FUJITSU

FUJITSU Software Systemwalker Software Configuration Manager

Operation Guide

Windows/Linux

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Preface

Purpose of this Document

This document explains how to use the different features and functions required to operate Systemwalker Software Configuration Manager V15.2.0.

Intended Readers

This document is intended for those who want to understand the operating procedures of Systemwalker Software Configuration Manager.

It is assumed that readers of this document already have the following knowledge:

- Basic knowledge of the operating system being used

Structure of this Document

The structure of this document is as follows:

Chapter 1 Operation Overview

This chapter explains the operator tasks and workflow for Systemwalker Software Configuration Manager.

Chapter 2 Operation Setup

This chapter explains how to set up Systemwalker Software Configuration Manager operations.

Chapter 3 Starting and Stopping Systemwalker Software Configuration Manager

This chapter explains how to start and stop Systemwalker Software Configuration Manager.

Chapter 4 Maintenance

This chapter explains relevant maintenance information (such as log output and backup/restore).

Appendix A Job Management

This chapter explains how to use commands to check the execution status of patch application, patch distribution, parameter setting, or script execution.

Conventions Used in this Document

Refer to the *Documentation Road Map* for information on the names, abbreviations, and symbols used in this manual.

Abbreviations and Generic Terms Used for Operating Systems

This document uses the following abbreviations and generic terms to indicate operating systems.

Official name	Abbreviation	
Microsoft(R) Windows Server(R) 2012 Datacenter Microsoft(R) Windows Server(R) 2012 Standard	Windows Server 2012	Windows
Microsoft(R) Windows Server(R) 2012 R2 Datacenter Microsoft(R) Windows Server(R) 2012 R2 Standard	Windows Server 2012 R2	
Microsoft(R) Windows Server(R) 2008 Standard Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V Microsoft(R) Windows Server(R) 2008 Enterprise Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V	Windows Server 2008	

Official name	Abbreviation	
Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise	Windows Server 2008 R2	
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 Server 2003 R2	
Red Hat(R) Enterprise Linux(R) (for x86)	RHEL (x86)	RHEL
Red Hat(R) Enterprise Linux(R) (for Intel64)	RHEL (Intel64)	

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Contents

Chapter 1 Operation Overview 1
1.1 Operation Flow 1
1.1.1 Windows Patch Management 1
1.1.2 Linux Patch Management 4
1.1.3 Fujitsu Middleware Patch Management 7
1.1.4 Software Parameter Management 11
1.1.5 Configuration Management 14

Chapter 2 Operation Setup 16
2.1 User Management 16
2.1.1 Registering a User 17
2.1.2 Changing the Password 17
2.1.3 Updating a User 17
2.1.4 Moving a User 17
2.1.5 Deleting a User 17
2.2 Tenant Management 18
2.2.1 Registering a Tenant 18
2.2.2 Updating a Tenant 19
2.2.3 Deleting a Tenant 19
2.3 L-Platform Management 19
2.3.1 Registering an L-Platform 19
2.3.2 Updating an L-Platform 20
2.3.3 Moving an L-Platform 20
2.3.4 Changing an L-Platform Owner 21
2.3.5 Deleting an L-Platform 21
2.4 Server Management 21
2.4.1 Registering a Server 22
2.4.2 Updating a Server 23
2.4.3 Deleting a Server 23
2.4.4 Managing a Server Managed by Systemwalker Runbook Automation 23
2.5 Setup for Patch Management 25
2.5.1 Setting up Patch Management Policies for Windows Operating Systems and Fujitsu Middleware 25
2.5.2 Defining the Linux Patch Management Target 27
2.6 Creating Scripts 28
2.6.1 Creating a Fujitsu Middleware Patch Application Script 29
2.7 Parameter Value Settings 31
2.7.1 Predefined Parameters 31
2.8 Editing Email Template Files 32
2.8.1 Email Template Files (for OS Patches) 32
2.8.2 Email Template Files (for Fujitsu Middleware Patches) 32
2.8.3 Email Template Files (for Processing) 32
2.9 Notification Settings in the Management Console 34

Chapter 3 Starting and Stopping Systemwalker Software Configuration Manager 35
3.1 Starting Systemwalker Software Configuration Manager 35
3.2 Stopping Systemwalker Software Configuration Manager 36
3.3 Checking the Status of Systemwalker Software Configuration Manager 37

Chapter 4 Maintenance 38
4.1 Log Output 38
4.1.1 Logs Output on the Admin Server 38
4.1.1.1 Log Output Destination 39

4.1.1.2 Output Format for Audit Logs....39
4.1.1.3 Investigation Logs....43
4.1.1.4 Event Logs or syslogs....45
4.1.2 Logs Output on the Business Server....45
4.1.2.1 Log Output Destination....46
4.1.3 Audit Logs for CMDB....46
4.1.4 Audit Logs for Job Management....47
4.2 Backing Up and Restoring the Admin Server....50
4.2.1 Notes on Backup and Restoration....50
4.2.2 Backing Up the Admin Server....52
4.2.2.1 Required Disk Space for Backup....52
4.2.2.2 Backing Up User Information....54
4.2.2.3 Backing Up Systemwalker Runbook Automation Assets....54
4.2.2.4 Backing Up ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)....54
4.2.2.5 Backing Up User Assets....54
4.2.2.6 Backing up the Media Library....54
4.2.3 Restoring the Admin Server....55
4.2.3.1 Restoring User Information....56
4.2.3.2 Restoring Systemwalker Runbook Automation Assets....56
4.2.3.3 Restoring ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)....56
4.2.3.4 Restoring User Assets....56
4.2.3.5 Restoring the Media Library....57
4.2.3.6 Updating to the Latest Configuration Information....57
4.3 Changing the Systemwalker Software Configuration Manager Environment....58
4.3.1 Changing the Operating Environment for WSUS....58
4.3.2 Changing the Configuration of the yum Repository Server....59
4.3.3 Changing Discovery Schedules and Configuration Baseline Creation Schedules....60
4.3.4 Migrating the Media Library....63
4.3.5 Changing Passwords of Users who Use this Product....64
4.3.5.1 Changing the Password of a User for Process Control....64
4.3.5.2 Changing the Password of a User for Schedule Startup....65
4.3.5.3 Changing the Password of an LDAP Administrator DN....66
4.3.6 Changing Passwords of Operating System Users who Use this Product....66
4.3.6.1 Changing the Password for swcfmgdb....67
4.3.6.2 Changing the Password for swrbadbuser and swrbajobuser....67
4.4 Checking the Execution of Regular Discovery....68
4.5 Checking the Execution of Configuration Baseline Creation....68
4.6 Installing Updates on Systemwalker Software Configuration Manager....69
4.6.1 Checking Update Information....69
4.6.2 Installing Updates on the Admin Server....70
4.6.3 Installing Updates on the Linkage Server....71
4.6.4 Installing Updates on the Business Server....71

Appendix A Job Management....73
A.1 Jobs....73
A.2 Processes....76
A.3 Action....79

Chapter 1 Operation Overview

This chapter presents an overview of Systemwalker Software Configuration Manager operations.

