

# **FUJITSU Software**

## **ServerView Resource Orchestrator**

### **Virtual Edition V3.1.2**

# Reference Guide (Command)

Windows/Linux

J2X1-7607-06ENZ0(04)  
November 2015

# Preface

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## Purpose of This Document

This manual explains the commands available in FUJITSU Software ServerView Resource Orchestrator Virtual Edition (hereinafter Resource Orchestrator).

## Intended Readers

This manual is written for people who will install and administer systems using Resource Orchestrator.

It is strongly recommended that you read the "Design Guide VE" before using this manual.

When setting up systems, it is assumed that readers have the basic knowledge required to configure the servers, storage, and network devices to be installed.

## Structure of This Document

This manual is composed as follows:

### [Chapter 1 Overview](#)

Provides an overview of the commands provided in Resource Orchestrator.

### [Chapter 2 Login](#)

Explains the command used to log in to Resource Orchestrator.

### [Chapter 3 Resource Operations](#)

Explains the commands used to manage resources in Resource Orchestrator.

### [Chapter 4 Image Operations](#)

Explains the command used to perform image operations in Resource Orchestrator.

### [Chapter 5 Control and Environment Setup](#)

Explains the commands used to control Resource Orchestrator managers and agents, and to configure environment settings.

### [Chapter 6 Backup and Restoration Operations for Configuration Definition Information](#)

Explains the commands used to perform backup and restoration in Resource Orchestrator.

## Web Site URLs

URLs provided as reference sources within the main text are correct as of November 2015.

Please understand that they are subject to change without notice.

## Document Conventions

The notation in this manual conforms to the following conventions.

- When there is different information for the different versions of Resource Orchestrator, it is indicated as follows:

[All Editions]	Sections relevant for all editions
[Cloud Edition]	Sections related to Cloud Edition
[Virtual Edition]	Sections related to Virtual Edition

- When using Resource Orchestrator and the functions necessary differ due to the necessary basic software (OS), it is indicated as follows:

[Windows Manager]	Sections related to Windows manager
[Linux Manager]	Sections related to Linux manager
[Windows]	Sections related to Windows
[Linux]	Sections related to Linux
[Red Hat Enterprise Linux]	Sections related to Red Hat Enterprise Linux
[Solaris]	Sections related to Solaris
[VMware]	Sections related to VMware
[Horizon View]	Sections related to VMware Horizon View
[Hyper-V]	Sections related to Hyper-V
[Xen]	Sections related to RHEL5-Xen
[KVM]	Sections related to RHEL-KVM
[Solaris Zones]	Sections related to Solaris zones
[OVM for x86 3.2]	Sections related to Oracle VM Server for x86 3.2
[OVM for SPARC]	Sections related to Oracle VM Server for SPARC
[Physical Servers]	Sections related to physical servers

- Unless specified otherwise, the blade servers mentioned in this manual refer to PRIMERGY BX servers.
- Oracle Solaris may also be indicated as Solaris, Solaris Operating System, or Solaris OS.
- Oracle Solaris Zones may also be indicated as Solaris Containers or Solaris Container.
- Oracle VM Server for x86 may also be indicated as Oracle VM.
- In Resource Orchestrator, the following servers are referred to as SPARC Enterprise.
  - SPARC Enterprise M3000/M4000/M5000/M8000/M9000
  - SPARC Enterprise T5120/T5140/T5220/T5240/T5440
- In Resource Orchestrator, the following servers are referred to as SPARC M10.
  - SPARC M10-1/M10-4/M10-4S
- Fujitsu M10 is the product name used for SPARC M10 when they are sold outside Japan.
- References and character strings or values requiring emphasis are indicated using double quotes ( " ).
- Window names, dialog names, menu names, and tab names are shown enclosed by brackets ( [ ] ).
- Button names are shown enclosed by angle brackets (< >) or square brackets ( [ ] ).
- The order of selecting menus is indicated using [ ]-[ ] .
- Text to be entered by the user is indicated using bold text.
- Variables are indicated using italic text and underscores.
- The ellipses ("...") in menu names, indicating settings and operation window startup, are not shown.
- The ">" used in Windows is included in usage examples. When using Linux, read ">" as meaning "#".
- If using Windows 8 or Windows Server 2012, please note the following:  
Operations descriptions in this manual use examples assuming operating systems up to Windows 7 and Windows Server 2008 - if using this product with Windows 8 or Windows Server 2012, read instructions regarding the [Start] menu as if they were instructions for the [Apps] page.  
Display the [Apps] page by right-clicking in the [Start] screen, and then clicking on [All apps].
- When using Resource Orchestrator on Windows 8.1 and Windows Server 2012 R2, please note the following.  
When OS operations are explained in this manual, the examples assume OSs up to Windows 7 and Windows Server 2008. When using Resource Orchestrator on Windows 8.1 or Windows Server 2012 R2, take explanations regarding the [Start] menu as indicating the

[Apps] screen.

The [Apps] screen can be displayed by swiping the [Start] screen from bottom to top, or clicking the downward facing arrow on the lower-left of the [Start] screen.

## Menus in the ROR console

Operations on the ROR console can be performed using either the menu bar or pop-up menus.

By convention, procedures described in this manual only refer to pop-up menus.

## Regarding Installation Folder Paths

The installation folder path may be given as C:\Fujitsu\ROR in this manual.

Replace it as shown below.

- When using Windows 64-bit (x64)  
C:\Program Files (x86)\Resource Orchestrator
- When using Windows 32-bit (x86)  
C:\Program Files\Resource Orchestrator

## Command Examples

The paths used in command examples may be abbreviated. When using commands, execute them using the paths in the "Name" column in the "Reference Guide (Command) VE" and the "Reference Guide (Command/XML) CE".

## Abbreviations

The following abbreviations are used in this manual:

Abbreviation	Products
Windows	Microsoft(R) Windows Server(R) 2003 R2, Standard Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Essentials Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter Microsoft(R) Windows(R) XP Professional operating system Windows Vista(R) Business Windows Vista(R) Enterprise Windows Vista(R) Ultimate Windows(R) 7 Professional Windows(R) 7 Ultimate Windows(R) 8 Pro Windows(R) 8 Enterprise

Abbreviation	Products
	Windows(R) 8.1 Pro Windows(R) 8.1 Enterprise
Windows Server 2003	Microsoft(R) Windows Server(R) 2003 R2, Standard Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
Windows 2003 x64 Edition	Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
Windows Server 2008	Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise Microsoft(R) Windows Server(R) 2008 R2 Datacenter
Windows 2008 x86 Edition	Microsoft(R) Windows Server(R) 2008 Standard (x86) Microsoft(R) Windows Server(R) 2008 Enterprise (x86)
Windows 2008 x64 Edition	Microsoft(R) Windows Server(R) 2008 Standard (x64) Microsoft(R) Windows Server(R) 2008 Enterprise (x64)
Windows Server 2012	Microsoft(R) Windows Server(R) 2012 Standard Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Essentials Microsoft(R) Windows Server(R) 2012 R2 Standard Microsoft(R) Windows Server(R) 2012 R2 Datacenter
Windows PE	Microsoft(R) Windows(R) Preinstallation Environment
Windows XP	Microsoft(R) Windows(R) XP Professional operating system
Windows Vista	Windows Vista(R) Business Windows Vista(R) Enterprise Windows Vista(R) Ultimate
Windows 7	Windows(R) 7 Professional Windows(R) 7 Ultimate
Windows 8	Windows(R) 8 Pro Windows(R) 8 Enterprise Windows(R) 8.1 Pro Windows(R) 8.1 Enterprise
Linux	Red Hat(R) Enterprise Linux(R) AS (v.4 for x86) Red Hat(R) Enterprise Linux(R) ES (v.4 for x86) Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T) Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.5 for x86) Red Hat(R) Enterprise Linux(R) ES (4.5 for x86) Red Hat(R) Enterprise Linux(R) AS (4.5 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.5 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.6 for x86) Red Hat(R) Enterprise Linux(R) ES (4.6 for x86) Red Hat(R) Enterprise Linux(R) AS (4.6 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.6 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.7 for x86) Red Hat(R) Enterprise Linux(R) ES (4.7 for x86) Red Hat(R) Enterprise Linux(R) AS (4.7 for EM64T) Red Hat(R) Enterprise Linux(R) ES (4.7 for EM64T) Red Hat(R) Enterprise Linux(R) AS (4.8 for x86) Red Hat(R) Enterprise Linux(R) ES (4.8 for x86)

Abbreviation	Products
	<p>Red Hat(R) Enterprise Linux(R) AS (4.8 for EM64T)  Red Hat(R) Enterprise Linux(R) ES (4.8 for EM64T)  Red Hat(R) Enterprise Linux(R) 5 (for x86)  Red Hat(R) Enterprise Linux(R) 5 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.1 (for x86)  Red Hat(R) Enterprise Linux(R) 5.1 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.2 (for x86)  Red Hat(R) Enterprise Linux(R) 5.2 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.3 (for x86)  Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.4 (for x86)  Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.5 (for x86)  Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.6 (for x86)  Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.7 (for x86)  Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.8 (for x86)  Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.9 (for x86)  Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.10 (for x86)  Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64)  Red Hat(R) Enterprise Linux(R) 5.11 (for x86)  Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64)  Red Hat(R) Enterprise Linux(R) 6 (for x86)  Red Hat(R) Enterprise Linux(R) 6 (for Intel64)  Red Hat(R) Enterprise Linux(R) 6.1 (for x86)  Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64)  Red Hat(R) Enterprise Linux(R) 6.2 (for x86)  Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64)  Red Hat(R) Enterprise Linux(R) 6.3 (for x86)  Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64)  Red Hat(R) Enterprise Linux(R) 6.4 (for x86)  Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64)  Red Hat(R) Enterprise Linux(R) 6.5 (for x86)  Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64)  SUSE(R) Linux Enterprise Server 10 Service Pack 2 for x86  SUSE(R) Linux Enterprise Server 10 Service Pack 2 for EM64T  SUSE(R) Linux Enterprise Server 10 Service Pack 3 for x86  SUSE(R) Linux Enterprise Server 10 Service Pack 3 for EM64T  SUSE(R) Linux Enterprise Server 11 for x86  SUSE(R) Linux Enterprise Server 11 for EM64T  SUSE(R) Linux Enterprise Server 11 Service Pack 1 for x86  SUSE(R) Linux Enterprise Server 11 Service Pack 1 for EM64T  Oracle Enterprise Linux Release 5 Update 4 for x86 (32 Bit)  Oracle Enterprise Linux Release 5 Update 4 for x86_64 (64 Bit)  Oracle Enterprise Linux Release 5 Update 5 for x86 (32 Bit)  Oracle Enterprise Linux Release 5 Update 5 for x86_64 (64 Bit)</p>
Red Hat Enterprise Linux	<p>Red Hat(R) Enterprise Linux(R) AS (v.4 for x86)  Red Hat(R) Enterprise Linux(R) ES (v.4 for x86)  Red Hat(R) Enterprise Linux(R) AS (v.4 for EM64T)  Red Hat(R) Enterprise Linux(R) ES (v.4 for EM64T)  Red Hat(R) Enterprise Linux(R) AS (4.5 for x86)  Red Hat(R) Enterprise Linux(R) ES (4.5 for x86)</p>

Abbreviation	Products
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Abbreviation	Products
	Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.5 (for x86) Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.6 (for x86) Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.7 (for x86) Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.8 (for x86) Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.9 (for x86) Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.10 (for x86) Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64) Red Hat(R) Enterprise Linux(R) 5.11 (for x86) Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64)
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RHEL-KVM	Red Hat(R) Enterprise Linux(R) 6.1 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.1 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.2 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.2 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.3 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.3 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.4 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.4 (for Intel64) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.5 (for x86) Virtual Machine Function Red Hat(R) Enterprise Linux(R) 6.5 (for Intel64) Virtual Machine Function
Xen	Citrix XenServer(R) 5.5 Citrix Essentials(TM) for XenServer 5.5, Enterprise Edition Citrix XenServer(R) 6.0 Citrix Essentials(TM) for XenServer 6.0, Enterprise Edition Red Hat(R) Enterprise Linux(R) 5.3 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.3 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.4 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.4 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.5 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.5 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.6 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.6 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.7 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.7 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.8 (for x86) Linux Virtual Machine Function



Abbreviation	Products
	Red Hat(R) Enterprise Linux(R) 5.8 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.9 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.9 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.10 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.10 (for Intel64) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.11 (for x86) Linux Virtual Machine Function Red Hat(R) Enterprise Linux(R) 5.11 (for Intel64) Linux Virtual Machine Function
XenServer 6	Citrix XenServer(R) 6.0 Citrix Essentials(TM) for XenServer 6.0, Enterprise Edition
DOS	Microsoft(R) MS-DOS(R) operating system, DR DOS(R)
SUSE Linux Enterprise Server	SUSE(R) Linux Enterprise Server 10 Service Pack 2 for x86 SUSE(R) Linux Enterprise Server 10 Service Pack 2 for EM64T SUSE(R) Linux Enterprise Server 10 Service Pack 3 for x86 SUSE(R) Linux Enterprise Server 10 Service Pack 3 for EM64T SUSE(R) Linux Enterprise Server 11 for x86 SUSE(R) Linux Enterprise Server 11 for EM64T SUSE(R) Linux Enterprise Server 11 Service Pack 1 for x86 SUSE(R) Linux Enterprise Server 11 Service Pack 1 for EM64T
Oracle Enterprise Linux	Oracle Enterprise Linux Release 5 Update 4 for x86 (32 Bit) Oracle Enterprise Linux Release 5 Update 4 for x86_64 (64 Bit) Oracle Enterprise Linux Release 5 Update 5 for x86 (32 Bit) Oracle Enterprise Linux Release 5 Update 5 for x86_64 (64 Bit)
Solaris	Oracle Solaris10 05/09 (Update7) Media Pack Oracle Solaris11 11/11 Media Pack Oracle Solaris11.1 Media Pack
OVM for x86 3.2	Oracle VM Server for x86 v3.2.1 Oracle VM Server for x86 v3.2.2 Oracle VM Server for x86 v3.2.3 Oracle VM Server for x86 v3.2.4 Oracle VM Server for x86 v3.2.6 Oracle VM Server for x86 v3.2.7
OVM for SPARC	Oracle(R) VM Server for SPARC
SCVMM	System Center Virtual Machine Manager 2008 R2 System Center 2012 Virtual Machine Manager System Center 2012 R2 Virtual Machine Manager
VMware	VMware(R) Infrastructure 3 VMware vSphere(R) 4 VMware vSphere(R) 4.1 VMware vSphere(R) 5 VMware vSphere(R) 5.1 VMware vSphere(R) 5.5
VMware ESX	VMware(R) ESX(R)
VMware ESX 4	VMware(R) ESX(R) 4
VMware ESXi	VMware(R) ESXi(TM)
VMware ESXi 5.0	VMware(R) ESXi(TM) 5.0
VMware ESXi 5.1	VMware(R) ESXi(TM) 5.1
VMware ESXi 5.5	VMware(R) ESXi(TM) 5.5
VMware Infrastructure 3	VMware(R) Infrastructure 3
VMware Infrastructure Client	VMware(R) Infrastructure Client

