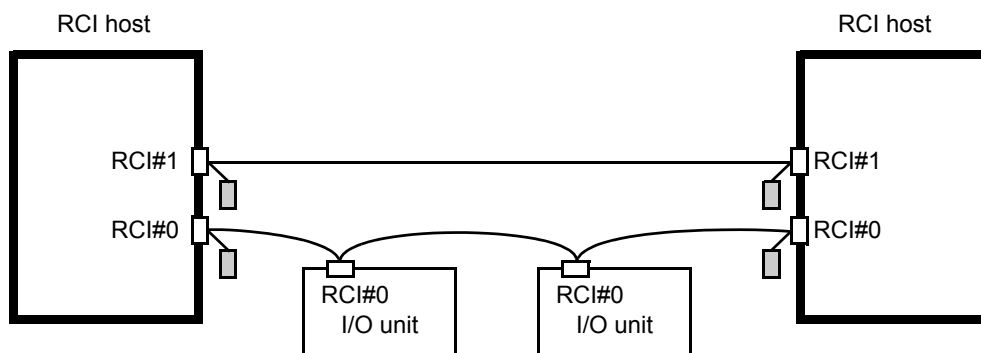


    RCI hosts can be constructed in a duplicated configuration only if their XSCF units are in a redundant configuration (duplicated configuration).

Note: In case the XSCF unit is duplicated, connect RCI hosts or RCI I/O units to the same RCI network system. That is, connect the #0 system to the #0 one, and connect the #1 system to #1 one.

Figure 1.4 shows a connection pattern that connects both duplicated and unduplicated configurations.

Figure 1.4 Mixture of duplicated and unduplicated configurations
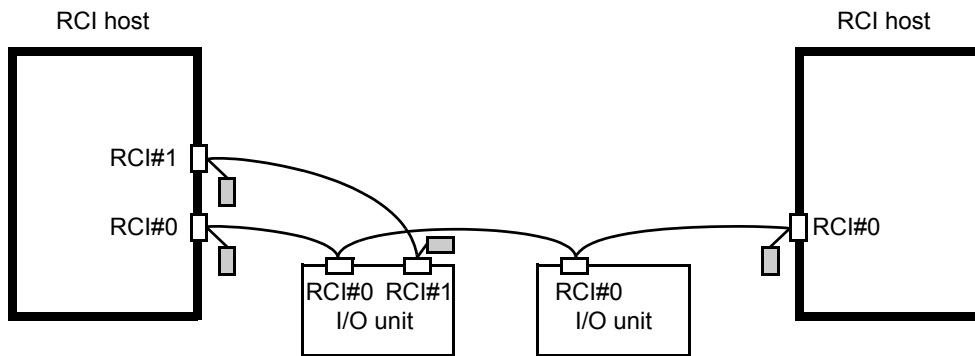


The pattern can contain RCI I/O units and RCI hosts that do not support a duplicated configuration.

Connect them to the duplicate system. Connect RCI hosts that do not support a duplicated configuration to the #0 system.

If an RCI host that does not support a duplicated configuration were already connected, RCI I/O units would be connected to the #0 system.

Note: When an RCI host of the duplicated configuration is connected with RCI hosts or RCI I/O units that do not support a duplicated configuration, it may fail to control the RCI host or the RCI I/O unit on the #0 system in the following case:

● When an XSCFU#0 failure generated an XSCF failover and the Active XSCF Unit switched to XSCFU#1.

In this case, maintenance work of XSCFU#0 becomes necessary.

# CHAPTER 2  Setup of the RCI for Operation

This chapter describes setup information for use of the RCI.

## 2.1     Overview of RCI Setup

The RCI can be set up as follows.

Note:     RCI setup as explained in this chapter is carried out by authorized service
personnel.

● Prepare a serially-connected PC or a PC connected to the XSCF-LAN, specify its
IP address, establish a connection to the XSCF, and use the XSCF Shell.

The RCI is configured in the following types of setup:

● RCI Setup for Initial Installation
● RCI Setup for Addition of an RCI I/O Unit
● RCI Setup for Addition of an RCI Host
● RCI Setup for Replacement of an RCI I/O Unit
● RCI Setup for Replacement of an RCI Host
● RCI Setup for Deletion of an RCI I/O Unit
● RCI Setup for Deletion of an RCI Host

Each setup for RCI configuration is explained in the following manner:

| |
|---|
| 1 The explanation of each RCI setup begins with a description of the overall setup flow. |
| 2 Setup procedures are then explained with setting examples. |
| • For detailed explanations and details on options of XSCF Shell commands, see the man pages or, Chapter 3, "Command Reference." |
| • This section does not explain in detail the connection between the XSCF and a PC or terminal and methods for logging in to the XSCF.  For details, see the *XSCF User's Guide*. |

# 2.2     RCI Setup for Initial Installation

This section explains the procedure for initial RCI setup, which assumes RCI settings have not been configured.

Note:    Perform this work when this system is not using any RCI I/O unit.

## 2.2.1    RCI Setup Flow

RCI setup for initial installation contains the following steps:

1    Confirming RCI Initialization
2    Connecting RCI Cables
3    Making an RCI Address Setting
4    Making an RCI Configuration Setting

## 2.2.2    Confirming RCI Initialization

Before connecting an RCI cable to an RCI host, confirm that RCI settings have been initialized.