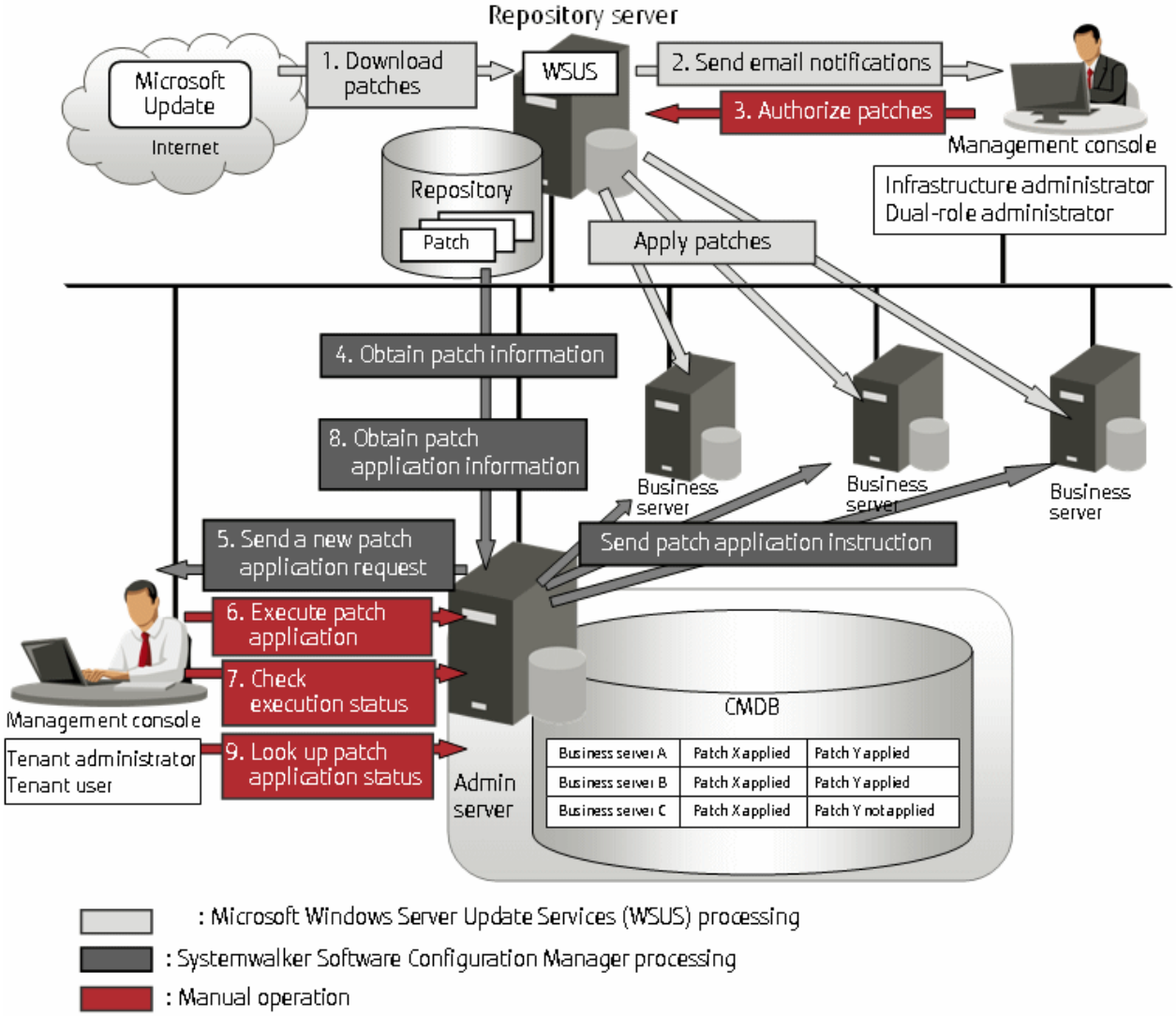
1.1 Operation Flow

This section explains the operation flow for each role.

1.1.1 Windows Patch Management

Windows patches are managed by linking to WSUS. The following diagram shows the overall flow of Windows patch management.

Figure 1.1 Overview of Windows patch management



1. Download patches **[processing by WSUS]**

   Use the WSUS function to synchronize with the Microsoft Update site and obtain the latest patch information.

2. Send email notifications to the infrastructure administrator **[processing by WSUS]**

   By setting up the WSUS email notification function, a synchronized message about new patches will be sent to the infrastructure administrator from WSUS via email.

3. Authorize new patches **[operation by the infrastructure administrator]**

   The infrastructure administrator performs authorization processing for the new patches using WSUS.

4. Obtain patch information **[processing by Systemwalker Software Configuration Manager]**

   Systemwalker Software Configuration Manager extracts information about new patches from WSUS and the management information on WSUS, and stores both sets of information in the CMDB.
   Patch information can be acquired either automatically or manually (using a command).

5. Send a new patch application request **[processing by Systemwalker Software Configuration Manager]**

   When a new patch is authorized on WSUS, an email is automatically sent to each tenant user and each tenant administrator requesting that they apply the new patch.

6. Execute patch application **[operation by the tenant user or the tenant administrator]**

   Either the tenant user or the tenant administrator logs in to the management console and applies the new patch.

Point

- Patches are distributed by WSUS. Once patch application completes, application information is sent to WSUS.
- Even if a new patch is displayed in the management console, a notification about the new patch may not have been sent to business servers, or the patch may not have been downloaded to business servers, depending on the schedule settings for WSUS. Check the schedule settings for WSUS.

7. Check execution status **[operation by the infrastructure administrator, the tenant administrator, or the tenant user]**

   Check the patch application status using the management console or the job information management command.

8. Obtain patch application information **[processing by Systemwalker Software Configuration Manager]**

   Systemwalker Software Configuration Manager extracts patch application information from WSUS and stores it in the CMDB.

9. Look up patch application status

   The infrastructure administrator, dual-role administrator, tenant administrator and tenant user log in to the management console and check the patch application status.

The following table explains the operation flow for each role:

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
1	Download patches	Y	Y	-	-	Refer to the WSUS manuals.
2	Send email notifications to infrastructure administrators	-	-	-	-	Refer to the WSUS manuals.
3	Authorize new patches	Y	Y	-	-	Refer to the WSUS manuals.
4	Obtain patch information	Y	Y	-	-	"Patch Information Update Command" in the *Reference Guide*
5	Send new patch application requests	-	-	-	-	An email is sent automatically when a new patch is acquired.

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
						If email transmission fails, either an infrastructure administrator or a dual-role administrator must resend the email using the email resend command as described in the *Reference Guide*.
6	Execute patch application	-	Y	Y	Y	"Patch Management" in the *Operator's Guide*
7	Check execution status	Y	Y	Y (*1)	Y (*1)	Check the patch application execution status using the **Task Management** window on the management console (refer to "Task Management" in the *Operator's Guide* for details), or the job information management command (refer to "swcfmg_job (Job Information Management Command)" in the *Reference Guide* for details).
8	Obtain patch application information	Y	Y	-	-	"Patch Information Update Command" in the *Reference Guide*
9	Reference patch application status	Y	Y	Y	Y	"Patch Management" in the *Operator's Guide*

Y: Implement the task.