Abbreviation	Products
VMware vSphere 4.0	VMware vSphere(R) 4.0
VMware vSphere 4.1	VMware vSphere(R) 4.1
VMware vSphere 5	VMware vSphere(R) 5
VMware vSphere 5.1	VMware vSphere(R) 5.1
VMware vSphere 5.5	VMware vSphere(R) 5.5
VMware vSphere Client	VMware vSphere(R) Client
VMware vCenter Server	VMware(R) vCenter(TM) Server
VMware vClient	VMware(R) vClient(TM)
VMware Horizon View	VMware Horizon View 5.2.x VMware Horizon View 5.3.x VMware Horizon 6.0 (with View)
VIOM	ServerView Virtual-IO Manager
BladeLogic	BMC BladeLogic Server Automation
ServerView Agent	ServerView SNMP Agents for MS Windows (32bit-64bit) ServerView Agents Linux ServerView Agents VMware for VMware ESX Server
Excel	Microsoft(R) Office Excel(R) 2003 Microsoft(R) Office Excel(R) 2007 Microsoft(R) Office Excel(R) 2010
Excel 2003	Microsoft(R) Office Excel(R) 2003
Excel 2007	Microsoft(R) Office Excel(R) 2007
Excel 2010	Microsoft(R) Office Excel(R) 2010
Internet Explorer	Windows(R) Internet Explorer(R) 8 Windows(R) Internet Explorer(R) 9 Windows(R) Internet Explorer(R) 10 Windows(R) Internet Explorer(R) 11
RCVE	ServerView Resource Coordinator VE
ROR	FUJITSU Software ServerView Resource Orchestrator
ROR VE	FUJITSU Software ServerView Resource Orchestrator Virtual Edition
ROR CE	FUJITSU Software ServerView Resource Orchestrator Cloud Edition
Resource Coordinator	Systemwalker Resource Coordinator
Resource Coordinator VE	ServerView Resource Coordinator VE Systemwalker Resource Coordinator Virtual server Edition
Resource Orchestrator	FUJITSU Software ServerView Resource Orchestrator

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## Issue Date and Version

Month/Year Issued, Edition	Manual Code
November 2011, First Edition	J2X1-7607-01ENZ0(00)
December 2011, Edition 1.1	J2X1-7607-01ENZ0(01)
January 2012, Edition 1.2	J2X1-7607-01ENZ0(02)
February 2012, Edition 1.3	J2X1-7607-01ENZ0(03)
March 2012, Edition 1.4	J2X1-7607-01ENZ0(04)
April 2012, Edition 1.5	J2X1-7607-01ENZ0(05)
July 2012, Second Edition	J2X1-7607-02ENZ0(00)
October 2012, Third Edition	J2X1-7607-03ENZ0(00)
December 2012, Fourth Edition	J2X1-7607-04ENZ0(00)
January 2013, Fifth Edition	J2X1-7607-05ENZ0(00)
January 2013, Edition 5.1	J2X1-7607-05ENZ0(01)
January 2013, Edition 5.2	J2X1-7607-05ENZ0(02)
June 2013, Edition 5.3	J2X1-7607-05ENZ0(03)
August 2013, Edition 5.4	J2X1-7607-05ENZ0(04)

Month/Year Issued, Edition	Manual Code
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# Contents

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Part 1 Command Reference.....	1
Chapter 1 Overview.....	2
Chapter 2 Login.....	5
2.1 rcxlogin.....	5
Chapter 3 Resource Operations.....	8
3.1 rcxadm chassis.....	8
3.2 rcxadm server.....	9
Chapter 4 Image Operations.....	22
4.1 rcxadm image.....	22
Chapter 5 Control and Environment Setup.....	29
5.1 deployment_service_uninstall.....	29
5.2 rcxadm agtctl.....	30
5.3 rcxadm authctl.....	32
5.4 rcxadm certctl.....	36
5.5 rcxadm dbctl.....	38
5.6 rcxadm deployctl.....	39
5.7 rcxadm eventctl.....	40
5.8 rcxadm imagemgr.....	42
5.9 rcxadm lanctl.....	45
5.10 rcxadm license.....	46
5.11 rcxadm mgrctl.....	47
5.12 rcxadm servermgr.....	51
5.13 rcxadm storagemgr.....	53
5.14 macbindconfig.....	55
Chapter 6 Backup and Restoration Operations for Configuration Definition Information.....	57
6.1 rcxbackup.....	57
6.2 rcxkeydefbackup.....	59
6.3 rcxkeydefrestore.....	62
6.4 rcxrestore.....	63
6.5 scwbackup.....	65
6.6 scwrestore.....	68
Index.....	71

# Part 1 Command Reference

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---

Chapter 1 Overview.....	2
Chapter 2 Login.....	5
Chapter 3 Resource Operations.....	8
Chapter 4 Image Operations.....	22
Chapter 5 Control and Environment Setup.....	29
Chapter 6 Backup and Restoration Operations for Configuration Definition Information.....	57

# Chapter 1 Overview

This chapter provides an overview of the commands available in Resource Orchestrator.

Four types of commands are available: the login command, the resource operation commands, the image operation command, and the control and environment setup commands.

- Login Command

  - rcxlogin

- Resource Operation Commands

  - rcxadm chassis

  - rcxadm server (rcxserver) (\*)

- Image Operation Command

  - rcxadm image (rcximage) (\*)

- Control and Environment Setup Commands

  - deployment\_service\_uninstall

  - rcxadm agctl

  - rcxadm authctl

  - rcxadm certctl

  - rcxadm dbctl

  - rcxadm deployctl

  - rcxadm eventctl

  - rcxadm imagemgr

  - rcxadm lanctl

  - rcxadm license

  - rcxadm mgrctl

  - rcxadm servermgr

  - rcxadm storagemgr

  - macbindconfig

- Backup and restore the configuration definition information of Resource Orchestrator Commands

  - rcxbackup

  - rcxkeydefbackup

  - rcxkeydefrestore

  - rcxrestore

  - scwbackup

  - scwrestore

\* Note: rcxserver and rcximage are abbreviated forms of the rcxadm server and rcxadm image commands. They both produce exactly the same results as their counterparts.

User accounts with administrative privileges within the operating system have access to all commands.

When using Windows, the OS administrator is an Administrator account. The rcxadm command can only be used from an Administrator account.

For user accounts that do not have administrative privileges within the operating system, it is necessary to first log into Resource Orchestrator as a privileged user with the login command. This will grant access to the resource operation, control and environment setup (only rcxadm mgrctl snap -all), and image operation command.

For details on privileged users, refer to "Chapter 5 Managing User Accounts" in the "User's Guide VE".

The table below lists the permissions required to execute each command depending on the server on which they are executed.

Table 1.1 List of Commands

Command	Function		Required Privileges		Location	
			OS Administrator	Resource Orchestrator Privileged User	Admin Server	Managed Server
<a href="#">deployment_service_uninstall</a>	Uninstallation of the related services		Yes	-	Yes	Yes
<a href="#">rcxadm agtctl</a>	Agent control		Yes	-	No	Yes
<a href="#">rcxadm authctl</a>	User authentication directory service operations		Yes	-	Yes	No
<a href="#">rcxadm certctl</a>	SSL certificate operations		Yes	-	Yes	Yes
<a href="#">rcxadm chassis</a>	Chassis power control		- (*)	Yes	Yes	No
<a href="#">rcxadm dbctl</a>	Management of the database for Resource Orchestrator		Yes	-	Yes	-
<a href="#">rcxadm deployctl</a>	Encryption of license information definition files		Yes	-	No	Yes
<a href="#">rcxadm eventctl</a>	Event control		- (*)	Yes	Yes	No
<a href="#">rcxadm image</a>	Image operations (backup and restore, cloning)		- (*)	Yes	Yes	No
<a href="#">rcxadm imagemgr</a>	Image management settings		Yes	-	Yes	No
<a href="#">rcxadm lanctl</a>	Network parameter configuration		Yes	-	No	Yes
<a href="#">rcxadm license</a>	License control		Yes	Yes	Yes	No
<a href="#">rcxadm mgrctl</a>	Manager control	"snap -all"	- (*)	Yes	Yes	No
		All except "snap -all"	Yes	-		
<a href="#">rcxadm server</a>	Managed server control		- (*)	Yes	Yes	No
<a href="#">rcxadm servermgr</a>	Server management software operations					
<a href="#">rcxadm storagemgr</a>	ESC registration and deletion		- (*)	Yes	Yes	No
<a href="#">macbindconfig</a>	Bind settings for MAC addresses		Yes	-	No	Yes
<a href="#">rcxbackup</a>	Backup of configuration definition information		Yes	Yes	Yes	No
<a href="#">rcxkeydefbackup</a>	Backup of other definition and management information		Yes	Yes	Yes	No
<a href="#">rcxkeydefrestore</a>	Restoration of other definition and management information		Yes	Yes	Yes	No
<a href="#">rcxlogin</a>	Logs in to Resource Orchestrator		-	-	Yes	No
<a href="#">rcxrestore</a>	Restoration of configuration definition information		Yes	Yes	Yes	No
<a href="#">scwbackup</a>	Backup of image files		Yes	Yes	Yes	No
<a href="#">scwrestore</a>	Restoration of image files		Yes	Yes	Yes	No

Yes: Can be used

No: Cannot be used

-: Not required



\* Note: This command can also be executed by a user with administrative privileges within the operating system. However, if the same user executes this command after logging into Resource Orchestrator, the operating system privileges will be replaced by Resource Orchestrator privileges. To use this command when logged into Resource Orchestrator, administrative privileges for Resource Orchestrator are required.

## Information

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- Executing privileged commands within a script requires the user to be logged in with administrative privileges within the operating system. Otherwise, the `rcxlogin -save` command should first be run to grant access to privileged commands from scripts. Refer to "2.1 `rcxlogin`" for details.
  - If, in Windows Server 2008 or later, a user account with administrative privileges that does not have the user ID "Administrator" starts up a command prompt from the menu, commands executed in that prompt cannot be executed with administrative privileges. Right-click the command prompt in the menu, select [Run as administrator] from the displayed menu to start up the command prompt, and run the required command from there.
- 

## Point

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Commands available on the admin server are all located under the following folder.

[Windows Manager]

- `Installation_folder\SVROR\Manager\bin`

In Systemwalker Resource Coordinator VE V13.2 and VE V13.3, when using commands under the following folder within the created batch file, they must be changed to the specified folders, because the folder configuration for Resource Orchestrator is different.

- `Installation_folder\Site Manager\opt\FJSVrcxmr\bin`

[Linux Manager]

- `/opt/FJSVrcvnr/bin`
-

# Chapter 2 Login

This chapter explains the command used to log in to Resource Orchestrator.

## 2.1 rcxlogin

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxlogin - Logs in to Resource Orchestrator

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxlogin - Logs in to Resource Orchestrator

### Format

```
rcxlogin [-save] user_name
```

### Description

rcxlogin is the command used to authenticate users in Resource Orchestrator.

If you are using commands for which administrative privileges are required, first use this command to log in as a user with administrative privileges.

If a user already has administrative privileges within the operating system, it is not necessary for that user to execute this command in order to use Resource Orchestrator commands.

*user\_name*

Specify a user ID that has been registered in Resource Orchestrator. You will then be asked to enter the password of the specified user.

If the correct password is entered, a new command prompt will be displayed showing that the authentication succeeded.

If an invalid password or user ID is entered, an error message is displayed.

To log off, execute the exit command. To log in as a different user without logging off, re-execute the rcxlogin command.

### Option

-save (optional)

Saves the entered password. This password is remembered only for the user account (within the operating system) used to execute this command. Once a password has been saved for a given user account, this command can then be executed from the same account without being asked for a password again.

Saving the password also allows scripts to use commands for which administrative privileges are required.

Refer to "Automation Using Scripts" in the "Examples" section for details.



- Saving the password makes it possible to log in to Resource Orchestrator just by logging in to the operating system user account for which the password was saved. When using this function, ensure that strict control is exercised over this user account on the admin server.
- In a clustered manager configuration, use the following procedure to save the password on both the primary and secondary cluster nodes.

[Windows Manager]

1. Start the cluster service on the primary node.

In the Failover Cluster Management tree, right-click [RC-manager] under [Services and Applications], and select [Bring this service or application online] from the popup menu.

Confirm that all resources are turned online.

2. Run the `rcxlogin -save user_name` command on the primary node.
3. Move the manager "service or application" to the secondary node.  
Confirm that all resources are turned online on the secondary node.
4. Run the `rcxlogin -save user_name` command on the secondary node.
5. Move the manager "service or application" back to the primary node.  
Confirm that all resources are turned online on the primary node.

[Linux Manager]

1. Start the cluster service on the primary node.  
Use the cluster system's operation management view (Cluster Admin) and start the cluster service of the manager.  
Confirm that all resources are turned online.
2. Run the `rcxlogin -save user_name` command on the primary node.
3. Use the cluster system's operation management view (Cluster Admin) and switch to the secondary node.  
Confirm that all resources are turned online on the secondary node.
4. Run the `rcxlogin -save user_name` command on the secondary node.
5. Use the cluster system's operation management view (Cluster Admin) and switch to the primary node.  
Confirm that all resources are turned online on the primary node.

For a user account with OS administrative privileges, Resource Orchestrator commands can be executed freely without needing to save a password first.



## Requirements

### Permissions

Not required.

### Location

Admin server

## Examples

- Logging in Using Password Authentication

```
>rcxlogin userA <RETURN>
Password: password <RETURN>
```

- Automation Using Scripts

To use commands requiring administrative privileges from within a script, thus allowing automated calls from external products, the user account's password must be registered in advance using the `rcxlogin -save` command.

Within the script, the `RCX_USER` environment variable must be defined and set to the user ID of the account for which the password was saved.

Once this variable is properly set, Resource Orchestrator commands can be executed using the previously saved password.

## Note

The script must be executed by the operating system user account that was used to save the password on the admin server.