- To confirm RCI initialization:

**1.** Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000f7fff
 Inactive
The command completed successfully.
```

Confirm that "address" is 000f7fff (initial address value).
If RCI settings have not been initialized, perform the next step.

**2.** Execute the setrci (8) command to initialize RCI settings.

```
XSCF> setrci -c init
The command completed successfully.
```

### 2.2.3    Connecting RCI Cables

Connect RCI cables.

Connect RCI units in sequence with RCI cables and their T-branch connectors.
Connect RCI terminating resistors to the T-branch connectors at both ends of a set of
RCI connections.

### 2.2.4    Making an RCI Address Setting

Specify "000101ff" as the RCI address for the first RCI host.

The RCI address must be unique in duplicate RCI networks.

- To specify an RCI address:

- Execute the setrci (8) command, and specify an RCI address.

```
<Example> Specifying the RCI address 000101ff for the XSCF
XSCF> setrci -c set <1>
The command completed successfully.
```

- To confirm an RCI address:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is correct.
To correct the RCI address, start again from RCI initialization.

### 2.2.5    Making an RCI Configuration Setting

Make an RCI network setting.

RCI addresses are automatically set for RCI I/O units connected through the RCI so
that the units can use RCI functions.

Note:    Before beginning this RCI setup work, confirm that power cords are
connected to all RCI units.

Note:    To make an RCI configuration setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI configuration setting:

- Execute the setrci (8) command, and make an RCI configuration setting.

```
XSCF> setrci -c initconfig
................................................
The command completed successfully.
```

- To confirm an RCI configuration setting:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F  sys-phase ctgry  dev-cls  sub-cls tm-out
 000101ff OFF -   ACT  -          host  0001     0b      -
The command completed successfully.
```

Confirm that the displayed LIST contents include the connected RCI unit.

For details on LIST contents, see Chapter 3, "Command Reference."

# 2.3    RCI Setup for Addition of an RCI I/O Unit

This section explains the setup procedure for adding an RCI I/O unit to this system for which RCI setup for initial installation has already been completed.

This work can be performed while an existing domain is running.

## 2.3.1    RCI Setup Flow

RCI setup for addition of an RCI I/O unit contains the following steps:

1    Connecting an RCI Cable
2    Making an RCI Addition Setting

## 2.3.2    Connecting an RCI Cable

**1.** Insert a T-branch connector and an RCI cable into the existing set of connections of RCI cables.

**2.** Connect the T-branch connector to the RCI I/O unit to be added.

## 2.3.3    Making an RCI Addition Setting

The added RCI I/O unit must be connected to the RCI network.

An RCI address is automatically set for the added RCI I/O unit so that the unit can use RCI functions.

An RCI addition setting can be made only once from an arbitrary RCI host.

Note:    Before beginning this RCI setup work, confirm that power cords are connected to all RCI units.

Note:    To make an RCI addition setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI addition setting:

- Execute the setrci (8) command, and make an RCI addition setting.

```
XSCF> setrci -c addconfig
.................................................
The command completed successfully.
```

- To confirm an RCI addition setting:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F   sys-phase  ctgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT   -          host  0001    0b      -
 003001ff OFF -   ACT   -          disk  0400    04      -
The command completed successfully.
```

Confirm that the displayed LIST contents include the connected RCI I/O unit.

For details on LIST contents, see Chapter 3, "Command Reference."

# 2.4 RCI Setup for Addition of an RCI Host

## 2.4.1 RCI Setup Flow

RCI setup for addition of an RCI host contains the following steps:

1   Confirming RCI Initialization
2   Connecting an RCI Cable
3   Making an RCI Address Setting
4   Making an RCI Addition Setting

## 2.4.2 Confirming RCI Initialization

Before connecting an RCI cable to an RCI host, confirm that RCI settings have been initialized.

- To confirm RCI initialization:

**1.** Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000f7fff
 Inactive
The command completed successfully.
```

Confirm that "address" is 000f7fff (initial address value).

If RCI settings have not been initialized, perform the next step.

**2.** Execute the setrci (8) command to initialize RCI settings.

```
XSCF> setrci -c init
The command completed successfully.
```

## 2.4.3    Connecting an RCI Cable

Connect an RCI cable to the RCI host to be added.

**1.** Insert a T-branch connector and an RCI cable into the existing set of connections of RCI cables.

**2.** Connect the T-branch connector to the RCI host to be added.

Note:    Always do Confirming RCI Initialization before connecting an RCI cable to the RCI host.

## 2.4.4    Making an RCI Address Setting

Specify an RCI addresses in a range of 000102ff to 000120ff for the RCI host to be added.

The RCI address must be unique in the existing RCI network.

RCI addresses must be assigned in the order of 000102ff, 000103ff, 000104ff, and so on.

Specify the RCI address on the RCI host to be added.

- To specify an RCI address:

• Execute the setrci (8) command, and specify an RCI address.

```
<Example> Specifying the RCI address 000102ff for the XSCF
XSCF> setrci -c set <2>
The command completed successfully.
```

Specify a decimal number for the fifth and sixth digits of the target RCI address.
A decimal number in a range of 1 to 32 can be used.

- To confirm the specified RCI address:

• Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000102ff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is correct.
To correct the RCI address, start again from RCI initialization.