-: Do not implement the task

*1: Only the **Task Management** window can be operated.

Note

Notes on linking to WSUS

- Immediately after WSUS linkage is set up on a business server

  To perform patch management, register the business servers subject to patch management as the computers managed by WSUS. WSUS can only start managing a business server once it has been notified of the software configuration information from the business server. If discovery is performed before WSUS is notified about the business server information, it will not be possible for WSUS to collect information for that business server because information about the business server has not yet been registered with WSUS. If the business server is displayed in the **All Computers** group in the **WSUS console** window and a time is displayed in the **Last Status Report** column, the software configuration information for the business server has finished being notified to WSUS. Do not perform discovery until the software configuration information for the business server has been notified to WSUS. Perform discovery by executing the swcfmg_patch_updateinfo command.

  If this command is not executed, discovery will be executed at the next scheduled regular discovery.

  Example:

  ```
  swcfmg_patch_updateinfo.exe -repository
  ```

- If a business server has been added or removed as the computer managed by WSUS

  If a business server has been added or removed as the computer managed by WSUS, or if a business server that is already under the management of one WSUS service is moved to a location under the management of another WSUS service, do not perform discovery until the changes to the WSUS operation environment have completed and the software configuration information for the business server has been notified to WSUS. (If the business server is displayed in the **All Computers** group in the **WSUS console** window and a time is displayed in the **Last Status Report** column, the software configuration information for the business server has finished being notified to WSUS). Perform discovery by executing the swcfmg_patch_updateinfo command.

  If this command is not executed, discovery will be executed at the next scheduled regular discovery.

  Example:

  ```
  swcfmg_patch_updateinfo.exe -repository
  ```

- If WSUS server cleanup has been performed

  If the disk used by the WSUS service is full, redundant patches and patch information managed by WSUS can be deleted using a WSUS server cleanup. If a server cleanup has been performed, execute the swcfmg_patch_updateinfo command with the "-cleanup" option specified.

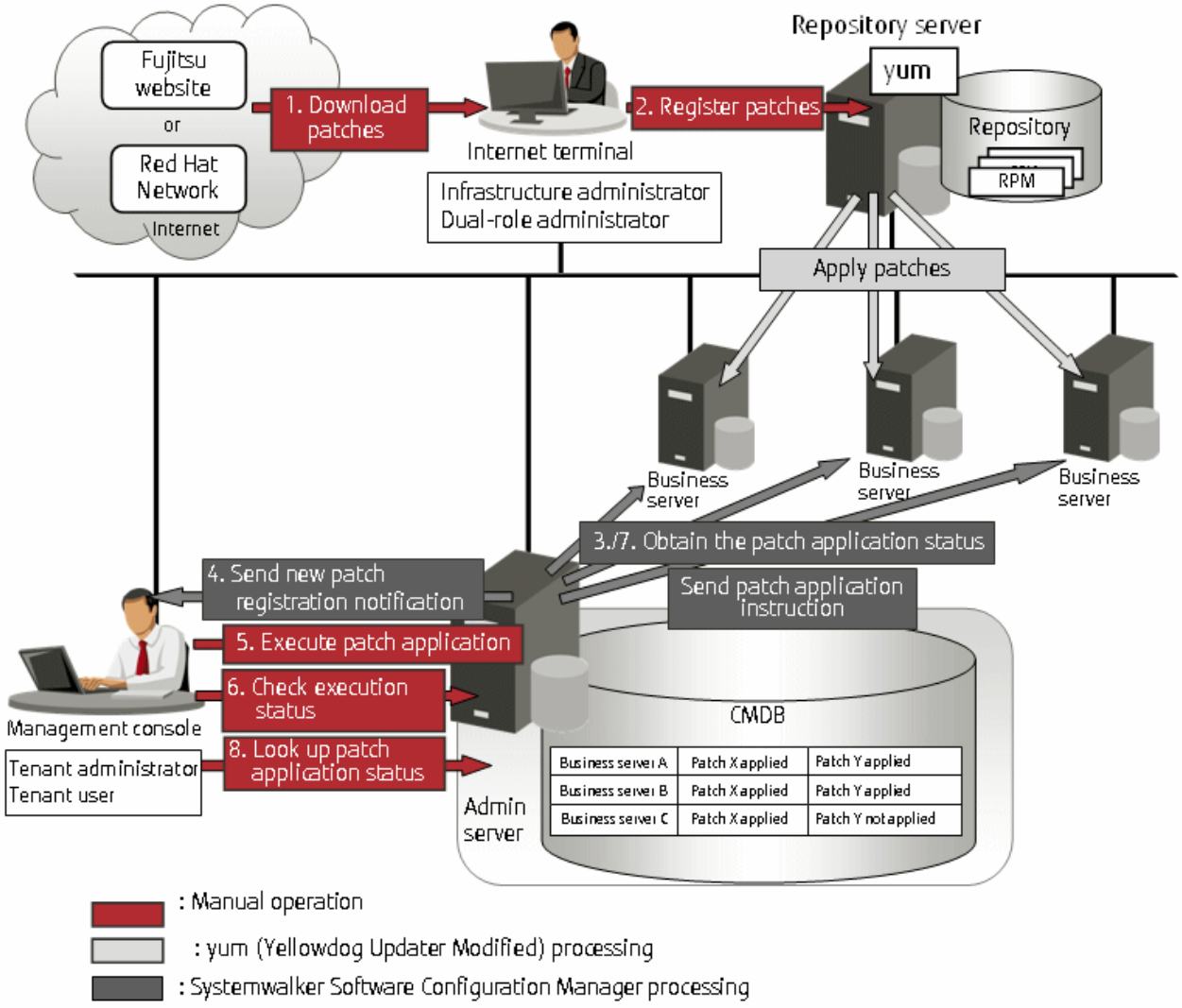
  Example:

  ```
  swcfmg_patch_updateinfo.exe -repository -cleanup
  ```

1.1.2 Linux Patch Management

Linux patches are managed by linking to Yellowdog Updater Modified (yum). The following diagram shows the overall flow of Linux patch management:

Figure 1.2 Overview of Linux patch management



1. Download patches **[operation by the infrastructure administrator]**

   The infrastructure administrator uses the Internet terminal to download the latest patches (RPM packages) from either the Fujitsu website or the Red Hat Network.

2. Register patches **[operation by the infrastructure administrator]**

   The infrastructure administrator registers the patches (RPM packages) with the yum repository server. The infrastructure administrator then defines these patches as part of the Linux patch management target.
   If patches have been added to or removed from the yum repository server, define the Linux patch management target again and then execute the yum cache cleanup notification command.