## Example

Script (batch file) content:

[Windows Manager]

```
@echo off

set RCX_USER=userA
rem Write down commands that can be run with userA's privileges.
Installation_folder\SVROR\Manager\bin\rcxserver stop -name svr0001 -force
Installation_folder\SVROR\Manager\bin\rcxserver start -name svr0002
...
```

[Linux Manager]

```
#!/bin/sh

RCX_USER=userA
export RCX_USER
# Write down commands that can be run with userA's privileges.
/opt/FJSVrcvmr/bin/rcxserver stop -name svr0001 -force
/opt/FJSVrcvmr/bin/rcxserver start -name svr0002
...
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

# Chapter 3 Resource Operations

This chapter explains the commands used to manage resources in Resource Orchestrator.

## 3.1 rcxadm chassis

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm chassis - Chassis power control

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm chassis - Chassis power control

### Format

```
rcxadm chassis start -name resource [-nowait]
```

```
rcxadm chassis stop -name resource [-nowait] [-force]
```

### Description

rcxadm chassis is the command used to power on or power off a blade chassis.

This function can only be used with chassis for PRIMERGY BX servers.

### Subcommands

start

Powers on the target chassis.

stop

Powers off the target chassis.

### Options

-name *resource*

Specify the name of the target chassis in *resource*.

-nowait (optional)

Use this option to return directly to the command prompt without waiting for the command to complete its execution.

**Specify the following options when using the stop subcommand:**

-force (optional)

Use this option to forcibly stop a chassis.

### Requirements

Permissions

One of the following permissions is required:

- OS Administrator
- Resource Orchestrator Privileged User

## Location

Admin server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.



### Note

- When powering off a chassis, all management blades contained in the target chassis will be gracefully shut down. This function requires ServerView Agents to be installed on all server blades in the chassis.
- After starting a chassis, it may take some time until it is possible to power on server blades. When powering on server blades after starting a chassis, please wait several minutes before doing so.
- Server blade BIOS settings can be configured to automatically start up when powering on the chassis. Refer to the server blade manual for details about such settings.

## 3.2 rcxadm server

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm server - Managed server operations

[Linux Manager]

*/opt/FJSVrcvmr/bin/rcxadm server* - Managed server operations

### Format

```
rcxadm server start -name resource [-nowait]
rcxadm server stop -name resource [-force] [-nowait]
rcxadm server restart -name resource [-force] [-nowait]
rcxadm server switchover -name resource [-spare spare_server] [-nowait]
rcxadm server failback -name resource [-nowait]
rcxadm server takeover -name resource [-nowait]
rcxadm server list [{"-type {physical|vmguest [-server_role]|all [-server_role]}] | [-spare] | [-bootagt] | [-target_disk]} ]
rcxadm server migrate -name guest_name -to vmhost [-mode {live|cold}] [-nowait]
rcxadm server migrate -home [-name vmhost] [-nowait]
rcxadm server set -name resource -attr vmm_mode={maintenance|active}
rcxadm server set -name resource -attr {vmm_mode={maintenance|active}|vmware.maintenance={maintenance|active}} [VMware]
rcxadm server set -name resource -attr vmm_mode={maintenance|active|maintenance_with_move} [Hyper-V] [Citrix Xen]
rcxadm server set -name resource -attr bootagt={dos|winpe}
rcxadm server set -name resource -attr server_role={none|manager}
rcxadm server set -name resource -attr target_disk=di sk_number
rcxadm server unset -name resource -target_disk
```

```
rcxadm server show -name resource -disk
rcxadm server collect -name resource -disk [-nowait]
rcxadm server backup -name resource -attr os=solaris [SPARC M10]
```

## Information

rcxserver is an abbreviated form of the rcxadm server command. Both forms provide the same subcommands and options, and produce the same results.

## Point

[VMware]

VM host's VM maintenance mode can set using one of the following methods.

- a. rcxadm server set -name resource -attr vmm\_mode=maintenance|active
- b. rcxadm server set -name resource -attr vmware.maintenance=maintenance|active

Method b. is only supported only for compatibility purposes with ServerView Resource Coordinator VE V2.1.0.

As future versions may not support this method, it is recommended to use method a. instead.

## Description

rcxadm server is the command used to control server resources. This function provides the following functionality:

- Display of server statuses (physical OS, VM host, or VM guest)
- Startup, shutdown, or restart of a designated server (physical server, physical OS, VM host, or VM guest)
- Switchover, failback, or takeover of a designated server (physical OS or VM host)
- VM guest migration
- VM maintenance mode settings for VM hosts
- Migration to VM Home Position
- Change the boot agent of the specified server (physical server)
- Collection and display of the disk information of the specified server (physical server)
- Configure and display of the image operation of the target disk of the specified server (physical server)
- Save the OVM for SPARC's configuration information as a XML file
- Server role settings for VM guest

When stopping or restarting a VM host, any VM guests that are running will also be stopped.

Verify that stopping the affected VM guests will not cause any problems before stopping or restarting a VM host.

For details on the switchover, failback and takeover operations, refer to "Chapter 18 Server Switchover Settings" in the "User's Guide VE".

For details on VM guest migrations, refer to "15.1 Migration of VM Guests between Servers" in the "User's Guide VE".

For details on VM maintenance mode settings, refer to "15.2 VM Maintenance Mode of VM Hosts" in the "User's Guide VE".

About the VMguest's server role setting, please refer to "9.9 Server Role Modification" in the "User's Guide VE".

## Subcommands

start

Starts the target server (physical server, physical OS, VM host, or VM guest).

stop

Stops the target server (physical server, physical OS, VM host, or VM guest).

**restart**

Restarts the target server (physical server, physical OS, VM host, or VM guest).

**switchover**

Switches over the target server (physical OS or VM host) with one of its spare servers.

**fallback**

Switches back a server in switchover state (physical OS or VM host). The spare server that was switched over with is stopped, and the operating system will be restarted on the primary server.

**takeover**

Sets a post-switchover configuration as final, and allows the spare server to take over the role of the original primary server (physical OS or VM host). After takeover, both servers exchange their roles: the original spare server becomes the new primary server, while the original primary server becomes the new spare server.

**list**

Displays all registered servers (physical OS's, VM hosts, and VM guests).

The following properties are displayed for each server (when no options are specified).

Item Name	Description
PHYSICAL_SERVER	Physical server name
SERVER	Server name (physical OS or VM host)
ADMIN_IP	Admin LAN IP address
STATUS	<p>Server status</p> <p>Displays one of the following:</p> <ul style="list-style-type: none"> <li>- normal</li> <li>- warning</li> <li>- unknown</li> <li>- stop</li> <li>- error</li> <li>- fatal</li> </ul> <p>For an explanation of possible server statuses, refer to "11.2 Resource Status" in the "Operation Guide VE".</p>
MAINTENANCE	<p>Current maintenance mode</p> <ul style="list-style-type: none"> <li>- If maintenance mode is set "ON" is displayed.</li> <li>- If maintenance mode is not set "OFF" is displayed.</li> </ul> <p>For details on the maintenance mode, refer to "Appendix C Maintenance Mode" in the "User's Guide VE".</p>

**migrate**

Migrates a VM guest to a VM host on a different physical server.

**set**

Sets or releases VM maintenance mode for a given VM host.

Change the boot agent used when manipulating images.

Set the VMguest's server role.



Configures the image operation target disk.

unset

Releases the configuration of the image operation target disk.

show

Displays the information of a disk on which image operations can be performed.

collect

Collects the information of a disk on which image operations can be performed.

Restarts the target server (physical server, physical OS, VM host, or VM guest) to acquire the disk information.

backup

Save the OVM for SPARC's configuration information as a XML file. While the power source is ON, and, server status is normal, the configuration information can be saved as a XML file.

XML files of OVM configuration information are saved in the following location on the control domain.

Storage Location of Saved Files

[Control Domain]

/etc/opt/FJSVrcvat/config

Definition File Name

ovm\_config.xml

## Options

**The following option can be specified for subcommands other than the list subcommand:**

-name *resource*

Specify the name of the target server in *resource*.

**When specifying other than list, set, unset, or show, the following options can be specified.**

-nowait (optional)

Use this option to return directly to the command prompt without waiting for the command to complete its execution.

**The following option can be specified for the stop and restart subcommands:**

-force (optional)

Use this option to forcibly stop or restart a server without shutting down its operating system.

**The following option can be specified for the switchover subcommand:**

-spare *spare\_server* (optional)

This defines the spare server (physical server) to be switched over with. If omitted, an appropriate server will be automatically selected from the list of spare servers already assigned to the target server.

**The following options can be specified for the list subcommand:**

-type {physical|vmguest [-server\_role]][all [-server\_role]] (optional)

This defines the type of server (physical servers, VM guests, all servers) to be listed up.

The following properties are displayed for each server. The option column shows the relationship between displayed properties and the option given in -type ("always" in the table below designates properties that are always displayed, independently from the option given in -type).

Item Name	Description	Options
PHYSICAL_SERVER	Physical server name	always
SERVER	Server name (for a Physical OS, VM host, or VM guest)	always
TYPE	<p>Server type</p> <p>Displays one of the following:</p> <ul style="list-style-type: none"> <li>- native Physical OS</li> <li>- vm_host VM host</li> <li>- vm_guest VM guest</li> </ul>	<p>physical</p> <p>all</p>
VM_HOST	<p>VM host name</p> <p>For a VM guest, this shows the name of the VM host on which this VM guest operates.</p>	<p>vmguest</p> <p>all</p>
ADMIN_IP	Admin LAN IP address	always
STATUS	<p>Server status</p> <p>Displays one of the following:</p> <ul style="list-style-type: none"> <li>- normal</li> <li>- warning</li> <li>- unknown</li> <li>- stop</li> <li>- error</li> <li>- fatal</li> </ul> <p>For an explanation of possible server statuses, refer to "11.2 Resource Status" in the "Operation Guide VE".</p>	always
MAINTENANCE	<p>Current maintenance mode</p> <ul style="list-style-type: none"> <li>- If maintenance mode is set "ON" is displayed.</li> <li>- If maintenance mode is not set "OFF" is displayed.</li> </ul> <p>For details on the maintenance mode, refer to "Appendix C Maintenance Mode" in the "User's Guide VE".</p>	<p>physical</p> <p>all</p>
SERVER_ROLE	<p>VMguest's server role</p> <p>Either of the following contents will be displayed.</p> <ul style="list-style-type: none"> <li>- none Server role has not been setted.</li> <li>- manager "Manager" has been setted in server role.</li> <li>- - "- " will display when the resource is not vmguest.</li> </ul>	<p>vmguest - server_role</p> <p>all - server_role</p>

-spare (optional)

When using spare servers, this shows the spare server(s) (physical server) assigned to each server.  
The following properties are displayed for each server.

Item Name	Description
SERVER	Server name (physical OS or VM host)
PRIMARY	Primary server Name of the physical server that will be switched over with a spare server during a server switchover.
SPARE	Spare server Name of the spare server (switchover destination) assigned to the primary server. If multiple spare servers are assigned, the name of each spare server is displayed using commas (",") as a delimiters.
VLAN_SWITCH (*)	Network reconfiguration flag This flag defines whether network settings will be reconfigured during a server switchover. <ul style="list-style-type: none"> <li>- When network settings are reconfigured during server switchover "ON" is displayed.</li> <li>- When network settings are not reconfigured during server switchover "OFF" is displayed.</li> </ul>
AUTO_SWITCH	Auto-Recovery flag This flag defines whether Auto-Recovery is enabled. <ul style="list-style-type: none"> <li>- When Auto-Recovery is enabled "ON" is displayed.</li> <li>- When Auto-Recovery is not enabled "OFF" is displayed.</li> </ul>
ACTIVE	Active server Displays the name of the currently active physical server.
SWITCHOVER_STATE	Switchover state Displays the current switchover state. Displays one of the following: <ul style="list-style-type: none"> <li>- normal Normal status (There are no switchover, failback, or takeover operations in progress).</li> <li>- switchover running A switchover operation is in progress.</li> <li>- switchover completed A switchover operation has been completed.</li> <li>- failback running A failback operation is in progress.</li> <li>- takeover running A takeover operation is in progress.</li> </ul>

\* Note: When a LAN switch blade is in IBP mode or Converged Fabric mode, the details of settings are displayed in this parameter.

-bootagt (optional)

Displays the information about the boot agent used when manipulating images.  
The following properties are displayed for each server.

Item Name	Description
PHYSICAL_SERVER	Physical server name
BOOT_AGENT	Set boot agent Displays one of the following: - DOS - Windows PE

- target\_disk (optional)

Displays the information related to the image operation target disk.  
The following properties are displayed for each server.

Item Name	Details
PHYSICAL_SERVER	Physical server name
DISK_NUMBER	Disk number of the configured image operation target disk - When the image operation target disk is already configured "An integer equal to or greater than 1" is displayed. - When the image operation target disk is not configured "- " is displayed. - When the image operation target disk is already configured, and its information cannot be confirmed in the latest disk information "(lost)" is displayed.
DISK_SIZE	Size of the image operation target disk - When the image operation target disk is already configured The size in megabytes is displayed. - When the image operation target disk is not configured "- " is displayed.
PARTITION_COUNT	Number of partitions that exist on the image operation target disk - When the image operation target disk is already configured The number of partitions is displayed. - When the image operation target disk is not configured "- " is displayed.

- When disk information collection, image operations, or switchover using the backup and restore method is performed, the values of DISK\_NUMBER may be modified based on the latest disk recognition order acquired by Resource Orchestrator.
- When disks that are the targets of operations cannot be checked, image operations are determined to be invalid by the pre-operation check of Resource Orchestrator, and the image operations cannot be performed. Perform collection of the disk information and configuration of the image operation target disk again.
- When using this option, if the physical server is a SPARC Enterprise, the information is not output in the list.

**The following options can be specified for the migrate subcommand:**

**-name** *guest\_name*

Specify the name of the destination target VM guest in *guest\_name*.

**-to** *vmhost*

Specify the name of the destination VM host in *vmhost*.

**-mode** {live|cold} (optional)

The type of migration method to perform is given for mode.

Depending on the power state of the VM guest to migrate, only one of those types may be available. When omitted, the appropriate type will be chosen depending on the state of the VM guest.

The following values can be specified.

**live**

Performs a live migration: migration of an active (powered-on) VM guest.

**cold**

Performs a cold migration: migration of an inactive (powered-off) VM guest.

The power status of the VM guest after migration will be the same as it was before migration.

[KVM]

The migration might fail when "- mode cold" is specified in the migration from the state of power supply ON.

Power supply ON after the migration is executed after power supply OFF, and it waits for a while.

**-home**

Specify when performing migration to the VM Home Position.

**-name** *vmhost* (optional)

Specify the name of the operation target VM host in *vmhost*.

**The following options can be specified for the set subcommand:**

**-attr** vmm\_mode=maintenance

**-attr** vmware.maintenance =maintenance [VMware]

Sets or releases VM maintenance mode for the target VM host.

**-attr** vmm\_mode=active

**-attr** vmware.maintenance =active [VMware]

Releases VM maintenance mode for the target VM host.

**-attr** vmm\_mode=maintenance\_with\_move [Hyper-V] [Citrix Xen]

Sets VM maintenance mode for the target VM host. And migrates the VM guest.

**-attr** bootagt={dos|winpe}

Changes the boot agent used when manipulating images to DOS or Windows PE.

When the managed server has the following configuration, this option must be specified before manipulating images to change the boot agent settings.

- SAN data environments using a built-in disk boot, and a physical WWN or VIOM, must be converted to DOS.
- When using the Red Hat Enterprise Linux 6 ext4 file system and one of the following conditions applies, it needs to be changed to Windows PE.
  - SAN boot environment using HBA address rename
  - Rack mount or tower servers have been registered with "Disabled" selected for "Association with server management software (ServerView)"

- In a SAN boot environment using HBA address rename and where the following model or OS is used, it needs to be changed to Windows PE.
  - PRIMERGY BX960 S1
  - XenServer6 or later

This option cannot be specified for the following models:

- SPARC M10/SPARC Enterprise
- PRIMEQUEST

**-attr server\_role={none|manager}**

Set the VMguest's server role.

When ROR manager is running on the VMguest, set "manager" to guard the operations which will stop ROR manager.

In this way to prevent ROR manager from stopping by incorrect operations.

**-attr target\_disk=disk\_number**

Specify the disk number configured as the target disk of the image operation in *disk\_number*.

An integer larger than 1 can be specified for the disk number.

Output the rcxadm server show -name *resource* -disk command to check the disk number which can be specified.

When using this option, it is only possible to specify the disk number of a physical server for which the disk information has been acquired in advance by execution of the rcxadm server collect -name *resource* -disk command.

When a backup of an admin server is restored, the actual disk configuration and the disk information may not match. Perform collection of the disk information and configuration of the image operation target disk again.

**The following options can be specified for the unset subcommand:**

**-target\_disk**

Deletes the configuration of the image operation target disk for the specified server.

**The following options can be specified for the show subcommand:**

**-disk**

When the server is a physical server for which the disk information has already been acquired, the following information is displayed.

- Number of disks (Number of Disk: 0 or larger)
- Disk number (Equal to the number of disks, 1 or larger)
- Disk name (Hardware display name)
- Disk size unit: MByte
- Number of partitions
- Partition number (Equal to the number of partitions, 1 or larger)
- Partition type  
(One of PRIMARY, EXTENDED, LOGICAL, ESP, MSR, DATA, LINUXSWAP, WINRE, or UNKNOWN)
- File systems of partitions  
(One of FAT12, FAT16, NTFS, FAT32, LINUXSWAP, EXT2, EXT3, EXT4, DISKDUMP, REISERFS, VMFS, EXTENDED, or UNKNOWN)
- Partition size
- Usage area of partitions

When the disk information has not been acquired, no value is displayed.

**The following options can be specified for the collect subcommand:**

**-disk**

When a physical server is in the following configuration, it is necessary to acquire and configure the information of disks for which image operations are possible before starting image operations.

- When using a SAN data disk environment with a built-in disk boot

This option can only be executed while the physical server is in maintenance mode, and stopped. Start the physical server to acquire the disk information from, and stop it after acquiring the disk information.

When performing update of a physical server for which the disk information has already been acquired, save the disk information acquired during the latest update.

This option cannot be specified for the following models:

- SPARC Enterprise

**While appointing to backup, the following options can be appointed.**

**-name resource**

Appoint the VMhost(control domain) name.

**-attr os=solaris**

Set object OS in Solaris.

**Requirements**

**Permissions**

One of the following permissions is required:

- OS Administrator
- Resource Orchestrator Privileged User

**Location**

Admin server

**Examples**

- To display a list of registered servers and their properties