## 2.4.5    Making an RCI Addition Setting

The added RCI host must be connected to the RCI network.

The RCI address of the added RCI host is synchronized with those of existing RCI hosts so that the added cabinet can use RCI functions.

Make an RCI addition setting on the added RCI host.

Note:    Before beginning this RCI setup work, confirm that power cords are connected to all RCI units.

Note:    To make an RCI addition setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI addition setting:

  • Execute the setrci (8) command, and make an RCI addition setting.

```
XSCF> setrci -c addconfig
.................................................
The command completed successfully.
```

- To confirm an RCI addition setting:

  • Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000102ff
 Active
LIST
 address  pwr alm I/F   sys-phase   tgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT    -           host 0001    0b      -
 000102ff OFF -   ACT    -           host 0001    0b      -
 003001ff OFF -   ACT    -           disk 0400    04      -
The command completed successfully.
```

Confirm that the displayed LIST contents include the added RCI host.

For details on LIST contents, see Chapter 3, "Command Reference."

# 2.5      RCI Setup for Replacement of an RCI I/O Unit

## 2.5.1    RCI Setup Flow

RCI setup for replacement of an RCI I/O unit contains the following steps:

1   Confirming an RCI Address
2   Replacing an RCI I/O Unit
3   Making an RCI Replacement Setting

Note:    Perform this RCI setup work for each RCI I/O unit to be replaced.

## 2.5.2    Confirming an RCI Address

Confirm the RCI address or location of the RCI I/O unit to be replaced.

- To confirm an RCI address:

**1.**  Push the service pin of the RCI I/O unit to be replaced.

**2.**  Execute the setrci (8) command to display the address of the RCI I/O unit whose service pin is pushed.

```
XSCF> setrci -c idpin
RCI:XXXX VER:XX DATE:XXXX XX/XX XX:XX;XX
The command completed successfully.
```

If the RCI I/O unit to be replaced has failed and cannot make a transmission, its RCI address cannot be confirmed by the above operation.  Perform the following operation to confirm the RCI address.

**3.**  Execute the setrci (8) command to display a list of connected RCI units.

```
XSCF> setrci -c stat
HOST
 address 000102ff
 Active
LIST
 address  pwr alm I/F   sys-phase   tgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT    -          host 0001    0b       -
 003001ff OFF -   ACT    -          disk 0400    04       -
 003002ff OFF -   INACT  -          disk 0400    04       -
 003003ff OFF -   ACT    -          disk 0400    04       -
The command completed successfully.
```

On the list, "INACT" is displayed in the "I/F" column of the RCI I/O unit that cannot make a transmission to the RCI.

- To confirm the location of an RCI I/O unit:

If the RCI address of the target RCI I/O unit is already known, such as because of an error message, the location of the RCI I/O unit can be confirmed by specifying its RCI address and triggering blinking of its LED.

1. Execute the setrci (8) command to trigger blinking of the LED of the RCI I/O unit at the specified RCI address.

```
<Example> Specifying the RCI address 003002ff
XSCF> setrci -c ledon <003002ff>
.....
The command completed successfully.
```

2. Locate the RCI I/O unit whose LED is blinking.

3. Execute the setrci (8) command to stop the blinking LED of the RCI I/O unit.

```
XSCF> setrci -c ledoff
The command completed successfully.
```

## 2.5.3  Replacing an RCI I/O Unit

Remove the T-branch connector together with the RCI cables from the RCI I/O unit to be replaced.  Replace the RCI I/O unit, and connect the T-branch connector and RCI cables to the new RCI I/O unit.

## 2.5.4  Making an RCI Replacement Setting

The added RCI I/O unit must be connected to the RCI network.

The RCI address of the added RCI I/O unit is synchronized with that of an existing RCI host so that the unit can use RCI functions.

An RCI replacement setting can be made only once from an arbitrary RCI host.

Note:   Before beginning this RCI setup work, confirm that power cords are connected to all RCI units.

Note:   To make an RCI replacement setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI replacement setting:

- Execute the setrci (8) command, and make an RCI replacement setting.

```
<Example> Replacing the RCI I/O unit at the RCI address 003002ff
XSCF> setrci -c replaceconfig <003002ff>
.................................................
The command completed successfully.
```

In <address>, specify the RCI address (eight-digit hexadecimal number) obtained by RCI address confirmation.

- To confirm an RCI replacement setting:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000102ff
 Active
LIST
 address  pwr alm I/F   sys-phase  ctgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT   -          host  0001    0b      -
 003001ff OFF -   ACT   -          disk  0400    04      -
 003002ff OFF -   ACT   -          disk  0400    04      -
 003003ff OFF -   ACT   -          disk  0400    04      -
The command completed successfully.
```

On the list, confirm that "ACT" is displayed in the "I/F" column of the RCI I/O unit at the RCI address specified for the RCI replacement setting.

# 2.6     RCI Setup for Replacement of an RCI Host

## 2.6.1     RCI Setup Flow

RCI setup for replacement of an RCI host contains the following steps:

1  Replacing an RCI Host
2  Confirming RCI Initialization
3  Connecting an RCI Cable
4  Making an RCI Address Setting

5    Making an RCI Replacement Setting

Note:    Perform this RCI setup work for each RCI host to be replaced.