3. Obtain the patch application status **[processing by Systemwalker Software Configuration Manager]**

   Systemwalker Software Configuration Manager extracts information about which RPM packages have been applied or can be applied from each server, and then registers this information in the CMDB.

   RPM package information can be obtained either automatically or manually (using a command).

4. Send new patch registration notifications **[processing by Systemwalker Software Configuration Manager]**

   When Systemwalker Software Configuration Manager detects a new patch, an email is automatically sent to each tenant user and each tenant administrator, notifying them that the new patch has been registered.

5. Execute patch application **[operation by the tenant user or the tenant administrator]**

   Either the tenant user or the tenant administrator logs in to the management console and applies the new patch.

6. Check execution status **[operation by the infrastructure administrator, the tenant administrator. or the tenant user]**

   Check the patch application status using the management console or the job information management command.

7. Obtain patch application information **[processing by Systemwalker Software Configuration Manager]**

   Systemwalker Software Configuration Manager extracts patch application information from each server and stores it in the CMDB.

8. Look up patch application status

   The infrastructure administrator, dual-role administrator, tenant administrator and tenant user log in to the management console and check the patch application status.

The following table explains the operation flow for each role.

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
1	Download patches	Y	Y	-	-	Refer to the yum manuals.
2	Register patches	Y	Y	-	-	Refer to the yum manuals for information on how to register patches (RPM packages). Refer to "2.5.2 Defining the Linux Patch Management Target" for information on how to define the Linux patch management target. Refer to "yum Cache Cleanup Notification Command" in the *Reference Guide* for information on the yum cache cleanup notification command.
3	Obtain patch application status	Y	Y	-	-	"Patch Information Update Command" in the *Reference Guide*
4	Send new patch registration notification	-	-	-	-	An email is sent automatically when a new patch is registered. If email transmission fails, either an infrastructure administrator or a dual-role administrator must resend the email using the email resend command as described in the *Reference Guide*.
5	Execute patch application	-	Y	Y	Y	"Patch Management" in the *Operator's Guide*
6	Check execution status	Y	Y	Y (*1)	Y (*1)	Check the patch application execution status using the **Task Management** window on the management console (refer to "Task Management" in the *Operator's Guide* for details), or the job information management

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
						command (refer to "swcfmg_job (Job Information Management Command)" in the *Reference Guide* for details).
7	Obtain patch application status	Y	Y	-	-	"Patch Information Update Command" in the *Reference Guide*
8	Reference patch application status	Y	Y	Y	Y	"Patch Management" in the *Operator's Guide*

Y: Implement the task.

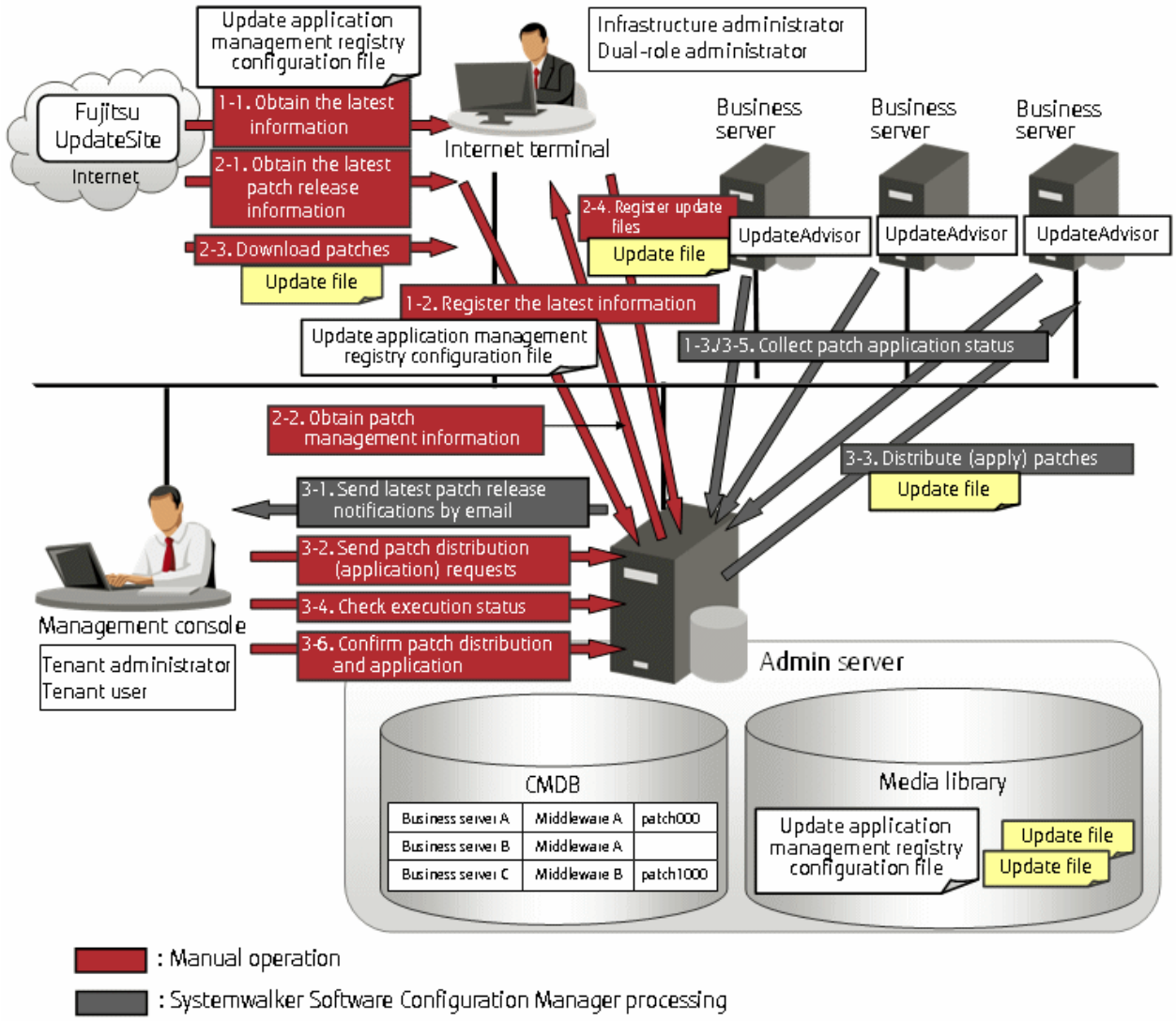
-: Do not implement the task

*1: Only the **Task Management** window can be operated.

1.1.3 Fujitsu Middleware Patch Management

Fujitsu middleware patches are managed by linking to the UpdateAdvisor (middleware). The following diagram shows the overall flow of Fujitsu middleware patch management:

Figure 1.3 Overview of Fujitsu middleware patch management



1. Obtain Fujitsu middleware information, and perform discovery

   Obtain the update application management registry configuration file from the UpdateSite and collect the latest patch application status. The update application management registry configuration file must be updated to collect the latest patch application status. During operation, also obtain the latest application management registry configuration file from the UpdateSite.