```
>rcxadm server list <RETURN>
PHYSICAL_SERVER  SERVER          ADMIN_IP        STATUS          MAINTENANCE
-----
blade01          WebServer01     192.168.1.4    normal         ON
rackserver01     AppServer01     192.168.1.2    normal         OFF
rackserver02     DBServer01      192.168.1.6    stop           OFF
rackserver03     DBServer02      192.168.1.7    normal         ON
```

- To display spare server settings

```
>rcxadm server list -spare <RETURN>
SERVER           PRIMARY         SPARE           VLAN_SWITCH     AUTO_SWITCH     ACTIVE
SWITCHOVER_STATE
-----
Server1          blade1-1       blade1-9        ON              ON              blade1-9
failback running
```

Server2	blade1-2	blade1-9,blade1-10	OFF	ON	blade1-2
normal					

- To display a list of physical servers (including physical OS's and VM hosts)

```
>rcxadm server list -type physical <RETURN>
PHYSICAL_SERVER  SERVER      TYPE      ADMIN_IP      STATUS  MAINTENANCE
-----
blade1-1         Server1     native    192.168.3.121 stop    ON
blade1-10        -          -         192.168.3.130 stop    -
blade1-2         Server2     native    192.168.3.122 normal  OFF
blade1-3         Server3     native    192.168.3.123 stop    ON
blade1-5         Server5     native    192.168.3.125 normal  ON
blade1-7         vmesx1     vm_host   192.168.3.127 normal  OFF
blade1-8         Server8     native    192.168.3.128 normal  OFF
blade1-9         -          -         192.168.3.129 stop    -
```

- To display a list of VM guests

```
>rcxadm server list -type vmguest <RETURN>
PHYSICAL_SERVER  SERVER  VM_HOST  ADMIN_IP      STATUS
-----
blade1-7         vm-1    vmesx1   192.168.3.127 normal
blade1-7         vm-2    vmesx1   192.168.3.127 normal

>rcxadm server list -type vmguest -server_role <RETURN>
PHYSICAL_SERVER  SERVER  VM_HOST  ADMIN_IP      STATUS  SERVER_ROLE
-----
blade1-7         vm-1    vmesx1   192.168.3.127 normal  manager
blade1-7         vm-2    vmesx1   192.168.3.127 normal  none
```

- To display a list of all server resources (including physical OS's, VM hosts, and VM guests)

```
>rcxadm server list -type all <RETURN>
PHYSICAL_SERVER  SERVER      TYPE      VM_HOST  ADMIN_IP      STATUS  MAINTENANCE
-----
blade1-1         Server1     native    -        192.168.3.121 stop    ON
blade1-10        -          -         -        192.168.3.130 stop    -
blade1-2         Server2     native    -        192.168.3.122 normal  OFF
blade1-3         Server3     native    -        192.168.3.123 stop    ON
blade1-5         Server5     native    -        192.168.3.125 normal  ON
blade1-7         vmesx1     vm_host   -        192.168.3.127 normal  OFF
blade1-7         vm-1       vm_guest  vmesx1   192.168.3.127 normal  OFF
blade1-7         vm-2       vm_guest  vmesx1   192.168.3.127 normal  OFF
blade1-8         Server8     native    -        192.168.3.128 normal  OFF
blade1-9         -          -         -        192.168.3.129 stop    -
sparcm10-1      ovm        vm_host   -        192.168.3.131 normal  OFF
sparcm10-1      ovm-1     vm_guest  ovm      192.168.3.131 normal  OFF
sparcm10-1      ovm-2     vm_host   ovm      192.168.3.132 normal  OFF
sparcm10-1      ovm-2-1   vm_guest  ovm-2    192.168.3.132 normal  OFF

>rcxadm server list -type all -server_role <RETURN>
PHYSICAL_SERVER  SERVER      TYPE      VM_HOST  ADMIN_IP      STATUS  MAINTENANCE  SERVER_ROLE
-----
blade1-1         Server1     native    -        192.168.3.121 stop    ON           -
blade1-10        -          -         -        192.168.3.130 stop    -           -
blade1-2         Server2     native    -        192.168.3.122 normal  OFF         -
blade1-3         Server3     native    -        192.168.3.123 stop    ON           -
blade1-5         Server5     native    -        192.168.3.125 normal  ON           -
```



bladel-7	vmesx1	vm_host	-	192.168.3.127	normal	OFF	-
bladel-7	vm-1	vm_guest	vmesx1	192.168.3.127	normal	OFF	manager
bladel-7	vm-2	vm_guest	vmesx1	192.168.3.127	normal	OFF	none
bladel-8	Server8	native	-	192.168.3.128	normal	OFF	-
bladel-9	-	-	-	192.168.3.129	stop	-	-
sparcm10-1	ovm	vm_host	-	192.168.3.131	normal	OFF	-
sparcm10-1	ovm-1	vm_guest	ovm	192.168.3.131	normal	OFF	none
sparcm10-1	ovm-2	vm_host	ovm	192.168.3.132	normal	OFF	-
sparcm10-1	ovm-2-1	vm_guest	ovm-2	192.168.3.132	normal	OFF	none

- To migrate an active VM guest

```
>rcxadm server migrate -name vm_guest01 -to vm_host02 -mode live <RETURN>
```

- To migrate an inactive VM guest

```
>rcxadm server migrate -name vm_guest01 -to vm_host02 -mode cold <RETURN>
```

- When displaying the information for the current boot agent

```
>rcxadm server list -bootagt <RETURN>
PHYSICAL_SERVER  BOOT_AGENT
-----
bladel-1         DOS
bladel-10        Windows PE
bladel-2         DOS
```

- When displaying the information of a disk on which image operations can be performed

```
>rcxadm server show -name bladel-1 -disk <RETURN>
Number of Disk: 2

Disk Number: 1
  Disk Name: FUJITSU MBD2300RC SCSI Disk Device
  Disk Size: 1902400
  Number of Partition: 2

  Partition Number: 1
    Partition Type: PRIMARY
    Partition Filesystem: EXT3
    Partition Size: 1002400
    Partition Usage: 81000

  Partition Number: 2
    Partition Type: LOGICAL
    Partition Filesystem: EXT3
    Partition Size: 900000
    Partition Usage: 7500

Disk Number: 2
  Disk Name: FUJITSU ETERNUS_DXL SCSI Disk Device
  Disk Size: 100000
  Number of Partition: 1

  Partition Number: 1
    Partition Type: EXTENDED
    Partition Filesystem: EXT3
    Partition Size: 100000
    Partition Usage: 30000
```

- When displaying the information of disk configured as the image operation target

```
>rcxadm server list -target_disk <RETURN>
PHYSICAL_SERVER  DISK_NUMBER  DISK_SIZE      PARTITION_COUNT
-----
blade1-1         1            83710          0
blade1-10        -            -              -
blade1-2         2            23014000       13
blade1-3         (lost)       234700         3
```

- While saving OVM for SPARC's configuration information as a XML file

```
>rcxadm server backup -name m10-4s-1 -attr os=solaris <RETURN>
```

**Exit Status**

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

 **Note**

- A VM guest can be configured to automatically start or stop whenever its VM host starts up or shuts down. This can be achieved by setting up the VM guest's startup and shutdown options in the server virtualization software used. For more information, please refer to the server virtualization software manual.
- As a result of power operation being performed on a VM guest, an error may occur if the VM guest is moved to another VM host and processes executed. Refer to "D.3 Functional Differences between Products" in the "Design Guide VE" for details.
- VM guests should be properly configured in order to use the "stop" or "restart" subcommands. Stopping or restarting a VM guest that was not properly configured will result in an error unless the -force option is specified. Refer to "D.2 Configuration Requirements" in the "Design Guide VE" for details.
- For PRIMEQUEST servers, the warning message will not be displayed, even if there is a chance that the switchover will not be correctly performed using Reserved SB settings.
- If ServerView Deployment Manager is used on the admin LAN, the switchover and failback subcommands cannot be used if the managed servers match any of the following conditions. For more details, please refer to "Appendix B Co-Existence with ServerView Deployment Manager" in the "Setup Guide VE".
  - Servers in local boot environments
  - Servers in SAN boot environments without VIOM profiles
- The changes to the boot agent are valid while the physical server is registered. After reregistering the physical server, change the boot agent using the command if necessary.

# Chapter 4 Image Operations

This chapter explains the commands used to operate images managed in Resource Orchestrator.

## 4.1 rcxadm image

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm image - system or cloning image operations of servers

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm image - system or cloning image operations of servers

### Format

```
rcxadm image backup -server resource [-comment comment] [-nowait] [-force]
rcxadm image restore -server resource [-version version] [-nowait]
rcxadm image create -server resource -name image [-comment comment] [-nowait]
rcxadm image deploy -server resource [:hostname][,resource[:hostname]]... -name image [-version
version] [-nowait]
rcxadm image delete -server resource -version version
rcxadm image delete -name image -version version
rcxadm image list -type {backup|cloning} {[-server resource]|[-name image]}
rcxadm image list -server [resource]
```



### Information

rcximage is an abbreviated form of the rcxadm image command. Both forms provide the same subcommands and options, and produce the same results.



### Point

A list of system images can be obtained using one of the following two methods.

- a. **rcxadm image list -type backup [-server resource]**
- b. **rcxadm image list -server [resource]**

Method b. is only supported only for compatibility purposes with Systemwalker Resource Coordinator Virtual Server Edition V13.2.0 and V13.3.0. As future versions may not support this method, it is recommended to use method a. instead.

### Description

rcxadm image is the command used to perform operations involving system images and cloning images.

Backup and restore operations are done by collecting a system image from a managed server (physical OS or VM host) and storing it on the admin server disk. This system image can later be restored to the same managed server.

Cloning is done by collecting a cloning image from a reference server, and storing it on the admin server disk. Cloning images can later be distributed to other servers (either individually or simultaneously to multiple servers). All image operations (backup, restore, and cloning) are performed remotely over the network.

Before using this command, refer to the overview and sections about each operation mentioned in the following manuals.

- "Chapter 16 Backup and Restore" in the "User's Guide VE"
- "Chapter 17 Cloning [Physical Servers]" in the "User's Guide VE"

If any one of the "backup", "restore", "create", or "deploy" subcommands is executed, the target server is automatically placed into maintenance mode until processing completes. Once complete, the server is set back to its original mode.

## Note

- The number of cloning image versions that can be kept for a given cloning image (identified by its name attribute) is limited. Using the create subcommand to collect a new cloning image when the limit has already been reached will fail and display an error. In such a case, use the delete subcommand to delete one of the existing versions before collecting a new version of the cloning image. Existing versions can be checked using the list subcommand. By default, this limit is set to 3 versions per cloning image. For details on changing the maximum number of cloning image versions, refer to "8.4 Changing the Maximum Number of Cloning Image Versions" in the "User's Guide VE".
- This command is not available if ServerView Deployment Manager is used on the admin LAN. For more details, please refer to "Appendix B Co-Existence with ServerView Deployment Manager" in the "Setup Guide VE".

## Subcommand

### backup

Backs up a system image from the specified server (physical OS or VM host) to the admin server.

### restore

Restores a system image to the specified server (physical OS or VM host).

### create

Collects a cloning image from the specified server (physical OS).

### deploy

Deploys a cloning image to one or multiple servers (physical OS).

### delete

- System image deletion  
Deletes a system image belonging to the specified server (physical OS or VM host).
- Cloning image deletion  
Deletes the specified cloning image.

### list

#### System Image List

Displays a list of system images for the specified server.  
The following properties are displayed for each server.

Item Name	Description
SERVERNAME	Name of the server (physical OS or VM host) from which the system image was backed up
VERSION	Version number of the system image
BACKUPDATE	Backup date and time of the system image
COMMENT	Comment describing the system image

#### Cloning Image Display

Displays a list of cloning images for the specified server.  
The following properties are displayed for each server.

Item Name	Description
NAME	Name of the cloning image
VERSION	Version of cloning images
CREATIONDATE	Creation date and time of the cloning image
COMMENT	Comment describing the cloning image

## Option

**The following option can be specified for the backup, restore, create, or deploy subcommands:**

-nowait (optional)

Use this option to return directly to the command prompt without waiting for the command to complete its execution.

**The following option can be specified for the backup, restore or delete subcommand:**

-server *resource*

Specify the name of the target server (physical OS or VM host) in *resource*.

**The following options can be specified for the deploy or delete subcommand:**

-name *image*

Specify the name of the target cloning image in *image*.

-version *version* (optional)

Specify the version of the target cloning image to distribute in *version*.

This option can be omitted when deploying the latest cloning image version.

**The following option can be specified for the backup subcommand:**

-comment *comment* (optional)

Specify a *comment* to help identify the system image.

Enter a string no longer than 128 alphanumeric characters (either single or double-byte characters).

Note that percent signs ("%"), backslashes ("\") and double quotes ( " ) cannot be used for *comment*.



### Note

When using blank spaces in *comment*, enclose the whole character string, *comment*, in double quotes ( " ).

-force (optional)

Forces execution of a server backup when the target server's status is one of the following:

- normal
- warning
- unknown
- error
- fatal

**The following option can be specified for the restore subcommand:**

-version *version* (optional)

Specify the version number of the system image to restore in *version*.  
If omitted, the latest version of the system image will be restored.

**The following options can be specified for the create subcommand:**

-server *resource*

Specify the name of the target server (physical OS) in *resource*.

-name *image*

Specify a name to assign to the collected cloning image in *image*.

Enter a string that is no more than 32 characters long, where the first character is a letter and the remaining characters are alphanumeric characters or underscores ("\_").

-comment *comment* (optional)

Specify a *comment* to help identify the cloning image.

Enter a string no longer than 128 alphanumeric characters (either single or double-byte characters).

Note that percent signs ("%"), backslashes ("\") and double quotes ( " ) cannot be used for *comment*.



### Note

When using blank spaces in *comment*, enclose the whole character string, *comment*, in double quotes ( " ).

**The following option can be specified for the deploy subcommand:**

-server *resource*[:*hostname*],...

Specify the name of the server(s) (physical server) to deploy a cloning image to in *resource*.

Multiple server names can be specified using commas (",").

The name attributed to a server after deployment can be specified in *hostname*. This is done by adding a colon (":") and the *hostname* string behind each physical server's resource identifier string. If the *hostname* string is omitted, the post-deployment server name is set to the following.

- When a physical OS has not been registered

Physical server (*resource*) name

- When a physical OS has been registered

Physical OS name

Use the following syntax for the *hostname*.

[Windows]

A string of up to 63 characters, including alphanumeric characters, underscores ("\_"), and hyphens ("-").

Hostnames made of only numbers are not allowed.

[Linux]

A string of up to 64 characters, including alphanumeric characters, hyphens ("-"), periods ("."), and underscores ("\_").



### Note

When using SUSE Linux Enterprise Server, server names including periods (".") cannot be configured for post-deployment server names of cloning images.



### Information

As the physical OS name of a managed server refers to that server's hostname, it is recommended to use only characters specified in the RFC (Request For Comments) 952. Those characters are listed below.

- Alphanumeric Characters
  - Hyphens ("-")
  - Periods (".") [Linux]
- 

**The following options can be specified for the delete subcommand:**

**-version *version***

Specify the version number of the system image or cloning image to delete in *version*.

**The following options can be specified for the list subcommand:**

**-type {backup|cloning}**

Specify the type of image to list up.

- If "backup" is specified  
A list of system images is displayed.
- If "cloning" is specified  
A list of cloning images is displayed.

**-server *resource***

Specify the name of the server (physical OS or VM host) for which to display system images in *resource*. This option should not be specified if the "-type" option has been set to "cloning".

- If the "-type" option is set  
Omitting this option will output a list of system images for all managed servers.
- If the "-type" option is not set

The same list of system images (for all servers) can be output by specifying only the -server option without specifying a *resource* (this command usage differs from that of Systemwalker Resource Coordinator Virtual Server Edition V13.2.0 and V13.3.0. Refer to "Point" at the top of this section for details).

**-name *image***

Specify the name of the cloning image to display in *image*.  
If omitted, a list of all cloning images will be displayed.

## Requirements

### Permissions

One of the following permissions is required:

- OS Administrator
- Resource Orchestrator Privileged User

### Location

Admin server

## Usage example

- To create a system image backup