## 2.6.2    Replacing an RCI Host

Remove the T-branch connector together with the RCI cable from the RCI host to be replaced, and replace the RCI host with a new one.

Do not connect the removed T-branch connector to the new RCI host at this time.

## 2.6.3    Confirming RCI Initialization

Before connecting an RCI cable again to a new RCI host, confirm that RCI settings have been initialized.

- To confirm RCI initialization:

**1.** Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000f7fff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is 000f7fff (initial address value).

If RCI settings have not been initialized, perform the next step.

**2.** Execute the setrci (8) command to initialize RCI settings.

```
XSCF> setrci -c init
The command completed successfully.
```

## 2.6.4    Connecting an RCI Cable

Connect the removed T-branch connector together with the RCI cable to the new RCI host.

Note:    Always do Confirming RCI Initialization before reconnecting the RCI cable to the RCI host.

## 2.6.5    Making an RCI Address Setting

Assign an RCI address to the new RCI host after replacement.

Make an RCI address setting on the new RCI host.

> **IMPORTANT**
> ‣ Specify the same RCI address as that assigned to the old RCI host.

- To specify an RCI address:

• Execute the setrci (8) command, and specify an RCI address.

```
<Example> Specifying the RCI address 000102ff for the XSCF
XSCF> setrci -c set <2>
The command completed successfully.
```

Specify a decimal number for the fifth and sixth digits of the target RCI address.
A decimal number in a range of 1 to 32 can be used.

- To confirm the specified RCI address:

• Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000102ff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is correct.
To correct the RCI address, start again from RCI initialization.

## 2.6.6    Making an RCI Replacement Setting

The new RCI host must be connected to the RCI network.

The RCI address of the new RCI host is synchronized with those of existing RCI hosts so that the new cabinet can use RCI functions.

An RCI replacement setting can be made on the new RCI host.

Note:    Before beginning this RCI setup work, confirm that power cords are connected to all RCI units.

Note:    To make an RCI replacement setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI replacement setting:

- Execute the setrci (8) command, and make an RCI replacement setting.

```
XSCF> setrci -c replaceconfig
.................................................
The command completed successfully.
```

- To confirm an RCI replacement setting:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000102ff
 Active
LIST
 address  pwr alm I/F   sys-phase  ctgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT    -          host  0001    0b      -
 000102ff OFF -   ACT    -          host  0001    0b      -
 003001ff OFF -   ACT    -          disk  0400    04      -
The command completed successfully.
```

Confirm that the displayed LIST contents include the replacement RCI host.

For details on LIST contents, see Chapter 3, "Command Reference."

# 2.7    RCI Setup for Deletion of an RCI I/O Unit

## 2.7.1    RCI Setup Flow

RCI setup for deletion of an RCI I/O unit contains the following steps:

1   Confirming an RCI Address
2   Initializing RCI Hosts
3   Deleting an RCI I/O Unit
4   Making an RCI Address Setting

5    Making an RCI Deletion Setting

Note:    Initialize each RCI host when you setup the RCI for deletion of an RCI I/O unit. Specify the same RCI address as that assigned to the old RCI host.

## 2.7.2    Confirming an RCI Address

Confirm the RCI address or location of the RCI I/O unit to be deleted.

- To confirm an RCI address:

**1.** Push the service pin of the RCI I/O unit to be deleted.

**2.** Execute the setrci (8) command to display the address of the RCI I/O unit whose service pin is pushed.

```
XSCF> setrci -c idpin
RCI:XXXX VER:XX DATE:XXXX XX/XX XX:XX;XX
The command completed successfully.
```

If the RCI I/O unit to be deleted has failed and cannot make a transmission, its RCI address cannot be confirmed by the above operation.  Perform the following operation to confirm the RCI address.

**3.** Execute the setrci (8) command to display a list of connected RCI units.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F   sys-phase   tgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT    -          host  0001    0b       -
 003001ff OFF -   INACT  -          disk  0400    04       -
 003002ff OFF -   ACT    -          disk  0400    04       -
 The command completed successfully.
```

On the list, "INACT" is displayed in the "I/F" column of the RCI I/O unit that cannot make a transmission to the RCI.

- To confirm the location of an RCI I/O unit:

    If the RCI address of the target RCI I/O unit is already known, such as because of an error message, the location of the RCI I/O unit can be confirmed by specifying its RCI address and triggering blinking of its LED.

**1.** Execute the setrci (8) command to trigger blinking of the LED of the RCI I/O unit at the specified RCI address.

```
<Example> Specifying the RCI address 003001ff
XSCF> setrci -c ledon <003001ff>
.....
The command completed successfully.
```

**2.** Locate the RCI I/O unit whose LED is blinking.

**3.** Execute the setrci (8) command to stop the blinking LED of the RCI I/O unit.

```
XSCF> setrci -c ledoff
The command completed successfully.
```

## 2.7.3    Initializing RCI Hosts

Initialize the RCI setting for each RCI host. To initialize the RCI setting, all domains must be powered off.