   1. Obtain the latest information (the update application management registry configuration file) **[operation by the infrastructure administrator]**

      The infrastructure administrator uses the Internet terminal to download the latest update application management registry configuration file from the UpdateSite.

   2. Register the latest information (the update application management registry configuration file) **[operation by the infrastructure administrator]**

      The infrastructure administrator uses the UpdateAdvisor asset registration command on the admin server to store the latest update application management registry configuration file in the media library.

   3. Collect patch application status information **[processing by Systemwalker Software Configuration Manager]**

      Systemwalker Software Configuration Manager uses the update application management registry configuration file (that has been registered) to collect patch application status information from each business server.

2. Obtain Fujitsu middleware patches

   Obtain Fujitsu middleware patches from the UpdateSite and store in the media library. Patches stored in the media library can be distributed (applied) to the business servers.

   1. Obtain the latest patch release information **[operation by the infrastructure administrator]**

      The infrastructure administrator looks up email notifications from FSC-NEWS (SupportDesk customer notifications) and the UpdateSite (the website for the Fujitsu SupportDesk) to obtain information about the latest patches that have been released.

   2. Obtain patch management information **[operation by the infrastructure administrator]**

      The infrastructure administrator uses the patch management information acquisition command on the admin server to obtain the patch management information.

      The infrastructure administrator copies the patch management information and released patch acquisition tool obtained from the admin server to the Internet terminal.

   3. Download patches **[operation by the infrastructure administrator]**

      The infrastructure administrator uses the released patch acquisition tool on the Internet terminal to download newly released patches from the UpdateSite.

   4. Register update files **[operation by the infrastructure administrator]**

      The infrastructure administrator uses the Fujitsu middleware patch registration command on the admin server to store the downloaded files in the media library.

3. Check the distribution and application of Fujitsu middleware patches

   Distribute (apply) the Fujitsu middleware patches that were stored in the media library.

   1. Send latest patch release notifications by email **[processing by Systemwalker Software Configuration Manager]**

      The tenant administrator and tenant user receive an email notification from Systemwalker Software Configuration Manager informing them that the latest patches have been released.

   2. Send patch distribution/application requests **[operation by the tenant user or the tenant administrator]**

      Either the tenant user or the tenant administrator uses the management console to distribute the latest patches to business servers.

      Also, to apply Fujitsu middleware patches, a script specifying the application processing must be created and then registered as a post-execution script.

   3. Distribute/apply patches **[processing by Systemwalker Software Configuration Manager]**

      Systemwalker Software Configuration Manager distributes the specified patches to the specified business servers.

      If an application script has been registered, Systemwalker Software Configuration Manager also applies the patches by executing the application script. If an application script has not been registered, log on directly to the business server and apply the patches manually..

   4. Check execution status **[operation by the infrastructure administrator, the tenant administrator, or the tenant user]**

      Check the patch application status using the management console or the job information management command.

   5. Collect patch application status information **[processing by Systemwalker Software Configuration Manager]**

      Systemwalker Software Configuration Manager uses the update application management registry configuration file (that has been registered) to collect patch application status information from each business server.

   6. Confirm patch distribution/application

      The infrastructure administrator, dual-role administrator, tenant administrator and tenant user log in to the management console to check the patch application status.

The following table explains the operation flow for each role.

		Operation flow	User roles				Reference
			Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
1	1	Obtain the latest information (the update application management registry configuration file)	Y	Y	-	-	Refer to the UpdateAdvisor (middleware) manuals.
	2	Register the latest information (the update application management registry configuration file)	Y	Y	-	-	Refer to "UpdateAdvisor Asset Registration Command" in the *Reference Guide*.
	3	Collect patch application status information	Y	Y	-	-	"Patch Information Update Command" in the *Reference Guide*
2	1	Obtain the latest patch release information	Y	Y	-	-	Refer to the email notifications from FSC-NEWS (SupportDesk customer notifications) and the information available from the UpdateSite (the Fujitsu SupportDesk website).
	2	Obtain patch management information	Y	Y	-	-	Refer to "Patch Management Information Acquisition Command" in the *Reference Guide*.
	3	Download the latest patches	Y	Y	-	-	Refer to "Released Patch Acquisition Tool" in the *Reference Guide*.
	4	Register update files	Y	Y	-	-	Refer to "Fujitsu Middleware Patch Registration Command" in the *Reference Guide*.
3	1	Send latest patch release notifications by email	-	-	-	-	An email is sent automatically when a new patch is acquired. If email transmission fails, either an infrastructure administrator or a dual-role administrator must resend the email using the email resend command as described in the *Reference Guide*.
	2	Send patch distribution/ application) requests	-	Y	Y	Y	Refer to "2.6 Creating Scripts" for information on application scripts. Refer to "Patch Management" in the *Operator's Guide* for information on the Patch Application Wizard. Refer to the UpdateAdvisor (middleware) manual for information on how to apply patches manually.

		Operation flow	User roles				Reference
			Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
	3	Distribute/apply patches	-	-	-	-	-
	4	Check execution status	Y	Y	Y (*1)	Y (*1)	Check the patch distribution (application) execution status using the **Task Management** window on the management console (refer to "Task Management" in the *Operator's Guide* for details), or the job information management command (refer to "swcfmg_job (Job Information Management Command)" in the *Reference Guide* for details).
	5	Collect patch application status information	Y	Y	-	-	"Patch Information Update Command" in the *Reference Guide*
	6	Confirm patch distribution/application	Y	Y	Y	Y	"Patch Management" in the *Operator's Guide*

Y: Implement the task.