```
>rcxadm image backup -server blade07 -comment "Database Server-2" <RETURN>
```

- To restore a system image to a managed server

```
>rcxadm image restore -server blade07 -version 2 <RETURN>
```

- To delete a system image

```
>rcxadm image delete -server blade07 -version 2 <RETURN>
```

- To display a list of all system images

```
>rcxadm image list -type backup -server blade07 <RETURN>
SERVERNAME    VERSION    BACKUPDATE    COMMENT
-----
blade07       2          2007/11/01-10:06:35    Database Server-1
blade07       3          2007/11/12-15:16:55    Database Server-2
```

- To display a list of all system images

```
>rcxadm image list -type backup <RETURN>
SERVERNAME    VERSION    BACKUPDATE    COMMENT
-----
blade01       2          2007/11/01-10:06:35    Application Server-1
blade01       3          2007/11/12-15:16:55    Application Server-2
blade05       2          2007/12/01-10:06:35    File Server-1
blade05       3          2007/12/12-15:16:55    File Server-2
blade07       2          2007/01/31-20:46:25    Database Server-1
```

- To collect a cloning image

```
>rcxadm image create -server blade01 -name AppImage -comment "Windows" <RETURN>
```

- To deploy a cloning image

```
>rcxadm image deploy -server blade08:db02,blade09 -name AppImage -version 2 <RETURN>
```

- To delete a cloning image

```
>rcxadm image delete -name AppImage -version 2 <RETURN>
```

- To display a list of image versions for a given cloning image

```
>rcxadm image list -type cloning -name AppImage <RETURN>
NAME          VERSION    CREATIONDATE    COMMENT
-----
AppImage      1          2008/11/12-16:54:05    Windows
AppImage      2          2008/11/13-10:16:53    Windows+patch
```

- To display a list of all cloning images

```
>rcxadm image list -type cloning <RETURN>
NAME          VERSION    CREATIONDATE    COMMENT
-----
AppImage      1          2008/11/12-16:54:05    Windows
AppImage      2          2008/11/13-10:16:53    Windows+patch
DBImage       1          2008/11/13-13:21:38    Redhat
DBImage       2          2008/11/14-04:39:27    -
```

## Exit Status

This command returns the following values:



0

The command executed successfully.

non-zero

An error has occurred.

# Chapter 5 Control and Environment Setup

This chapter explains the commands used for control and environment setup of the manager and agents that comprise Resource Orchestrator.

## 5.1 deployment\_service\_uninstall

### Name

- Manager

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\deployment\_service\_uninstall.bat - Uninstallation of the related services

[Linux Manager]

/opt/FJSVrcvnr/bin/deployment\_service\_uninstall.sh - Uninstallation of the related services

- Agent

[Windows]

*Installation\_folder*\Agent\bin\deployment\_service\_uninstall.bat - Uninstallation of the related services

[Linux]

/opt/FJSVrcxat/bin/deployment\_service\_uninstall.sh - Uninstallation of the related services

### Format

deployment\_service\_uninstall.bat

deployment\_service\_uninstall.sh

### Description

deployment\_service\_uninstall is the command used to uninstall the related services from Resource Orchestrator.

When installing ServerView Deployment Manager in environments where Resource Orchestrator has been installed, run this command after installing Resource Orchestrator.

Please stop managers and agents before using this command.

After using this command, please start managers and agents.

For information on starting and stopping managers, refer to "2.1 Starting and Stopping Managers" in the "Operation Guide VE".

For information on starting and stopping agents, refer to "2.2 Starting and Stopping Agents" in the "Operation Guide VE".

### Requirements

Permissions

OS Administrator

Location

Admin server, managed server

### Examples

- To uninstall the related services from manager

```
>deployment_service_uninstall.bat <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.2 rcxadm agtctl

---

### Name

[Windows] [Hyper-V]

*Installation\_folder*\Agent\bin\rcxadm agtctl - Agent control

[Linux] [VMware] [Xen] [KVM]

/opt/FJSVrcxat/bin/rcxadm agtctl - Agent control

[Solaris]

/opt/FJSVrcvat/bin/rcxadm agtctl - Agent control

### Format

```
rcxadm agtctl start
rcxadm agtctl stop
rcxadm agtctl modify -manager ip
rcxadm agtctl snap [-dir directory] [-full]
```

### Description

rcxadm agtctl is the command used to start and stop agents, collect troubleshooting data and modify the admin LAN IP address of the manager that is registered in the agent.

For information on starting and stopping agents, refer to "2.2 Starting and Stopping Agents" in the "Operation Guide VE".

For information on collecting troubleshooting data, refer to "1.2.1 Collecting Initial Troubleshooting Data" and "1.2.2 Collecting Exhaustive Troubleshooting Data" in "Troubleshooting".

For information on changing the manager's admin LAN IP address, refer to "8.1 Changing Admin IP Addresses" in the "User's Guide VE".

### Subcommands

start

Starts the Agent.

stop

Stops the Agent.

modify [Physical server] [Hyper-V]

Modifies the admin LAN IP address of the manager that is registered in the agent.

snap

Collects troubleshooting data from the managed server.

The collected data is stored in the following compressed files:

[Windows] [Hyper-V]  
rcxtssnap\_*server\_name*.jar

[Linux] [Solaris] [VMware] [Xen] [KVM]

When collecting troubleshooting data, data is compressed on managed servers using the bzip2, the gzip, or the compress command. Depending on the command used, the name assigned to troubleshooting data will be one of the following.

Resource Orchestrator uses the command with the best compression ratio (bzip2 -> gzip -> compress) available on the managed server.

- When Compressing with bzip2  
rcxtssnap\_*server\_name*.tar.bz2
- When Compressing with gzip  
rcxtssnap\_*server\_name*.tar.gz
- When Compressing with compress  
rcxtssnap\_*server\_name*.tar.Z

## Options

**Specify the following options when using the modify subcommand:**

-manager *ip*

Specify the new manager IP address.

**The following options can be specified for the snap subcommand:**

-dir *directory*(Optional)

Specify the folder used to store the collected data in *directory*.

If this option is omitted, the data will be stored in the following folder:

[Windows] [Hyper-V]

The folder defined by the TEMP environment variable

[Linux] [Solaris] [VMware]

/tmp



- When using full paths in the *dir* and the TEMP environment variable

The length of the full path string must not exceed 100 characters. If more than 100 characters are used the troubleshooting data cannot be collected, and message number 67131 or message number 67265 will be displayed.

- When using relative paths in the *dir* and the TEMP environment variable

When specifying a relative folder path, its equivalent full path must not exceed 100 characters (calculated using the Windows 8.3 format (\*)). If the converted full path string exceeds 100 characters, the troubleshooting data will not be collected, and the "Message number 67131" will be displayed.

\* Note: This rule specifies that the file name can be a maximum of 8 characters, with a file extension of up to 3 characters

- The following symbols cannot be specified in the name of the folder in which the collected data is stored:

""", "|", "\*", "?", "/", "<", ">", ":", "%", "&", "^", "=", "!", ";"

[Windows] [Hyper-V]

- When specifying a folder using a relative path, specify the folder adding "." as the first characters.

-dir *.\folder\_name*

-full (Optional)

Collects exhaustive managed server troubleshooting data. This data is required to isolate the cause of a problem which could not be identified from initial troubleshooting data alone.

This requires significantly more disk space for the generated data files. This option can be omitted when collecting troubleshooting data for an initial investigation (first diagnostic).

## Requirements

Permissions

OS Administrator

Location

Managed server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.3 rcxadm authctl

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm authctl - user authentication directory service connection settings

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm authctl - user authentication directory service connection settings

### Format

```
rcxadm authctl register {-host hostname|-ip ip_address} [-port port] -base base_dn -bind bind_dn [-method {SSL|PLAIN}] {-passwd password|-passwd_file password_file}
rcxadm authctl unregister
rcxadm authctl show
rcxadm authctl modify [{-host hostname|-ip ip_address}] [-port port] [-base base_dn] [-bind bind_dn] {-passwd password|-passwd_file password_file} [-method {SSL|PLAIN}]
rcxadm authctl diffcert
rcxadm authctl refreshcert -alias alias
rcxadm authctl sync
```

### Description

rcxadm authctl is the command to operate the connection information of the directory server that retains user authentication information.

Only OS administrators can execute this command.

When using the following subcommands, stop the manager prior to command execution:

- register
- unregister

- modify
- refreshcert
- sync

## Subcommands

### register

Registers directory server connection information. When executing this command, the directory server is not connected. When multiple directory server connection information entries are registered, this subcommand cannot be used.

### unregister

Deletes the connection information of registered directory servers. When multiple directory server connection information entries are registered, this subcommand cannot be used.

### show

The registered directory server connection information is displayed in the following format.

```
host1: Host name or IP address
host2: Host name or IP address
port: Port number
base: Base DN
bind: Administrative user DN
method: Encryption communication method
```

When only one directory server connection information entry is registered, only one host name (or, IP address) is displayed.

### modify

Modifies the connection information of registered directory servers. When multiple directory server connection information entries are registered, this subcommand cannot be used.

### diffcert

Compares the certificates registered with ServerView Operations Manager and the Resource Orchestrator manager, and when the following difference exists, that certificate is displayed using an alias.

- Certificates that exist in the ServerView Operations Manager keystore, but not in the Resource Orchestrator manager's keystore
- Certificates that exist in the ServerView Operations Manager keystore and the Resource Orchestrator manager's keystore, but have conflicting fingerprints

This command cannot be used for the following configurations:

- ServerView Operations Manager has not been installed.
- Internal authentication is used as the authentication method

Difference of the CA certificate (keystore) is displayed using alias in the following format:

```
svs_cms
ldaphost.fujitsu.com
```

### refreshcert

Imports the certificate of ServerView Operations Manager corresponding to the specified alias into Resource Orchestrator. Specify the alias displayed by the diffcert command.

This command cannot be used for the following configurations:

- ServerView Operations Manager has not been installed.
- Internal authentication is used as the authentication method

If a root CA certificate has been registered with ServerView Operations Manager, specify that root CA certificate.

To import the server certificate, specify the alias for the following certificate:

- Server certificate of ServerView Operations Manager
- Server certificate of the directory server to be used

It is unnecessary when using the OpenDS or OpenDJ provided with ServerView Operations Manager.

### Note

The certificate is imported using the specified alias. The existing certificate is deleted in the following cases:

- There is a certificate which has the same alias
- There is a certificate which has the same content as the certificate to be imported

### Point

When executing the command, create a copy of the keystore (truststore-cacerts) file for Resource Orchestrator in the following format. When a file with the same name already exists, it will be overwritten.

[Windows Manager]

- Source File

*Installation\_folder*\SVROR\Manager\runtime\jre6\lib\security\cacerts

- Destination File

*Installation\_folder*\SVROR\Manager\runtime\jre6\lib\security\cacerts.org

[Linux Manager]

- Source File

/opt/FJSVrcvmr/runtime/jre6/lib/security/cacerts

- Destination File

/opt/FJSVrcvmr/runtime/jre6/lib/security/cacerts.org

sync

Synchronizes the directory server connection settings of Resource Orchestrator with those of ServerView Operations Manager. When directory server configuration information is not already registered, it will be registered with Resource Orchestrator using the settings of ServerView Operations Manager.

This command cannot be used for the following configurations:

- ServerView Operations Manager has not been installed.

## Options

**The following options can be specified when using the register and modify subcommands:**

-port *port* (optional)

Specify the port number of the directory server. When omitted, the following port number is regarded as having been specified using the -method value.

- SSL

636

- PLAIN

389

**-method {SSL|PLAIN} (optional)**

Specify the communication encryption method for the directory server. Specify either one of the following:

- When encrypted communication is enabled

SSL

- When encrypted communication is not enabled

PLAIN

When this option is omitted, the **-method SSL** is regarded as being specified.

**The following options can be specified when using the register subcommand:**

**-host *hostname***

Specify the host name for the directory server using an FQDN or an IP address.

**-ip *ip\_address***

Specify the IP address of the directory server. This option is for compatibility. Use the **-host** option.

**-base *base\_dn***

Specify the search base of the directory server in DN format.

**-bind *bind\_dn***

Specify administrative user name of the directory server in the DN format.

**-passwd *password***

Specify the password for the administrative user name of the directory server.

**-passwd\_file *password\_file***

Specify the password file for the administrative user name of the directory server. Enter the password file using the following format (remove the quotation marks).

"userdn,password"

**Specify the following options when using the modify subcommand:**

**-host *hostname***

Specify the host name for the directory server using an FQDN or an IP address.

**-ip *ip\_address* (optional)**

Specify the IP address of the directory server. This option is for compatibility. Use the **-host** option.

**-base *base\_dn* (optional)**

Specify the search base of the directory server in DN format.

**-bind *bind\_dn* (optional)**

Specify administrative user name of the directory server in the DN format.

**-passwd *password* (optional)**

Specify the password for the administrative user name of the directory server.

**-passwd\_file *password\_file* (optional)**

Specify the password file for the administrative user name of the directory server. Enter the password file using the following format (remove the quotation marks).

"userdn,password"

**Specify the following options when using the refreshcert subcommand:**



### -alias *alias*

Specify the alias of the certificate to import into the CA certificate of Resource Orchestrator.

When using blank spaces or symbols in the specified string, enclose the whole string in double quotes ( " ).

An alias which contains double quotes ( " ) as character elements cannot be specified for this command. Remove any double quotes (") included in the alias before executing this command.



- Enter a string of 1 or more characters for the administrative user name.
- Enter a string no longer than 128 characters for the password.
- When changing the configuration of the administrative user name and password, specify both files.
- When using blank spaces in the specified string, enclose the whole specified string in double quotes ( " ). Note that it is not necessary to use double quotations (") when specifying the character string in the password file.