- To initialize RCI settings:

- Execute the setrci (8) command to initialize RCI settings.

```
XSCF> setrci -c init
The command completed successfully.
```

- To confirm RCI initialization:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000f7fff
  Inactive
The command completed successfully.
```

Confirm that the "address" value is 000f7fff (initial address value).

## 2.7.4      Deleting an RCI I/O Unit

Remove the T-branch connector together with the RCI cables from the RCI I/O unit to be deleted.  To connect RCI units in sequence with RCI cables, remove the extra T-branch connectors and RCI cables.

## 2.7.5      Making an RCI Address Setting

Specify an RCI addresses in a range of 000101ff to 000120ff for the RCI host to be initialized.

Each RCI address for RCI hosts must be assigned in ascending order of address.

**IMPORTANT**
 ▸ Specify the same RCI address as that assigned to the old RCI host.

- • To specify an RCI address:

- • Execute the setrci (8) command, and specify an RCI address.

```
<Example> Specifying the RCI address 000101ff for the XSCF
XSCF> setrci -c set <1>
The command completed successfully.
```

Specify a decimal number for the fifth and sixth digits of the target RCI address.
A decimal number in a range of 1 to 32 can be used.

- • To confirm the specified RCI address:

- • Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is correct.
To correct the RCI address, start again from RCI initialization.

## 2.7.6    Making an RCI Deletion Setting

After deletion the RCI I/O unit, the RCI I/O units connected by RCI cables must be connected to the RCI network.

Each RCI address for RCI hosts must be assigned in ascending order of address.

RCI addresses are automatically set for RCI I/O units connected through the RCI so that the units can use RCI functions.

Note:    Before beginning this RCI setup work, confirm that power cords are connected to all RCI units.

Note:    To make an RCI deletion setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI deletion setting:

- Execute the setrci (8) command with the addconfig option, and make an RCI deletion setting.

```
XSCF> setrci -c addconfig
...............................................
The command completed successfully.
```

You can make the RCI deletion setting without changing the addresses of RCI I/O units by using the addconfig option.

- To confirm an RCI deletion setting:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F   sys-phase  ctgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT   -          host  0001    0b      -
 003002ff OFF -   ACT   -          disk  0400    04      -
The command completed successfully.
```

Confirm that the displayed LIST contents don't include the deleted RCI I/O unit.

# 2.8     RCI Setup for Deletion of an RCI Host

## 2.8.1     RCI Setup Flow

RCI setup for deletion of an RCI host contains the following steps:

1    Confirming an RCI Address
2    Initializing RCI Hosts
3    Deleting an RCI Host
4    Making an RCI Address Setting
5    Making an RCI Deletion Setting

Note:     Initialize each RCI host when you setup the RCI for deletion of an RCI host.
Specify the same RCI address as that assigned to the old RCI host.
When you delete the RCI host that is configured with the cluster software,
change the setting of the cluster software according to the manual of the
cluster software before the RCI settings.

## 2.8.2     Confirming an RCI Address

Confirm the RCI address of the RCI host to be deleted.

- • To confirm an RCI address:

- • Execute the setrci (8) command to display a list of connected RCI units.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F   sys-phase    tgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT    -            host 0001    0b      -
 000102ff OFF -   ACT    -            host 0001    0b      -
 000103ff OFF -   ACT    -            host 0001    0b      -
 003001ff OFF -   INACT  -            disk 0400    04      -
 The command completed successfully.
```

Confirm that the displayed LIST contents include the RCI host which will be deleted.
(Example: 000102ff)

## 2.8.3     Initializing RCI Hosts

Initialize the RCI setting for each RCI host. To initialize the RCI setting, all domains must be powered off.

- To initialize RCI settings:

- Execute the setrci (8) command to initialize RCI settings.

```
XSCF> setrci -c init
The command completed successfully.
```

- To confirm RCI initialization:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000f7fff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is 000f7fff (initial address value).

## 2.8.4     Deleting an RCI Host

Remove the T-branch connector together with the RCI cable from the RCI host to be replaced.  To connect RCI units in sequence with RCI cables, remove the extra T-branch connectors and RCI cables.

## 2.8.5     Making an RCI Address Setting

Specify an RCI addresses in a range of 000101ff to 000120ff for the RCI host to be initialized.

Each RCI address for RCI hosts must be assigned in ascending order of address.

IMPORTANT
  ‣ Specify the same RCI address as that assigned to the old RCI host.

- To specify an RCI address:

- Execute the setrci (8) command, and specify an RCI address.

```
<Example> Specifying the RCI address 000101ff for the XSCF
XSCF> setrci -c set <1>
The command completed successfully.
```

Specify a decimal number for the fifth and sixth digits of the target RCI address.

A decimal number in a range of 1 to 32 can be used.

- To confirm the specified RCI address:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Inactive
The command completed successfully.
```

Confirm that the "address" value is correct.

To correct the RCI address, start again from RCI initialization.

## 2.8.6    Making an RCI Deletion Setting

After deletion the RCI host, the RCI hosts connected by RCI cables must be connected to the RCI network.

Each RCI address for RCI hosts must be assigned in ascending order of address.

RCI addresses are automatically set for RCI I/O units connected through the RCI so that the RCI hosts and the RCI I/O units can use RCI functions.

Note:    Before beginning this RCI setup work, confirm that power cords are connected to all RCI units.

Note:    To make an RCI deletion setting for an RCI unit equipped with a main line switch, set the main line switch to the ON position.