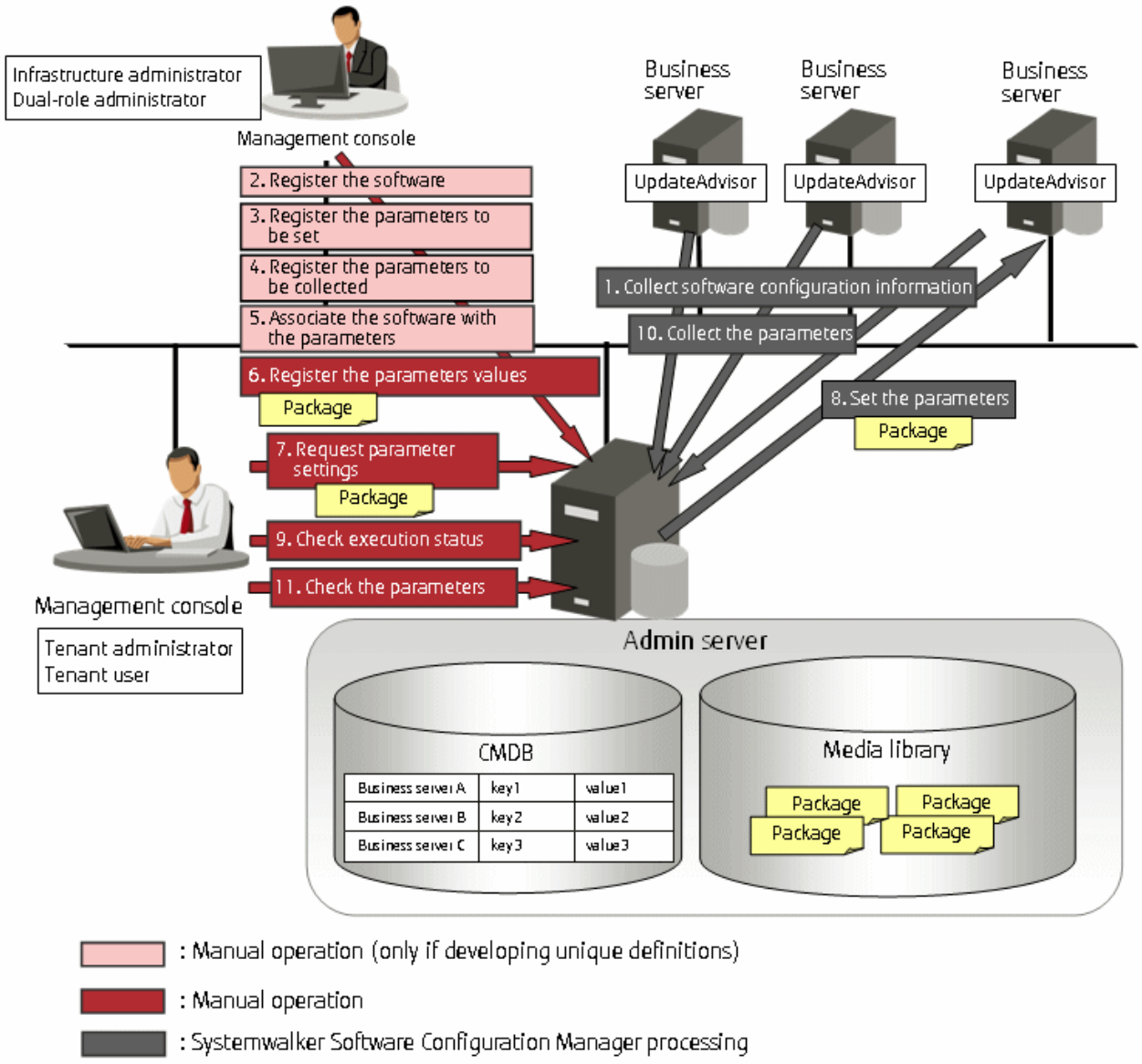
-: Do not implement the task

*1: Only the **Task Management** window can be operated.

1.1.4 Software Parameter Management

The following diagram shows the overall flow of software parameters management.

Collect information on installed Fujitsu middleware using UpdateAdvisor (middleware).



1. Collect software configuration information **[Systemwalker Software Configuration Manager]**

   Perform discovery on the managed servers to collect information on installed Fujitsu middleware. Fujitsu middleware information is collected by UpdateAdvisor (middleware).

2. Register the software **[operation by the infrastructure administrator]**

   If managing software that is not compatible with UpdateAdvisor (middleware), use commands to register information about the software installed on the managed servers.

3. Register the parameters to set **[operation by the infrastructure administrator]**

   The infrastructure administrator defines the parameters to set in the software. Specify the list of parameters, and the scripts to set the parameters, using the parameter setting definition. Use commands to register the parameter setting definition.

   This step is not required if using the parameter setting definition pre-registered in this product.

4. Register the parameters to be collected **[operation by the infrastructure administrator]**

   The infrastructure administrator defines the parameters to be collected from the software. Specify the list of parameters, and the scripts to collect the parameters, using the parameter collection definition. Use commands to register the parameter collection definition.

This step is not required if using the parameter collection definition pre-registered in this product.

5. Associate the software with the parameters **[operation by the infrastructure administrator]**

   The infrastructure administrator associates the parameter setting definition and the parameter collection definition with the software. The software is associated with the parameters using commands.

   This step is not required if using the software definition pre-registered in this product.

6. Register the parameters values **[operation by the infrastructure administrator]**

   The infrastructure administrator can define the values to be set in the parameters as predefined parameters. Predefined parameters are convenient to use when the user needs to configure the same value numerous times, or when a set of values to configure has been predetermined. Files, as well as values, can be specified in parameters. Use commands to register predefined parameters. Note that files can also be registered as packages.

7. Request parameter settings **[operation by the tenant administrator or the tenant user]**

   Either the tenant administrator or the tenant user logs in to the management console and requests parameter settings. Notifications that a request has been received, completed, or has ended in an error, are received by email.

8. Set the parameters **[processing by Systemwalker Software Configuration Manager]**

   Systemwalker Software Configuration Manager configures the specified parameters in the managed servers.

9. Check execution status **[operation by the infrastructure administrator, the tenant administrator, or the tenant user]**

   Check the parameter setting status using the management console or the job information management command.

10. Collect the parameters **[processing by Systemwalker Software Configuration Manager]**

    Perform discovery on the managed servers to collect the software parameters. Files, as well as parameter values, can be collected.

11. Check the parameters **[operation by the infrastructure administrator, tenant administrator or the tenant user]**

    Infrastructure administrators, tenant users, and tenant administrators log in to the management console to check the parameters.

The following table explains the operation flow for each role.

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
1	Collect software configuration information	Y	Y	-	-	1.1.3 Fujitsu Middleware Patch Management
2	Register the software	Y	Y	-	-	"Definition of Software Information" in the *Developer's Guide* "Software Information Management Command" in the *Developer's Guide*
3	Register the parameters to set	Y	Y	-	-	"Definition of Parameters to be Set" under "Definition of Parameter Information" in the *Developer's Guide* "Parameter Settings Definition Management Command" in the *Developer's Guide*

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
4	Register the parameters to be collected	Y	Y	-	-	"Definition of Parameters to be Collected" under "Definition of Parameter Information" in the *Developer's Guide* "Parameter Collection Definition Management Command" in the *Developer's Guide*
5	Associate the software with the parameters	Y	Y	-	-	"Association with the Software" under " Definition of Parameter Information" in the *Developer's Guide* "Command to Associate Software and Parameter Definitions" in the *Developer's Guide*
6	Register the parameters values	Y	Y	-	-	2.7 Parameter Value Settings "Predefined Parameter Management Command" in the *Reference Guide*
7	Request parameter settings	-	Y	Y	Y	"Configuration Management" in the *Operator's Guide*
8	Set the parameters	-	-	-	-	-
9	Check execution status	Y	Y	Y (*1)	Y (*1)	Check the parameter setting status using the **Task Management** window on the management console (refer to "Task Management" in the *Operator's Guide* for details), or the job information management command (refer to "swcfmg_job (Job Information Management Command)" in the *Reference Guide* for details).
10	Collect the parameters	Y	Y	-	-	"Parameter Information Update Command" in the *Reference Guide*
11	Check the parameters	Y	Y	Y	Y	"Configuration Management" in the *Operator's Guide*

Y: Implement the task.

-: Do not implement the task

*1: Only the **Task Management** window can be operated.