## Requirements

### Permissions

OS Administrator

### Location

Admin server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.4 rcxadm certctl

---

### Name

- Manager

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm certctl - SSL certificate operations

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm certctl - SSL certificate operations

- Agent

[Windows] [Hyper-V]

*Installation\_folder*\Agent\bin\rcxadm certctl - SSL certificate operations

[Linux] [VMware] [Xen] [KVM]

/opt/FJSVrcxat/bin/rcxadm certctl - SSL certificate operations

[Solaris]

/opt/FJSVrcvat/bin/rcxadm certctl - SSL certificate operations

## Format

```
rcxadm certctl list
rcxadm certctl delete -alias alias
rcxadm certctl init
```

## Description

rcxadm certctl is the command used to manage the certificates required for SSL communication between a manager and its agents. For more information regarding this command, refer to "4.2 An Error Occurs during Cloning after the Manager is Reinstalled." in "Troubleshooting".



The manager or agent must be stopped in order to use this command. For information on stopping managers and their agents, refer to "5.11 rcxadm mgrctl" and "5.2 rcxadm agtctl".

## Subcommands

list

Displays a list of current SSL certificates. Each certificate stored in the certificates data file is indexed by a unique alias (\*). The example below shows how to display aliases using the list subcommand.



```
Truststore:
-----

Keystore type: jks
Keystore provider: SUN

The keystore contains 4 entries.

client1 (*), May 10, 2007, trustedCertEntry,
Certificate fingerprints (MD5): 0F:4E:1C:DB:19:AE:3B:82:9D:74:93:6C:46:D8:7C:D2
...
```

delete

Deletes the data of the designated SSL certificate.

init

Initializes the file used to store SSL certificates data.

## Option

**The following option can be specified for the delete subcommand:**

-alias *alias*

Specify the alias of the SSL certificate to delete in *alias*.

## Requirements

### Permissions

OS Administrator

### Location

Admin server, managed server

## Examples

- To display a list of SSL certificates currently used by the manager

```
>rcxadm certctl list <RETURN>
```

- To delete an SSL certificate used by the manager

```
>rcxadm certctl delete -alias alias <RETURN>
```

- To initialize the file used by the manager to store SSL certificates data

```
>rcxadm certctl init <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.5 rcxadm dbctl

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm dbctl - Management of the database for Resource Orchestrator

[Linux Manager]

*/opt/FJSVrcvmr/bin/rcxadm dbctl* - Management of the database for Resource Orchestrator

### Format

```
rcxadm dbctl modify -passwd
```

### Description

rcxadm dbctl is the command used for management of the database for Resource Orchestrator.



The manager must be stopped in order to use this command.

For information on stopping managers, refer to "5.11 rcxadm mgrctl".

## Subcommands

modify

Changes the database configuration for Resource Orchestrator.

## Options

-password

Changes the database password for Resource Orchestrator.

When the password of the OS user account (rcxdb) for use in connection with Resource Orchestrator has been changed, this command must be executed.

It is also possible to change the password for the OS user account (rcxdb) directly using this command.

When changing the password, enter the following interactively.

1. New Password
2. New Password for Confirmation



For the password, enter a string including upper case alphabetic characters, lower case alphabetic characters, and numerals. The length of the string must be the length allowed by the OS of the admin server.

## Requirements

Permissions

OS Administrator

Location

Admin server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.6 rcxadm deployctl

---

### Name

[Windows Manager]

*Installation\_folder*\Agent\bin\rcxadm deployctl - Encryption of license information definition files

[Linux Manager]

/opt/FJSVrcxat/bin/rcxadm deployctl - Encryption of license information definition files

## Format

```
rcxadm deployctl passwd -encrypt
```

## Description

rcxadm deployctl is the command used to encrypt the administrator password on managed servers running on Windows Server 2008 or later, after editing the license information definition file.

The license information definition file is created by installing the Resource Orchestrator Agent. With the cloning function, use this file to perform Windows license authorization.

For details on how to use this command, refer to "17.2 Collecting" in the "User's Guide VE".

## Subcommands

passwd

Encrypts the administrator password that is included in the license information definition file.

## Options

-encrypt

Always specify this option when encrypting the password.

## Requirements

Permissions

OS Administrator

Location

Managed server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.7 rcxadm eventctl

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm eventctl - Event control

[Linux Manager]

*/opt/FJSVrcvnr/bin/rcxadm eventctl* - Event control

## Format

```
rcxadm eventctl add -destination host -community snmp_community
rcxadm eventctl delete -destination host -community snmp_community
rcxadm eventctl list
```

## Description

rcxadm eventctl is the command used to send Resource Orchestrator events as SNMP traps.  
For information on the usage of this command, refer to "A.2 Sending SNMP Traps" in the "Setup Guide VE".

## Subcommands

### add

Registers the SNMP trap transmission destination. A maximum of five destinations can be registered.

### delete

Deletes a registered SNMP trap transmission destination.

### list

Displays a list of registered SNMP trap transmission destinations.  
The following properties are displayed for each server.

Item Name	Description
DESTINATION	Host name or IP address
COMMUNITY	SNMP community name

## Options

**The following options can be specified for the set subcommand, when specifying add or delete:**

### -destination *host*

Specify the IP address or server name of the server that is the SNMP trap transmission destination for *host*.  
For the server name, enter a string of up to 64 alphanumeric characters and numerals.

"%", "+", ",", "-", ".", "/", ":", "=", "@", "\_", "~"

### -community *snmp\_community*

Specify SNMP community name or server name of the server that is the SNMP trap transmission destination for *snmp\_community*.  
For the SNMP community name, enter a string of up to 32 alphanumeric characters, hyphens ("-"), and underscores ("\_").

## Requirements

### Permissions

One of the following permissions is required:

- OS Administrator
- Resource Orchestrator Privileged User

### Location

Admin server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.8 rcxadm imagemgr

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm imagemgr - Image management settings

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm imagemgr - Image management settings

### Format

```
rcxadm imagemgr info
```

```
rcxadm imagemgr set -attr imagedir=dir
```

```
rcxadm imagemgr set -attr {backup|clone}.maxversion=value
```

### Description

rcxadm imagemgr is the command used to change the image files folder location, or the maximum number of image versions that can be kept in Resource Orchestrator.

Operations for system images and cloning images of servers

For details on changing the maximum number of system image versions, refer to "8.3 Changing the Maximum Number of System Image Versions" in the "User's Guide VE".

For details on changing the maximum number of cloning image versions, refer to "8.4 Changing the Maximum Number of Cloning Image Versions" in the "User's Guide VE".

A new folder should be created when changing the location of the image file storage folder.

For details on changing the path for the image file storage folder, refer to "8.5 Changing the Image Folder Location" in the "User's Guide VE".

### Subcommand

info

Displays current image settings (the maximum number of image versions and the location of the image files folder). The following properties are displayed for each server.

Table 5.1 info Subcommand Display Parameters

Item Name	Description
backup.maxversion	Maximum number of system image versions
clone.maxversion	Maximum number of cloning image versions
imagedir	Location of the image files folder

set

Sets a new location for the image files folder, or sets a new limit for the number of image versions.

## Option

**The following options can be specified for the set subcommand:**

**-attr imagedir=*dir***

Specify a new location (path) for the image files folder in *dir*.

The specified folder path must match all of the following requirements.

- The specified path should be no more than 100 characters long
- The specified path should include none of the following characters  
"\"", "|", ":", "?", "/", "<", ">", " ", "%", "&", "^", "=", "!", ";"
- Only local folder paths are allowed (UNC paths are not permitted)
- Folders must be created beforehand
- When using blank spaces in the specified path, enclose the whole specified path in double quotes ( " ")
- Do not add "\" to the end of the specified path
- The specified path should not point to any of the following folders

[Windows Manager]

*Installation\_folder*\SVROR\Manager

[Linux Manager]

/opt/FJSVrcvmr

/etc/opt/FJSVrcvmr

/var/opt/FJSVrcvmr

- The specified folder is empty

[Linux]

If a partition (file-system) was specially created to store image files, this partition will include a "lost+found" folder, and therefore cannot be considered as empty.

In that case, be sure to create and use a dedicated directory to store image files within that partition.

- The specified path should have proper security settings

[Linux]

For safer administration, it is recommended to use either the following permissions settings for each ancestor directory of the image files directory.

- Give write permissions only to system administrators
- Use the sticky bit to prevent other users from renaming or deleting image files

If permissions are not set as above, this command may fail to change the image files folder location.

When changing the image files folder location, image files are copied to the new location, which may take some time to complete.

**-attr {backup|clone}.maxversion=*value***

Changes the maximum number of image file versions.



- To change the maximum number of system image versions  
Specify backup.
- To change the maximum number of cloning image versions  
Specify clone.  
Specify a new maximum number of image file versions in *value*.  
Enter a numerical value between 1 and 10 in *value*.

## Requirements

### Permissions

OS Administrator

### Location

Admin server

The manager should be stopped when changing the image files folder location. For information on stopping managers, refer to "2.1 Starting and Stopping Managers" in the "Operation Guide VE".

If the ROR console was opened, the Web browser should be refreshed after changing the maximum number of image file versions.

## Usage example

- When specifying a path for the image files folder that includes no blank spaces

[Windows Manager]

When changing to C:\temp

```
>rcxadm imagemgr set -attr imagedir=C:\temp <RETURN>
```

[Linux Manager]

When changing to /tmp

```
# rcxadm imagemgr set -attr imagedir=/tmp <RETURN>
```

- When specifying a path for the image files folder that includes blank spaces

[Windows Manager]

When changing to C:\temp\Resource Orchestrator VE

```
>rcxadm imagemgr set -attr imagedir=C:\temp Resource Orchestrator VE" <RETURN>
```

[Linux Manager]

When changing to \tmp\Resource Orchestrator VE

```
# rcxadm imagemgr set -attr imagedir="/tmp/Resource Orchestrator VE" <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.9 rcxadm lanctl

---

### Name

[Windows]

*Installation\_folder*\Agent\bin\rcxadm lanctl - Network parameters configuration

[Linux]

/opt/FJSVrcxat/bin/rcxadm lanctl - Network parameters configuration

### Format

```
rcxadm lanctl set
rcxadm lanctl unset
rcxadm lanctl enable
rcxadm lanctl disable
```

### Description

rcxadm lanctl is the command used to configure network parameters for network interfaces on managed servers.

This command cannot be used on managed servers running SUSE Linux Enterprise Server as their operating system.

### Subcommands

set

Applies the settings previously defined in the network configuration file to the managed server's network interfaces.

For more information regarding the network configuration file, refer to "17.6 Network Parameter Auto-Configuration for Cloning Images" in the "User's Guide VE".

unset

Clears the network parameters previously applied to the managed server's network interfaces via the set subcommand.

enable

Enables the network parameter auto-configuration function for cloning image deployment.

disable

Disables the network parameter auto-configuration function for cloning image deployment.

### Requirements

Permissions

OS Administrator

Location

Managed server

### Examples

- To apply the network parameters configuration

```
>rcxadm lanctl set <RETURN>
```

- To undo the network parameters configuration

```
>rcxadm lanctl unset <RETURN>
```

- To enable the network parameter auto-configuration function

```
>rcxadm lanctl enable <RETURN>
```

- To disable the network parameter auto-configuration function

```
>rcxadm lanctl disable <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.10 rcxadm license

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm license - license control

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm license - license control

### Format

```
rcxadm license add -lkey license_key  
rcxadm license list
```

### Description

rcxadm license is the command used to register licenses or to check the licenses already registered.

### Subcommands

add

Registers a license.

list

To display a list of registered licenses.

### Option

-lkey *license\_key*

Specify a license key to be registered in *license\_key*.

## Requirements

### Permissions

One of the following permissions is required:

- OS Administrator
- Resource Orchestrator Privileged User

### Location

Admin server

## Examples

- To display a list of registered licenses.

```
>rcxadm license list <RETURN>
LICENSE_ NAME      NUMBER_OF_LICENSES  STATUS
-----
Cloud Edition      10                  Inactive
Virtual Edition    5                   Active
DR option          0                   -
NS option          0                   -
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.11 rcxadm mgrctl

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm mgrctl - Manager control

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxadm mgrctl - Manager control

### Format

```
rcxadm mgrctl start
rcxadm mgrctl stop
rcxadm mgrctl modify {-ip ip |-port name=number}
rcxadm mgrctl snap [-dir directory] [-full|-all]
```

### Description

rcxadm mgrctl is the command used to start and stop managers, collect troubleshooting data, and change admin LAN IP addresses and port numbers.

For information on starting and stopping managers, refer to "2.1 Starting and Stopping Managers" in the "Operation Guide VE".

For information on collecting troubleshooting data, refer to "1.2.1 Collecting Initial Troubleshooting Data" and "1.2.2 Collecting Exhaustive Troubleshooting Data" in "Troubleshooting".

For information on methods for changing IP addresses and port numbers, refer to "8.1 Changing Admin IP Addresses" and "8.2 Changing Port Numbers" in the "User's Guide VE".

[Windows Manager]

If port numbers are changed, the following lines in the *Windows\_system\_folder\system32\drivers\etc\services* file are automatically updated.

[Linux Manager]

If the port number has been changed, the following lines in the *\etc\services* file will be changed automatically.

```
# service name port number/protocol name
rcxmgr      23460/tcp
rcxweb      23461/tcp
rcxtask     23462/tcp
rcxmongrel1 23463/tcp
rcxmongrel2 23464/tcp
rcxdb       23465/tcp
nfdomain    23457/tcp
nfagent     23458/tcp
```

### Note

- In a clustered manager configuration, this command should not be used to start or stop the manager.

[Windows Manager]

- Start the Manager

In the Failover Cluster Management tree, right-click [Services and Applications] for managers, and select [Bring this service or application online] from the popup menu.

- Stop the Manager

In the Failover Cluster Management tree, right-click [Services and Applications] for managers, and select [Take this service or application offline] from the popup menu.

[Linux Manager]

Use the cluster system administration view (Cluster Admin) to start or stop the manager.

Refer to the PRIMECLUSTER manual for details.

## Subcommands

start

Starts the manager.

stop

Stops the manager.

modify

Modifies the IP address used by the manager in the admin LAN or its port number.

snap

Collects troubleshooting data.

## Options

Specify the following options when using the modify subcommand:

-ip *ip*

Specify the new manager IP address.

-port *name=number*

Specify the port name to be modified in *name*, and the new port number in *number*.  
The port name can be one of the following values:

- rcxmgr
- rcxweb
- rcxtask
- rcxmongrel1
- rcxmongrel2
- rcxdb
- nfdomain
- nfacent

**The following options can be specified for the snap subcommand:**

-dir *directory*(Optional)

Specify the folder used to store the collected data in *directory*.  
When omitted, the data will be stored in the folder specified by the TEMP environment variable:



- When using full paths in the *dir* and the TEMP environment variable

The length of the full path string must not exceed 100 characters. If more than 100 characters are used the troubleshooting data cannot be collected, and message number 67131 or message number 67265 will be displayed.

- When using relative paths in the *dir* and the TEMP environment variable

When specifying a relative folder path, its equivalent full path must not exceed 100 characters (calculated using the Windows 8.3 format (\*)). If the converted full path string exceeds 100 characters, the troubleshooting data will not be collected, and the "Message number 67131" will be displayed.

\* Note: This rule specifies that the file name can be a maximum of 8 characters, with a file extension of up to 3 characters

- The following symbols cannot be specified in the name of the folder in which the collected data is stored:

""", "|", "\*", "?", "/", "<", ">", ",", "%", "&", "^", "=", "!", ";"

[Windows Manager]

"/"

[Linux Manager]

"\"

-full (Optional)

Collects exhaustive troubleshooting data from the admin server. This data is required to isolate the cause of a problem which could not be identified from initial troubleshooting data alone.