- To make an RCI replacement setting:

- Execute the setrci (8) command with the addconfig option, and make an RCI deletion setting.

```
XSCF> setrci -c addconfig
..................................................
The command completed successfully.
```

You can make the RCI deletion setting without changing the addresses of RCI I/O units by using the addconfig option.

- To confirm an RCI deletion setting:

- Execute the setrci (8) command to display the RCI status.

```
XSCF> setrci -c stat
HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F   sys-phase  ctgry dev-cls sub-cls tm-out
 000101ff OFF -   ACT    -          host  0001    0b      -
 000103ff OFF -   ACT    -          host  0001    0b      -
 003001ff OFF -   ACT    -          disk  0400    04      -
The command completed successfully.
```

Confirm that the displayed LIST contents don't include the deleted RCI host.
(Example: "000102ff" is not displayed.)
For details on LIST contents, see Chapter 3, "Command Reference."

# CHAPTER 3  Command Reference

## 3.1     setrci

- NAME

  setrci - configure or display the environment of the remote cabinet interface (RCI)

- SYNOPSIS

  **setrci** -c stat

  **setrci** -c init [-s *RCI_network]*

  **setrci** -c set *host_no*

  **setrci** -c initconfig [-s *RCI_network*]

  **setrci** -c addconfig [-s *RCI_network*]

  **setrci** -c replaceconfig [ *RCI_address*]

  **setrci** -c ledon *RCI_address*

  **setrci** -c ledoff

  **setrci** -c idpin

  **setrci** -h

- DESCRIPTION

  The setrci(8) command configures or displays information that accompanies the initial setting and maintenance of the RCI environment.

  The following can be set or displayed:

| Item | Description |
|------|-------------|
| stat | Displays the status of the RCI network. |
| init | Initializes the RCI setting. Initialization is only performed for the host that executes the command. If there are other hosts connecting to the RCI, initialization must be performed for each host. |
| set | Sets an RCI address. Use this specification when the RCI setting has been initialized. After the setting, "-c initconfig" or "-c addconfig" must be executed. |

| Item | Description |
|---|---|
| initconfig | Makes the RCI setting on the first host. An RCI I/O unit connected via RCI is searched for and found, and then an RCI address is assigned. To delete an RCI I/O unit or host also, the RCI setting will be made on the first host. At this time, in order to keep the RCI I/O unit address unchanged, "-c addconfig" instead of this option must be executed. |
| addconfig | Adds an RCI I/O unit or host. When an RCI I/O unit is added, the RCI I/O unit newly connected to RCI is searched for and found, and then an RCI address is assigned. When a host is added, it is also added to the RCI network. "-c set" must be executed beforehand on the added host to set the RCI address for the host. In addition, to delete an RCI I/O unit or host and to make the RCI setting on the first host, use this option. Using this option, the RCI setting can be made without changing the address of the RCI I/O unit. You need to initialize the RCI setting, delete the unit, and execute "-c set" beforehand to reconfigure the original RCI address. |
| replaceconfig | Replaces an RCI I/O unit or host. When an RCI I/O unit is replaced, the specified RCI address is assigned to the substitute RCI I/O unit. When a host is replaced, a substitute host is added to the RCI network after the information of the host to be replaced is deleted from the RCI network. "-c set" must be executed beforehand on the substitute host to set the RCI address for the host. An RCI address cannot be specified when replacing a host. |
| ledoff | Stops the blinking CHECK LED of an RCI I/O unit. This specification is used such as when the work for identifying an RCI I/O unit is completed. |
| idpin | Displays the RCI address of the RCI I/O unit whose ID-PIN has been pressed. This specification is used when checking the RCI address of an RCI I/O unit. |

- PRIVILEGES

    You must have platadm or fieldeng privileges to run this command.

    See setprivileges(8) for more information.

- OPTIONS

    The following options are supported:

| Option | Description | |
|---|---|---|
| -c stat | Displays the status of the *RCI network*. | |
| -c init | Initializes the RCI setting. | |
| -c set *host_no* | Sets the address specified by *host_no* for the RCI address. An integer number ranging from 0 to 32 must be specified for *host_no*. The specification of one address cannot be duplicated among hosts connected to RCI. In addition, addresses must be assigned sequentially starting from 1. "-c set" must be executed in the state where initialization has been completed by "-c init". | |
| -c initconfig | Make the RCI setting at initial setting. "-c initconfig" must be executed when the RCI setting has been initialized by "-c init" and the RCI address has been set by "-c set". | |
| -c addconfig | Makes the RCI setting for when an RCI I/O unit or host is added. | |
| -c replaceconfig | Makes the RCI setting for when an RCI I/O unit or host is replaced. | |
| -c ledon | Makes the CHECK LED of an RCI I/O unit blink. | |
| -c ledoff | Stops the blinking CHECK LED of an RCI I/O unit. | |
| -c idpin | Displays the RCI address of the RCI I/O unit whose ID-PIN has been pressed. | |
| -h | Displays usage statement. When used with other options or operands, an error occurs. | |
| -s *RCI_network* | Specifies an RCI network. Either of the networks shown below can be specified for *RCI_network*. The specification must be made together with "-c init", "-c initconfig" and "-c addconfig". | |
| | RCI-0 | Specifies the RCI network on the #0 side. |
| | RCI-1 | Specifies the RCI network on the #1 side |