1.1.5 Configuration Management

To manage server information such as the server names, tenant names, host names, and IP addresses of various servers collected by performing discovery, as well as software configuration information such as information about installed software and applied patches, perform the following tasks from the **Configuration Management** window.

- Looking up software configuration information

  The servers for which information has been collected by the discovery function can be displayed as a list, and detailed information about each individual server can be looked up, including the patch application status for each server. It is also possible to display information that has been filtered by specifying particular conditions.

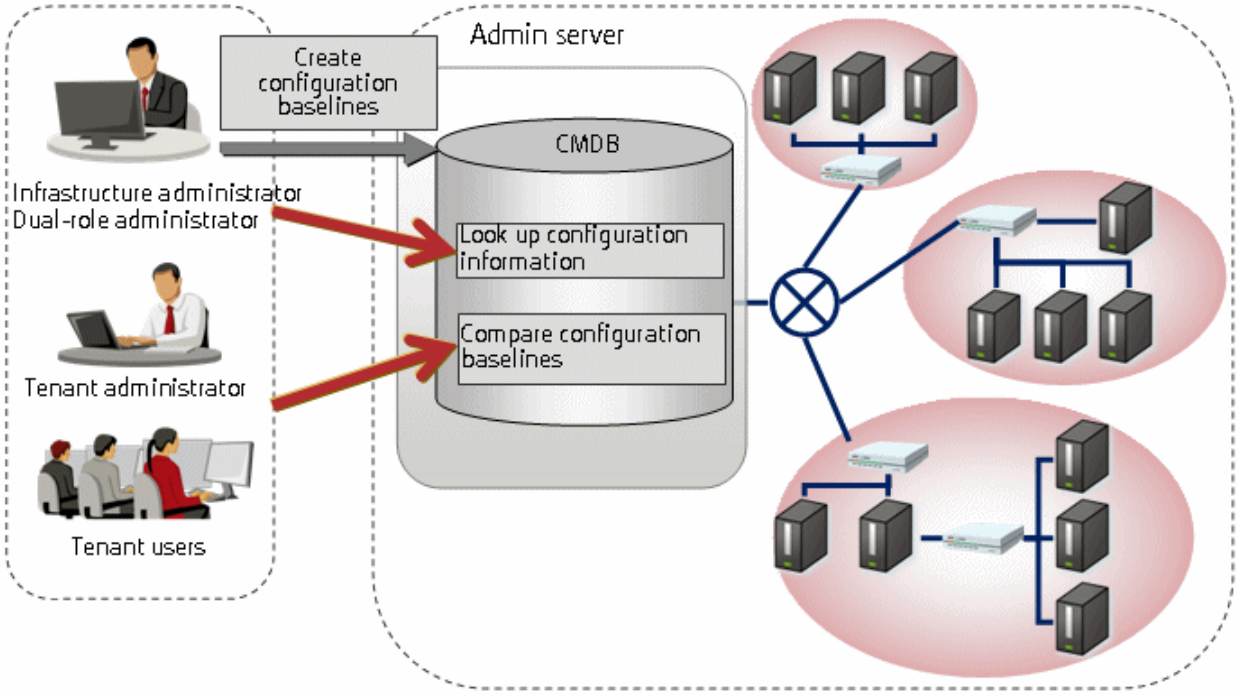
- Comparing configuration baselines

  A configuration baseline is a snapshot of the information collected by the discovery function at a certain moment in time.

  If a problem occurs with a server, it is possible to check which patches have been applied since the server was last running correctly by comparing the current configuration baseline with the configuration baseline at the time when the server was running correctly.

  Configuration baselines are created periodically according to a schedule. Configuration baselines can also be created by the infrastructure administrator.

Figure 1.4 Overview of configuration management



The following table explains the operation flow for each role:

	Operation flow	User roles				Reference
		Infrastructure administrator	Dual-role administrator	Tenant administrator	Tenant user	
1	Create configuration baselines	Y	Y	-	-	"Configuration Baseline Creation Command" in the *Reference Guide*
2	Reference software configuration information	Y	Y	Y	Y	"Configuration Management" in the *Operator's Guide*
3	Compare configuration baselines	Y	Y	Y	Y	"Configuration Management" in the *Operator's Guide*

Y: Implement the task.

-: Do not implement the task

Chapter 2 Operation Setup

This chapter explains how to set up Systemwalker Software Configuration Manager operations.

2.1 User Management

This section explains the following items with regard to managing users:

- Registering a user
- Changing the password
- Updating a user
- Moving a user
- Deleting a user

When linked to ServerView Resource Orchestrator

When linked to ServerView Resource Orchestrator, tasks such as registering a user or changing the password, as well as updating, moving, or deleting a user, should be performed from ServerView Resource Orchestrator. Refer to the following manuals for information on how to perform these tasks using ServerView Resource Orchestrator:

- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators*
- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*

Refer to "Login Users" in the *Operator's Guide* for information on the correspondences between the roles of users registered with ServerView Resource Orchestrator and the roles for Systemwalker Software Configuration Manager.

If an L-Platform owner is deleted

If an L-Platform owner is deleted when linked to ServerView Resource Orchestrator, the following emails will no longer be delivered to that owner:

- Latest patch release notification emails
- Patch application, patch distribution, parameter settings, or script execution event notification emails

In addition, the following messages will be output to the event log/system log and to the standard output:

Event log/system log

CFMGD10003 Unable to send an email to [user:{*userId*}]. [Details:{*details*}]

CFMGD10004 Unable to send an email because the user ID for the administrator cannot be acquired from the IP address [{*ipAddress*}] of the managed server.

Standard output

CFMGC00126 Unable to send an email to [user:{*userId*}]. [Details:{*details*}]

Details

The following message IDs will be output in the details of "CFMGD10003" and "CFMGC00126".

CFMGM20004 User information could not be found. User ID = {*userId*}

CFMGM20006 Unable to send email because an email address has not been set. User ID = {*userId*}

Change the relevant L-Platform owner to another existing user (refer to "Changing an L-Platform Owner" for details).

2.1.1 Registering a User

The following kinds of information can be specified when registering a user with the swcfmg_account command (refer to "swcfmg_account (User Information Management Command)" in the *Reference Guide* for details):

Information	Description
User ID	An ID that uniquely identifies the user.
Password	User password.
Tenant	Tenant to whom the user belongs.
Role	Role of the user.
Email address	Email address of the user.
Surname	Name of the user. Registration of middle names is optional.
Middle name(s)	
Given name	
Telephone number	Registration of the user's telephone number is optional.
Company or organization name	Name of the company or organization to which the user belongs. Registration is optional.

2.1.2 Changing the Password

Use swcfmg_account to change the user password (refer to "swcfmg_account (User Information Management Command)" in the *Reference Guide* for details).

2.1.3 Updating a User

Use swcfmg_account to update user information (refer to "swcfmg_account (User Information Management Command)" in the *Reference Guide* for details).