This requires significantly more disk space for the generated data files. This option can be omitted when collecting troubleshooting data for an initial investigation (first diagnostic).

-all (Optional)

This option collects troubleshooting data not only from the admin server, but from all the managed servers as well. This option cannot be used together with the -full option.

Since only data required for initial troubleshooting is collected, it does not require much disk space. The data can also be collected quickly and sent easily via email.

Data collected from both the admin server and managed servers is stored in the directory specified by `dir` on the admin server from which the command was executed.

If the user account does not have administrative authority within the operating system, it is necessary to log in as a Resource Orchestrator privileged user (using the `rcxlogin` command) to use this option.

For information on the `rcxlogin` command, refer to "2.1 `rcxlogin`".

#### - Collected Files

The collected data is stored in the following compressed files:

##### - Admin Server

[Windows Manager]

`rcxtssnap_server_name.jar`

The `server_name` part will be in lower case when the `-all` option is specified, or upper case when omitted.

[Linux Manager]

`rcxtssnap_server_name.tar.bz2`

The `server_name` part will be in lower case when the `-all` option is specified, or upper case when omitted.

##### - Managed Server

[Windows] [Hyper-V]

`Managed_server\rcxtssnap_physical_server_name.jar`

[Linux] [VMware]

`Managed_server\rcxtssnap_physical_server_name.tar.bz2`

The managed server's name is displayed in `Managed_server`.



#### Note

[Linux] [VMware]

When collecting troubleshooting data, data is compressed on managed servers using either the `bzip2` or the `gzip` compression command. Depending on the command used, the resulting file extension will be either one of the following.

Resource Orchestrator uses the command with the best compression ratio (`bzip2` -> `gzip`) available on the managed server.

- When compressing with `bzip2`

\*.tar.bz2

- When compressing with `gzip`

\*.tar.gz

#### Execution Log

##### - Data Collection Results

`rcxtssnap_result.txt`

This file displays collection results in the following format:

<code>Server_name:Result</code>
---------------------------------

##### Server\_name

For a managed server, the physical server name is displayed.

For an admin server, the server name is displayed.

##### Result

OK: Indicates that the data collection was successful.

NG: Indicates that the data collection failed.



#### Example

```
blade1:OK
blade2:NG
blade4:NG
blade5:OK
Manager:OK
```

- Error Log

**Admin server**

*rcxtssnap\_server\_name\_error.txt*

**Managed server**

[Windows]

*Managed\_Server\rcxtssnap\_physical\_server\_name\_error.txt*

[Linux]

*Managed\_Server\rcxtssnap\_physical\_server\_name\_error.txt*

## Requirements

### Permissions

OS Administrator

Note that when logged in as a Resource Orchestrator privileged user (using the `rcxlogin` command), only the `-all` option of the troubleshooting data collection subcommand (`snap`) can be used.

### Location

Admin server

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.12 rcxadm servermgr

---

### Name

[Windows Manager]

*Installation\_folder\SVROR\Manager\bin\rcxadm servermgr* - Server management software operations

[Linux Manager]

*/opt/FJSVrcvmr/bin/rcxadm servermgr* - Server management software operations

### Format

```
rcxadm servermgr register -name name [-label label] [-comment comment] -soft_name soft_name
```

```
rcxadm servermgr list [-verbose]
```

```
rcxadm servermgr show -name name
```

```
rcxadm servermgr unregister -name name
```



```
rcxadm servermgr modify -name name [-label label] [-comment comment]  
rcxadm servermgr refresh -name name
```

## Description

rcxadm servermgr is the command used to perform operations of server management software.

## Subcommands

register

Registers server management software.

list

Displays a list of server management software information.

The following detailed information is displayed:

Table 5.2 Server Management Software Information

Item Name	Description
NAME	Server management software name
LABEL	Label of the server management software
COMMENT (*)	Comment for the server management software
SOFT NAME	Name of the server management software
STATUS	Status of the server management software

\* Note: When specifying -verbose for the option, it is displayed.

show

Displays the detailed information of the server management software.

The following detailed information is displayed:

Table 5.3 Detailed Information of Server Management Software

Item Name	Description
Name	Server management software name
Label	Label of the server management software
Comment	Comment for the server management software
Soft name	Name of the server management software
Version	Version of the server management software
Status	Status of the server management software

unregister

Unregisters the server management software.

modify

Modifies the following items of server management software:

- Label
- Comment

refresh

Updates server management software information.

## Options

-name *name*

In *name*, specify the resource name of the target server management software.

-soft\_name *soft\_name*

In *soft\_name*, specify the server management software. The specifiable names are shown below.

- When using BMC BladeLogic Server Automation

Specify "blade\_logic".

-verbose

Specify when displaying detailed information.

-label *label*

In *label*, specify the label of the target server management software.

-comment *comment*

In *comment*, specify the comment for the target server management software.

## Examples

- To display the list of server management software information:

```
>rcxadm servermgr list <RETURN>
NAME          LABEL      SOFT NAME          STATUS
-----
BladeLogic    -          BMC BladeLogic Server Automation  normal
```

- To display the detailed list of server management software information:

```
>rcxadm servermgr list -verbose <RETURN>
NAME          LABEL      COMMENT           SOFT NAME          STATUS
-----
BladeLogic    -          -                 BMC BladeLogic Server Automation  normal
```

- To display the detailed information for server management software:

```
>rcxadm servermgr show -name BladeLogic <RETURN>
Name: BladeLogic
Label:
Comment:
Soft name: BMC BladeLogic Server Automation
Version: 8.2.01.273
Status: normal
```

## 5.13 rcxadm storagemgr

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxadm storagemgr - Storage management software operations

[Linux Manager]

**/opt/FJSVrcvmr/bin/rcxadm storagemgr** - Storage management software operations

## Format

```
rcxadm storagemgr register -name name -soft_name soft_name
rcxadm storagemgr list
rcxadm storagemgr unregister -name name
```

## Description

rcxadm storagemgr is the command used to operate storage management software.

## Subcommands

register

Registers storage management software.

list

Displays a list of storage management software information.

unregister

Unregisters storage management software.

## Options

**The following option can be specified when using the register and unregister subcommands:**

**-name *name***

Specify the resource name of the target operation storage management software for *name*.

For the resource name for registration, enter a string of up to 32 alphanumeric characters, hyphens ("-"), and underscores ("\_"). This name should start with an alphabet character.

**The following option can be specified when using the register subcommand:**

**-soft\_name *soft\_name***

Specify the storage management software for *soft\_name*.

Specify "esc", when using ETERNUS SF Storage Cruiser.

## Examples

- To display a list of storage management software

```
>rcxadm storagemgr list <RETURN>
NAME          LABEL          SOFT NAME          STATUS
----          -
esc00         -              ETERNUS SF Storage Cruiser  normal
```

## Requirements

Permissions

One of the following permissions is required:

- OS Administrator
- Resource Orchestrator Privileged User

#### Location

Admin server

### Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## 5.14 macbindconfig

---

### Name

- Agent
  - [Linux]
  - `/usr/local/sbin/macbindconfig` - Bind settings for MAC addresses

### Format

```
macbindconfig create
```

### Description

macbindconfig is the function for configuring MAC addresses of Network Interface Cards (NICs) in interface configuration files corresponding to Ethernet interface names (eth0, eth1, etc.), and allocating the correct NIC to each interface, regardless of the NIC load order, in environments in which multiple NICs are used.

This command is automatically executed when installing an ROR agent.

After an ROR agent has been installed, execute this command when adding or removing network interfaces.

### Subcommands

create

Relation information on the PCI bus number that corresponds to the Ethernet interface name (eth0 and eth1, etc.) is kept in a file (`/etc/macbind-tool/pci-eth_table`) as configuration information.

### Requirements

#### Permissions

OS Administrator

#### Location

Managed server

## Examples

- When creating a configuration information file with the PCI bus number that corresponds to the Ethernet interface name

```
> /usr/local/sbin/macbindconfig create <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

# Chapter 6 Backup and Restoration Operations for Configuration Definition Information

This chapter explains how to use the commands to backup and restore the configuration definition information of Resource Orchestrator.

## 6.1 rcxbackup

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxbackup - Backup of configuration definition information

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxbackup - Backup of configuration definition information

### Format

```
rcxbackup [-dir directory] [[-immediate]|[-timeout value]]
```

### Description

rcxbackup is the command used for backup of the configuration definition information of Resource Orchestrator.

Back up configuration definition information of Resource Orchestrator using this command for restoration in case the configuration definition information is damaged.

Configuration definition information cannot be backed up while resource operations are being performed.

Backup of configuration definition information can only be performed when no operation is being executed for the resources.

When executing the command while the manager is running, backup will be performed after the operations are completed.

When this command is executed while the manager is being stopped, this command will be returned without waiting for the completion of operations being executed, regardless of the presence or absence of the specified options.

### Options

-dir *directory*

In *directory*, specify a directory to use for backup of the configuration definition information of Resource Orchestrator. Network driver cannot be specified as a directory when backup is online.

When omitting the directory specification, or the destination is defined in the following definition file, the backup is saved in the specified directory.

Storage Location of Definition Files

[Windows Manager]

*Installation\_folder*\SVROR\Manager\etc\customize\_data\Manager\_backup.rcxprop

[Linux Manager]

/etc/opt/FJSVrcvmr/customize\_data/manager\_backup.rcxprop

If the directory specification is omitted in the definition file, the backup is saved in the following directory:

Storage Location of Backup Files

[Windows Manager]

*Installation\_folder*\SVROR\Manager\var\backup

[Linux Manager]

/var/opt/FJSVrcvmr/backup

### -immediate

Use this option to return directly to the command prompt without waiting for the operation being executed on the admin server to complete its execution.

Backup of configuration definition information can only be performed when no operation is being executed for the resources. If an operation is being executed, this command will return an error.

### -timeout *value*

Use this option to wait the number of seconds specified in *value* for completion of the operation being performed on the admin server. If the operation is not completed within the specified time, this command will return an error.

If this option is omitted, the default value (3600 seconds) is set.

Use this option to return an error when the operation being executed on the admin server does not complete its execution after the expiration of the number of seconds specified in *value*.

Periodical backup may not be able to start its process while the manager is performing operations using the configuration definition information. Specify this option to cancel the backup after the specified number of seconds has elapsed.

If this command is executed when the manager has been stopped, the specification of this option will be ignored.

## Requirements

### Permissions

- OS Administrator
- Resource Orchestrator Privileged User

### Location

Admin server

## Examples

```
>rcxbackup -dir /dir0 -immediate <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.



- Specify the command using an absolute path.
- When specifying folders or directories, take note of the following points.
  - Do not specify the system installation folder or the installation directory for the -dir option.
  - Do not use double-byte characters or the following symbols to specify folders or directories for the -dir option.

""", "|", "\*", "?", "<", ">", ",", "%", "&", "^", "=", "!", ";"

[Windows Manager]

"/"

[Linux Manager]

"\"

- The folder path or directory path can be specified using up to 100 characters.
  - For the -timeout option, 172,800 or less seconds can be specified.
  - Do not stop or start the manager during execution of this command.
  - If this command fails, a folder or a directory that has a name starting with tmp will be created in the folder or directory specified for the -dir option. If the problem is still not resolved after performing the actions based on the output error message, collect the folder or the directory as troubleshooting data, and contact Fujitsu technical staff. Delete these folders or directories when they are no longer necessary.
  - Do not execute this command while resource operations are being performed.
  - If the configuration definition information is being updated when the periodical backup operation starts, the backup operation will be postponed until the update is complete.
  - When an operation is being executed on the admin server, "INFO: Manager operation is still running." is displayed periodically.
- 

## 6.2 rcxkeydefbackup

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxkeydefbackup - Backup of other definition and management information

[Linux Manager]

/opt/FJSVrcvnr/bin/rcxkeydefbackup - Backup of other definition and management information

### Format

**rcxkeydefbackup** [-dir *directory*] [[-immediate]|[-timeout *value*]]

### Description

rcxkeydefbackup is the command used for backup of the other definition and management information of Resource Orchestrator.

Back up the following other definition and management information of Resource Orchestrator using this command for restoration in case the information is damaged.

Table 6.1 List of Items for Backup/Restore [Windows Manager]

No	Overview	Item
1	Certificates	<i>Installation_folder</i> \SVROR\Manager\etc\opt\FJSVssmgr\current\certificate (*1) <i>Installation_folder</i> \SVROR\Manager\etc\opt\FJSVrcxdm\certificate (*1) <i>Installation_folder</i> \SVROR\Manager\sys\apache\conf\ssl.crt <i>Installation_folder</i> \SVROR\Manager\sys\apache\conf\ssl.key
2	Session encryption keys	<i>Installation_folder</i> \SVROR\Manager\rails\config\rcx_secret.key
3	Definition files	<i>Installation_folder</i> \SVROR\Manager\etc\customize_data (*1) <i>Installation_folder</i> \SVROR\Manager\etc\vm (*1) <i>Installation_folder</i> \SVROR\Manager\etc\l_server (*1) <i>installation_folder</i> \SVROR\Manager\etc\trapop.bat <i>Installation_folder</i> \SVROR\Manager\sys\usm\etc\symmetrix.conf



No	Overview	Item
4	Image management information (*2)	The number of system image versions The number of cloning images versions Image file storage folder
5	Home tab information	<i>Installation_folder</i> \SVROR\Manager\rails\public\man\en\VirtualEdition\home.html (*3) <i>Installation_folder</i> \SVROR\Manager\rails\public\man\ja\VirtualEdition\home.html (*3) <i>Installation_folder</i> \SVROR\Manager\rails\public\man\en\VirtualEdition\img (*3) <i>Installation_folder</i> \SVROR\Manager\rails\public\man\ja\VirtualEdition\img (*3) <i>Installation_folder</i> \SVROR\Manager\rails\public\man\en\VirtualEdition\css (*3) <i>Installation_folder</i> \SVROR\Manager\rails\public\man\ja\VirtualEdition\css (*3)

\*1: All objects in the specified directory are targeted. Objects linked with shortcut are not backed up.

\*2: The values displayed using the rcxadm imagemgr info command are targeted.

\*3: It is information file used by Virtual Edition.

Table 6.2 List of Items for Backup/Restore [Linux Manager]

No	Overview	Item
1	Certificates	/etc/opt/FJSVrcvmr/opt/FJSVssmgr/current/certificate (*1) /etc/opt/FJSVrcvmr/sys/apache/conf/ssl.crt /etc/opt/FJSVrcvmr/sys/apache/conf/ssl.key
2	Session encryption keys	/opt/FJSVrcvmr/rails/config/rcx_secret.key
3	Definition files	/etc/opt/FJSVrcvmr/customize_data (*1) /etc/opt/FJSVrcvmr/vm (*1) /etc/opt/FJSVrcvmr/l_server (*1) /etc/opt/FJSVrcvmr/trapop.sh /opt/FJSVrcvmr/sys/usm/etc/symmetrix.conf
4	Image management information (*2)	The number of system image versions The number of cloning images versions Image file storage directory
5	Home tab information	/opt/FJSVrcvmr/rails/public/man/en/VirtualEdition/home.html (*3) /opt/FJSVrcvmr/rails/public/man/ja/VirtualEdition/home.html (*3) /opt/FJSVrcvmr/rails/public/man/en/VirtualEdition/img (*3) /opt/FJSVrcvmr/rails/public/man/ja/VirtualEdition/img (*3) /opt/FJSVrcvmr/rails/public/man/en/VirtualEdition/css (*3) /opt/FJSVrcvmr/rails/public/man/ja/VirtualEdition/css (*3)

\*1: All objects in the specified directories are targeted. Objects linked using symbolic links are not backed up.