- OPERANDS

    The following operands are supported:

| Operand | Description | |
|---|---|---|
| *RCI_address* | Specifies a target RCI address. A value in any of the following ranges can be specified for *RCI_address*: | |
| | 003001ff-00307fff | |
| | 007001ff-00707fff | |
| | 002001ff-00207fff | |
| | 006001ff-00607fff | |

- EXTENDED DESCRIPTION
  - When "-c stat" is specified, the following states are displayed:

| Item | Description | |
|---|---|---|
| RCI-x | RCI network name. | |
| address | RCI address. It is displayed as an eight-digit hexadecimal number. When the RCI address of the host has not been set, the default value (00ff7fff) is displayed. | |
| Active/Inactive | RCI state. Inactive means that the RCI is in the initial state, and Active means that the RCI setting has been made. | |
| | Inactive | The RCI is in the initial state. |
| | Active | The RCI setting has been made. |
| Mainte | The mode switch is Service state. | |

  - When the RCI state is Active, the following information is displayed after List:

| Item | Description | |
|---|---|---|
| address | The address of the connected RCI unit. | |
| pwr | Power state of the RCI unit. | |
| | ON | Powered on. |
| | OFF | Powered off. |
| alm | Alarm state of the RCI unit. | |
| | - | Normal state. |
| | ALM | Alarm state. |
| | WRN | Warning state. |
| I/F | RCI unit interface status. | |
| | ACT | Valid state. |
| | INACT | Invalid state. |
| sys-phase | Operating state of the host connected to RCI. One of the following is displayed: | |
| | power-off | Powered off. |
| | panic | In the panic state. |
| | shdwn-start | Shutdown in progress. |
| | shdwn-cmplt | Shutdown has completed. |
| | dump-cmplt | Dump has completed. |
| | booting | System being started. |
| | running | System in operation. |
| | - | Not support the status display. |

| Item | Description | |
|---|---|---|
| ctgry | Category of the RCI unit. | |
| | One of the following is displayed: | |
| | host | Host unit. |
| | disk | File unit. |
| | rcic | External power control device. |
| | linesw | Line switch. |
| | Other | Other devices. |
| dev-cls | Device class of the RCI unit. | |
| sub-cls | Subdevice class of the RCI unit. | |
| tm-out | Idle monitoring timeout period of RCI. Since it doesn't support the status display, "-" is always displayed. | |

- "-c init" needs to be executed in the system power-off status.
- "When -c initconfig", "-c addconfig", or "-c replaceconfig" is being executed, or the setrcic(8) command is being executed, do not execute the setrci(8) command on another host.
- When the setrci(8) command is executed, set all RCI units that are connected to RCI into the power-on state or standby state.
- Executing the setrci(8) command on a model that does not support the RCI function causes an error to occur.

- EXAMPLES

  EXAMPLE 1: Makes the first RCI setting on the first host in an M3000/M4000/ M5000 server.

```
XSCF> setrci -c init
RCI-0
..........
The command completed successfully.
RCI-1
..........
The command completed successfully.
XSCF> setrci -c set 1
RCI-0
..........
The command completed successfully.
RCI-1
..........
The command completed successfully.
XSCF> setrci -c initconfig
RCI-0
..........
The command completed successfully.
RCI-1
..........
The command completed successfully.
XSCF> setrci -c stat
RCI-0

HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F  sys-phase ctgry  dev-cls  sub-cls tm-out
 000101ff ON  -   ACT  -         host   0001     0b      -
 003001ff ON  -   ACT  -         disk   0400     10s     -

The command completed successfully.
RCI-1

HOST
 address 004101ff
 Active
LIST
 address  pwr alm I/F  sys-phase ctgry  dev-cls  sub-cls tm-out
 004101ff ON  -   ACT  -         host   0001     0b      -

The command completed successfully.
```

EXAMPLE 2: Makes the first RCI setting on the first host in an M8000/M9000 server.

```
XSCF> setrci -c init
..........
The command completed successfully.
XSCF> setrci -c set 1
..........
The command completed successfully.
XSCF> setrci -c initconfig
..........
The command completed successfully.
XSCF> setrci -c stat
RCI-0

HOST
 address 000101ff
 Active
LIST
 address  pwr alm I/F  sys-phase ctgry  dev-cls  sub-cls tm-out
 000101ff ON  -   ACT  -         host   0001     0b      -
 003001ff ON  -   ACT  -         disk   0400     10s     -

The command completed successfully.
```

- EXIT STATUS

    The following exit values are returned:

| Value | Description |
|-------|-------------|
| 0 | Successful completion. |
| >0 | An error occurred. |

# 3.2    setrcic

- NAME

  setrcic - make the setting of an external power control device or display its status.

- SYNOPSIS

  **setrcic** -c exrdy  *RCI_address*  [ *time*]

  **setrcic** -c opcalldisp  *RCI_address*

  **setrcic** -c opcallon  *RCI_address*  *callNo*

  **setrcic** -c opcalloff  *RCI_address*  *callNo*

  **setrcic** -h

- DESCRIPTION

  The setrcic(8) command makes the setting of an external power control device or displays its status.