\*2: The values displayed using the rcxadm imagemgr info command are targeted.

\*3: It is information file used by Virtual Edition.

Other definition and management information cannot be backed up while resource operations are being performed. Backup of other definitions and management information can only be performed when no operation is being executed for the resources.

When executing the command while the manager is running, backup will be performed after the operations are completed.

When this command is executed while the manager is stopped, this command will be returned regardless of the presence or absence of the specified options. Completion of operations being executed will not be waited for.

## Options

### -dir *directory*

In *directory*, specify a directory to back up other definition and management information of Resource Orchestrator. Network driver cannot be specified as a directory when backup is online.

When this option is omitted, if the destination is defined in the following definition file, the information is saved in the specified folder or directory:

[Windows Manager]

*Installation\_folder*\SVROR\Manager\etc\customize\_data\Manager\_backup.rcxprop

[Linux Manager]

/etc/opt/FJSVrcvmr/customize\_data/manager\_backup.rcxprop

If the destination is not defined, the information is saved in the following folder or directory:

[Windows Manager]

*Installation\_folder*\SVROR\Manager\var\backup

[Linux Manager]

/var/opt/FJSVrcvmr/backup

### -immediate

Use this option to return directly to the command prompt without waiting for the operation being executed on the admin server to complete its execution.

Backup can only be performed when no operation is being executed for the resources. If an operation is being executed, this command will return an error.

### -timeout *value*

Use this option to wait the number of seconds specified in *value* for completion of the image operation being performed on the admin server. If the operation is not completed within the specified time, this command will return an error.

If this option is omitted, the default value (3600 seconds) is set.

When this command is periodically executed while the manager is operating, if heavy operations such as L-Server creation are ongoing, execution of the command will be delayed until the relevant operation is completed. Specify this option to terminate execution of the command within a fixed time.

When an operation is being executed on the admin server, "INFO: Manager operation is still running." is displayed periodically.

If this command is executed when the manager has been stopped, the specification of this option will be ignored.

## Requirements

### Permissions

- OS Administrator
- Resource Orchestrator Privileged User

### Location

Admin server

## Examples

```
>rcxkeydefbackup -dir /dir1 -immediate <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.



- When specifying folders or directories, take note of the following points:
  - Do not specify the system installation folder or the installation directory for the -dir option.
  - Do not use double-byte characters or the following symbols to specify folders or directories for the -dir option.  
"\"", "|", ":", ":", "<", ">", ":", "%", "&", "^", "=", "!", ";",  
[Windows Manager]  
"/"  
[Linux Manager]  
\"
  - The folder or directory path can be specified using up to 100 characters.
  - For restoration, the certificates, configuration definition information, OS property definition files, system images, and cloning images must have been backed up at the same point in time. It is recommended to store the backed up information in folders with names including the date and time of backup.
  - For the -timeout option, "172800" or less seconds can be specified.
- Do not stop or start the manager during execution of this command.
- If this command fails, a folder or a directory that has a name starting with tmp will be created in the folder or directory specified for the -dir option.  
If the problem is still not resolved after performing the actions based on the output error message, collect the folder or the directory as troubleshooting data, and contact Fujitsu technical staff. Delete these folders or directories after collecting the troubleshooting data.

## 6.3 rcxkeydefrestore

---

### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxkeydefrestore - Restoration of other definition and management information

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxkeydefrestore - Restoration of other definition and management information

### Format

**rcxkeydefrestore -file filename**

### Description

rcxkeydefrestore is the command used for the restoration of other definition and management information of Resource Orchestrator.

## Options

-file *filename*

In *filename*, specify the compressed format file name of the backup collected using the rcxbackup command.

## Requirements

Permissions

- OS Administrator
- Resource Orchestrator Privileged User

Location

Admin server

## Examples

```
>rcxkeydefrestore -file mgr_20110123_1159.bz2 <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.

## Note

- This command deletes everything in the folder or directory that is the target of Backup/Restore when it is executed, and then restores the backup specified with the -file option.
- When specifying files, take note of the following points:
  - Do not use double-byte characters or the following symbols to specify files for the -file option.  
""", "|", "\*", "?", "<", ">", ",", "%", "&", "^", "=", "!", ";"  
[Windows Manager]  
"/"  
[Linux Manager]  
"\
  - The file path can be specified using up to 100 characters.
- Do not stop or start the manager during execution of this command.
- If this command fails, a folder or a directory that has a name starting with tmp will be created in the folder or directory specified for the -file option.  
If the problem is still not resolved after performing the actions based on the output error message, collect the folder or the directory as troubleshooting data, and contact Fujitsu technical staff.  
Delete these folders or directories after collecting the troubleshooting data.

## 6.4 rcxrestore

---

## Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\rcxrestore - Restoration of configuration definition information

[Linux Manager]

/opt/FJSVrcvmr/bin/rcxrestore - Restoration of configuration definition information

## Format

```
rcxrestore -file filename
```

## Description

rcxrestore is the command used for restoration of the configuration definition information of Resource Orchestrator.

## Options

-file *filename*

In *filename*, specify the compressed format file name of the backup collected using the rcxbackup command.

## Requirements

Permissions

- OS Administrator
- Resource Orchestrator Privileged User

Location

Admin server

## Examples

```
>rcxrestore -file mgr_20110123_1159.bz2 <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.



### Note

- Specify the command using an absolute path.
- When specifying files, take note of the following points.
  - Do not use double-byte characters or the following symbols to specify files for the -file option.

""", "|", ":", ":", ":", "<", ">", ":", "%", "&", "^", "=", "!", ":", "

[Windows Manager]  
"/"

[Linux Manager]  
"\\"

- The file path can be specified using up to 100 characters.
- For restoration, the certificates, configuration definition information, OS property definition files, system images, and cloning images must have been backed up at the same point in time. It is recommended to store the backed up information in folders with names including the date and time of backup.
- Do not stop or start the manager during execution of this command. If this command fails, a folder or a directory that has a name starting with tmp will be created in the folder or directory specified for the -file option. If the problem is still not resolved after performing the actions based on the output error message, collect the folder or the directory as troubleshooting data, and contact Fujitsu technical staff. Delete these folders or directories when they are no longer necessary.

---

## 6.5 scwbackup

### Name

[Windows Manager]  
*Installation\_folder*\SVROR\Manager\bin\scwbackup - Backup of image file information

[Linux Manager]  
*/opt/FJSVrcvmr/bin/scwbackup* - Backup of image file information

### Format

`scwbackup [-dir directory] [[-immediate] | [-timeout value]]`

### Description

scwbackup is the command used for backing up the image file information of Resource Orchestrator.

This command backs up the following image file information of Resource Orchestrator using this command for restoration in case ServerView Deployment Manager information is damaged:

- System Images and Cloning Images

All objects in the specified folder or directory are targeted. Objects linked with shortcuts or symbolic links are not backed up.

Table 6.3 List of Items for Backup/Restore [Windows Manager]

No	Overview	Item
1	System images	<i>Image file storage folder</i> \Managed server name@0@0@Management information@Management information@Version
2	Cloning images	<i>Image file storage folder</i> \Cloning image name@Version

*Image\_file\_storage\_folder* is The\_value\_of\_imagedir\_displayed\_by\_executing\_the\_rcxadm imagemgr\_info\_command\Cloneimg.

Table 6.4 List of Items for Backup/Restore [Linux Manager]

No	Overview	Item
1	System images	<i>Image_file_storage_directory</i> /Managed server name@0@0@Management information@Management information@Version
2	Cloning images	<i>Image_file_storage_directory</i> /Cloning image name@Version

*Image\_file\_storage\_directory* is *The\_value\_of\_imagedir\_displayed\_by\_executing\_the\_rcxadm imagemgr\_info\_command/CLONEIMG.*

- Image file related information

**Table 6.5 List of Items for Backup/Restore [Windows Manager]**

No	Overview	Item
1	Registry	<ul style="list-style-type: none"> <li>- For 32-bit operating systems HKEY_LOCAL_MACHINE\SOFTWARE\Fujitsu\SystemcastWizard</li> <li>- For 64-bit operating systems (*1) HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Fujitsu\SystemcastWizard</li> </ul>
2	Database	<i>Installation_folder</i> \ScwPro\scwdb\scwdb1.mdb <i>Installation_folder</i> \ScwPro\scwdb\scwdb1.mdw
3	DHCP configuration information file	<i>Installation_folder</i> \ScwPro\bin\ipTable.dat
4	IP address configuration file	<i>Installation_folder</i> \ScwPro\bin\localipaddress.txt
5	Awwn definition file (*2)	<i>Installation_folder</i> \ScwPro\tftp\rcbootimg\awwn_IP_address.cfg <i>Installation_folder</i> \ScwPro\tftp\rcbootimg\_awwn_IP_address.cfg
6	BROADCAST configuration file for client connection requests	<i>Installation_folder</i> \ScwPro\bin\bcastaddress.txt

\*1: For 64-bit operating systems, it is redirected to Wow6432Node.

\*2: In VIOM environments, this file does not exist.

**Table 6.6 List of Items for Backup/Restore [Linux Manager]**

No	Overview	Item
1	Configuration file	/etc/opt/FJSVscw-common/scwconf.reg
2	Database	/var/opt/FJSVscw-deploysv/scwdb/scwdb1.db /var/opt/FJSVscw-deploysv/scwdb/scwdb2.db
3	DHCP configuration information file	/var/opt/FJSVscw-pxesv/ipTable.dat
4	bootcfg configuration file (*1)	/etc/opt/FJSVscw-pxesv/ClientBoot/*
5	Awwn definition file (*2)	/var/opt/FJSVscw-tftpsv/tftproot/rcbootimg/awwn_IP_address.cfg /var/opt/FJSVscw-tftpsv/tftproot/rcbootimg/_awwn_IP_address.cfg
6	BROADCAST configuration file for client connection requests	/opt/FJSVscw-deploysv/sys/bcastaddress.txt

\*1: All objects in the specified directories are targeted. Objects linked using symbolic links are not backed up.

\*2: In VIOM environments, this file does not exist.

Image file information cannot be backed up while an image operation is being performed for a VM host.

Backup of image file information is only performed when no operation is being executed.

When executing the command while the manager is running, backup will be performed after the operations are completed.

When this command is executed while the manager is stopped, this command will be returned regardless of the presence or absence of the specified options. Completion of operations being executed will not be waited for.

## Options

### -dir *directory*

In *directory*, specify a folder or a directory to back up the image file information of Resource Orchestrator. Network driver cannot be specified as a directory when backup is online.

If previous backup information remains in the specified folder or directory, the previous backup information will be reused in the backup operation for system images and cloning images.

When this option is omitted, if the destination is defined in the following definition file, the information is saved in the specified folder or directory:

[Windows Manager]

*Installation\_folder*\SVROR\Manager\etc\customize\_data\Manager\_backup.rcxprop

[Linux Manager]

/etc/opt/FJSVrcvmr/customize\_data/manager\_backup.rcxprop

If the destination is not defined, the information is saved in the following folder or directory:

[Windows Manager]

*Installation\_folder*\SVROR\Manager\var\backup

[Linux Manager]

/var/opt/FJSVrcvmr/backup

### -immediate

Use this option to return directly to the command prompt without waiting for the operation being executed on the admin server to complete its execution.

Backup can only be performed when no operation is being executed for the resources. If an operation is being executed, this command will return an error.

### -timeout *value*

Use this option to wait the number of seconds specified in *value* for completion of the image operation being performed on the admin server. If the operation is not completed within the specified time, this command will return an error.

If this option is omitted, the default value (3600 seconds) is set.

When this command is periodically executed while the manager is operating, if heavy operations such as cloning image collection are ongoing, execution of the command will be delayed until the relevant operation is completed. Specify this option to terminate execution of the command within a fixed time.

When an operation is being executed on the admin server, "INFO: Manager operation is still running." is displayed periodically.

If this command is executed when the manager has been stopped, the specification of this option will be ignored.

## Requirements

### Permissions

- OS Administrator
- Resource Orchestrator Privileged User

### Location

Admin server

## Examples



```
>scwbackup -dir /scwdir0 -immediate <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.



- When specifying folders or directories, take note of the following points:
  - Do not specify the system installation folder or the installation directory for the -dir option.
  - Do not use double-byte characters or the following symbols to specify folders or directories for the -dir option.  
""", "|", ":", "?", "<", ">", " ", "%", "&", "^", "=", "!", ";",  
[Windows Manager]  
"/"  
[Linux Manager]  
"\"
  - The folder path or directory path can be specified using up to 100 characters.
  - For restoration, the certificates, configuration definition information, OS property definition files, system images, and cloning images must have been backed up at the same point in time. It is recommended to store the backed up information in folders with names including the date and time of backup.
- For the -timeout option, "172800" or less seconds can be specified.
- Do not stop or start the manager during execution of this command.
- If this command fails, a folder or a directory that has a name starting with tmp will be created in the folder or directory specified for the -dir option.  
If the problem is still not resolved after performing the actions based on the output error message, collect the folder or the directory as troubleshooting data, and contact Fujitsu technical staff.  
Delete these folders or directories after collecting the troubleshooting data.

## 6.6 scwrestore

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### Name

[Windows Manager]

*Installation\_folder*\SVROR\Manager\bin\scwrestore - Restoration of image file information

[Linux Manager]

/opt/FJSVrcvmr/bin/scwrestore - Restoration of image file information

### Format

`scwrestore -dir directory`

## Description

scwrestore is the command used for restoration of image file information of Resource Orchestrator.

## Options

-dir *directory*

In *directory*, specify a directory name created as a result of collection using the backup command.

## Requirements

Permissions

- OS Administrator
- Resource Orchestrator Privileged User

Location

Admin server

## Examples

```
>scwrestore -dir /scwdir0/mgr_20110123_1159 <RETURN>
```

## Exit Status

This command returns the following values:

0

The command executed successfully.

non-zero

An error has occurred.



- This command deletes everything in the folder or directory that is the target of Backup/Restore when it is executed, and then restores the backup specified with the -dir option.
- When specifying files, take note of the following points:
  - Do not use double-byte characters or the following symbols to specify folders or directories for the -dir option.  
""", "|", "\*", "?", "<", ">", ",", "%", "&", "^", "=", "!", ";",  
[Windows Manager]  
"/"  
[Linux Manager]  
"\
  - The folder path or directory path can be specified using up to 100 characters.
- Do not stop or start the manager during execution of this command.
- If this command fails, a folder or a directory that has a name starting with tmp will be created in the folder or directory specified for the -dir option.  
If the problem is still not resolved after performing the actions based on the output error message, collect the folder or the directory

as troubleshooting data, and contact Fujitsu technical staff.

Delete these folders or directories after collecting the troubleshooting data.

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# Index

---

[D]  
deployment\_service\_uninstall..... 29

[M]  
macbindconfig..... 55

[R]  
rexadm agtctl..... 30  
rexadm authctl..... 32  
rexadm certctl..... 36  
rexadm chassis..... 8  
rexadm dbctl..... 38  
rexadm deployctl..... 39  
rexadm eventctl..... 40  
rexadm image..... 22  
rexadm imagemgr..... 42  
rexadm lanctl..... 45  
rexadm license..... 46  
rexadm mgrctl..... 47  
rexadm server..... 9  
rexadm servermgr..... 51  
rexadm storagemgr..... 53  
rexbackup..... 57  
rexkeydefbackup..... 59  
rexkeydefrestore..... 62  
rexlogin..... 5  
rexrestore..... 63

[S]  
scwbackup..... 65  
scwrestore..... 68