  The following can be set or displayed:   Multiple items cannot be set at a time.

| Item | Description |
|---|---|
| exrdy | Sets or displays the EXRDY monitoring timeout periods of the specified external power control devices.  If the setting is inconsistent with the external equipment wait time, an error occurs. |
| opcalldisp | Displays the status of the operator call signal of the specified external power control devices. |
| opcallon | Sets the operator call signals of the specified external power control devices on. |
| opcalloff | Sets the operator call signals of the specified external power control devices off. |

- PRIVILEGES

  You must have platadm or fieldeng privileges to run this command.

  See setprivileges(8) for more information.

- OPTIONS

    The following options are supported:

| Option | Description |
|---|---|
| -c exrdy *RCI_address* [*time*] | Sets the EXRDY monitoring timeout period of the specified external power control devices.  Set the EXRDY monitoring timeout period in units of minutes for *time*.  If 0 is specified, EXRDY monitoring is disabled.  If *time* is omitted, the EXRDY monitoring timeout period is displayed. |
| -c opcalldisp | Displays the status of the operator call signals of the specified external power control devices. |
| -c opcallon *RCI_address* *callNo* | Sets the operator call signals of the specified external power control devices on.  Setting is made for the devices corresponding to the bits of *callNo* that contain "1". |
| -c opcalloff *RCI_address* *callNo* | Sets the operator call signals of the specified external power control devices off.  Setting is made for the devices corresponding to the bits of *callNo* that contain "1". |
| -h | Displays usage statement. When used with other options or operands, an error occurs. |

- OPERANDS

    The following operands are supported:

| Operand | Description |
|---|---|
| *RCI_address* | Specifies a target RCI address.  A value in any of the following ranges can be specified for *RCI_address*: |
| | 003001ff-00307fff |
| | 007001ff-00707fff |
| *time* | Sets the EXRDY monitoring timeout period when "-c exrdy" is specified in units of minutes.  Any decimal integer number ranging from 0 to 85 can be specified. |
| *callNo* | Specifies operator call information.  A two-digit hexadecimal number can be specified. |

- EXTENDED DESCRIPTION

    - When the setrci(8) command or setrcic(8) command is being executed on another host in the RCI network, do not execute the setrcic(8) command.
    - When the setrcic(8) command is executed, set all RCI units that are connected to RCI into the power-on state or standby state.
    - Executing the setrcic(8) command on a model that does not support the RCI function causes an error to occur.

- EXAMPLES

    Makes the setting of external power control.

    ```
    XSCF> setrcic -c exrdy 003001ff 10

    The command completed successfully.
    XSCF> setrcic -c exrdy 003001ff
    address:003001ff exrdy:10 min

    The command completed successfully.
    XSCF> setrcic -c opcallon 003001ff 0c

    The command completed successfully.
    XSCF> setrcic -c opcalldisp 003001ff
    address:003001ff callNo:0c

    The command completed successfully.
    XSCF> setrcic -c opcalloff 003001ff 0c

    The command completed successfully.
    XSCF> setrcic -c opcalldisp 003001ff
    address:003001ff callNo:00

    The command completed successfully.
    ```

- EXIT STATUS

    The following exit values are returned:

| Value | Description |
|-------|-------------|
| 0 | Successful completion. |
| >0 | An error occurred. |

# CHAPTER 4  Error Status

## 4.1    setrci Error Status

When the RCI build by the setrci (8) command ends abnormally and "Operation failed error status: XX" is displayed, the displayed error status code and explanation are described to the following table.

Table 4.1  The setrci error status

| Code | Explanation |
|------|-------------|
| 00 | Detected the duplicate RCI address. |
| 01 | RCI address of current unit is not configured or false. |
| 02 | Detected the duplicate RCI address of RCI host, or detected the undefined RCI address. |
| 03 | RCI address of current unit is not configured. |
| 04 | Over maximum entry of RCI table. |
| 05 | Detected anomaly in RCI table receiving. |
| 06 | Detected anomaly in RCI table sending. |
| 07 | Receiving status check from undefined RCI device. |
| 08 | Detected the loss of RCI master. |
| 09 | Detected anomaly of RCI table. |
| 0a | Synchronous time out of RCI table. |
| 0b | Synchronous retry out of RCI table. |
| 0c | Detected anomaly of RCI table. |
| 0d | Failed the version check of RCI table. |
| 0e | Detected anomaly of RCI table. |
| 0f | Detected anomaly in synchronous with RCI Neuron chip. |
| 20 | Detected the duplicate RCI address in RCI I/O unit (Expansion file unit, External power controller). |
| 30 | Detected the duplicate RCI address in RCI I/O unit (Line selector switch). |
| fd | RCI cannot be constructed, or it was cancelled. |
| fe | Other RCI unit is constructing the RCI network. |
| ff | RCI setup procedure is false. |

# 4.2     setrcic Error Status

When the RCI build by the setrcic (8) command ends abnormally and "Operation failed error status: XX" is displayed, the displayed error status code and explanation are described to the following table.

Table 4.2  The setrcic error status

| Code | Explanation |
|------|-------------|
| -1 | Detected an RCI transmission error. |
| -2 | Terminated the command execution due to RCI busy. (Note 1) |
| -3 | Internal error occurred in XSCF. (Note 2) |
| Note 1:  After a certain period of time, re-execute the setrcic (8) command.  When this case reappears, contact our field engineer. Note 2:  Contact our field engineer. | |