2.1.4 Moving a User

The tenant to which the user belongs can be changed by moving the user with swcfmg_account (refer to "swcfmg_account (User Information Management Command)" in the *Reference Guide* for details).

If the user is an L-Platform owner, the tenants that belong to that L-Platform will not change. One of the actions below must be performed when moving a user:

- Before moving the user, change the ownership of their L-Platform to one of the current tenants.

  Refer to "Changing an L-Platform Owner" for details.

- After moving the user, move the L-Platform owned by that user to a tenant at the destination.

  Refer to "Moving an L-Platform" for details.

2.1.5 Deleting a User

Use swcfmg_account to delete a user (refer to "swcfmg_account (User Information Management Command)" in the *Reference Guide* for details).

Before deleting a user, use swcfmg_lplatform (L-Platform Information Management command) to check if it is an L-Platform owner - if it is, perform one of the steps below before deleting the user:

- Change ownership of the L-Platform to one of the current tenants.

  Refer to "Changing an L-Platform Owner" for details.

- Delete the L-Platform.

  Refer to "Deleting an L-Platform" for details.

2.2 Tenant Management

A tenant is a unit of management for segmenting and isolating the management and operation of resources, based on an organization or business. This section describes the following operations for managing tenants:

- Registering a tenant
- Updating a tenant
- Deleting a tenant

Note

If no tenant exists, a message is displayed on the management console.

To use the management console, you must create at least one tenant.

When linked to ServerView Resource Orchestrator

When linked to ServerView Resource Orchestrator, tasks such as registering, updating, or deleting a tenant should be performed from that product. Refer to the following manuals for information on how to perform these tasks using ServerView Resource Orchestrator:

- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators*
- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*

Note

Before deleting a tenant using ServerView Resource Orchestrator, use swcfmg_lplatform (L-Platform Information Management command) with the -list option to confirm that no L-Platforms belong to that tenant.

If a tenant with an L-Platform is inadvertently deleted, move the L-Platform to another tenant.

Use swcfmg_lplatform (L-Platform Information Management command) with the -list option to list L-Platforms that do not belong to a tenant.

2.2.1 Registering a Tenant

The following kinds of information can be specified when registering a tenant with the swcfmg_tenant command (refer to "swcfmg_tenant (Tenant Information Management Command)" in the *Reference Guide* for details):

Information	Description
Tenant name	A name that uniquely identifies the tenant.
Display name	Display name of the tenant. Only limited characters can be used for the 'tenant name', so a name that easily identifies the tenant can be configured here if needed.

2.2.2 Updating a Tenant

Use swcfmg_tenant to update tenant information. Refer to "swcfmg_tenant (Tenant Information Management Command)" in the *Reference Guide* for details.

2.2.3 Deleting a Tenant

Use swcfmg_tenant to delete a tenant. Refer to "swcfmg_tenant (Tenant Information Management Command)" in the *Reference Guide* for details.

Before deleting a tenant, first confirm that no users or L-Platforms exist within the tenant by executing the swcfmg_account (User Information Management command) with the -list option or swcfmg_lplatform (L-Platform Information Management command) with the -list option. If a user or L-Platform exists, perform one of the steps below before deleting the tenant.

- Move the user or L-Platform to another tenant

  Refer to "Moving a User" for details on how to move a user. Refer to "Moving an L-Platform" for details on how to move an L-Platform.

- Delete the user or L-Platform.

  Refer to "Deleting a User" for details on how to delete a user. Refer to "Deleting an L-Platform" for details on how to delete an L-Platform.

2.3 L-Platform Management

An L-Platform is a resource for the consolidated operation and management of entire systems such as multi-layer systems (Web/AP/DB) comprised of multiple servers, storage, and networks. This section describes the following operations for managing L-Platforms:

- Registering an L-Platform
- Updating an L-Platform
- Moving an L-Platform
- Changing an L-Platform owner
- Deleting an L-Platform

When linked to ServerView Resource Orchestrator

This section explains how to manage the two types of L-Platforms that exist when linked to ServerView Resource Orchestrator (refer to "Designing Tenants, Users, L-Platforms and Servers" in the *Installation Guide* for details):

- Non ROR-managed L-Platforms (L-Platforms not managed by ServerView Resource Orchestrator)
- ROR-managed L-Platforms (L-Platforms managed by ServerView Resource Orchestrator)

2.3.1 Registering an L-Platform

The following kinds of information can be specified when registering an L-Platform with swcfmg_lplatform (refer to "swcfmg_lplatform (L-Platform Information Management Command)" in the *Reference Guide* for details):

Information	Description
L-Platform name	Name of the L-Platform. A name can be assigned to the L-Platform for management purposes.
Tenant	Tenant to which the L-Platform belongs.
Owner	Owner of the L-Platform.

When linked to ServerView Resource Orchestrator

Non ROR-managed L-Platforms

Use swcfmg_lplatform to register a non ROR-managed L-Platform as mentioned above.

Note

ServerView Resource Orchestrator cannot be used to perform operations such as configuration changes or power operations on non ROR-managed L-Platforms. Also, display is not possible on the following windows of the ROR console:

- **Orchestration tree** on the**Resource** tab
- **L-Platform** management window
- **Tenant** management window

ROR-managed L-Platforms

To register an ROR-managed L-Platform, the L-Platform must be created using ServerView Resource Orchestrator. Refer to the following manuals for information on how to create an L-Platform:

- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*
- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users*
- "Importing to L-Platform" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide*

2.3.2 Updating an L-Platform

Use swcfmg_lplatform to update an L-Platform (refer to "swcfmg_lplatform (L-Platform Information Management Command)" in the *Reference Guide* for details).

When linked to ServerView Resource Orchestrator

Non ROR-managed L-Platforms

Use swcfmg_lplatform to update non ROR-managed L-Platform information as mentioned above.

ROR-managed L-Platforms

Update ROR-managed L-Platform information using ServerView Resource Orchestrator. Refer to the following manuals for details:

- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*
- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users*

2.3.3 Moving an L-Platform

The tenant to which an L-Platform belongs can be changed by moving the L-Platform.

Use swcfmg_lplatform to move an L-Platform (refer to "swcfmg_lplatform (L-Platform Information Management Command)" in the *Reference Guide* for details).

If moving an L-Platform, one of the actions below must be performed to ensure that the L-Platform owner will become a user in a tenant at the destination:

- Before moving an L-Platform, move the L-Platform owner to a tenant at the destination.

  Refer to "Moving a User" for details.

- After moving an L-Platform, change the L-Platform owner to a user in a tenant at the destination.

  Refer to "Changing an L-Platform Owner" for details.

When linked to ServerView Resource Orchestrator

Non ROR-managed L-Platforms

Use swcfmg_lplatform to move a non ROR-managed L-Platform as mentioned above.

ROR-managed L-Platforms

Move an ROR-managed L-Platform using ServerView Resource Orchestrator. Refer to the following manuals for details:

- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators*
- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*

2.3.4 Changing an L-Platform Owner

Use swcfmg_lplatform to change an L-Platform owner (refer to "swcfmg_lplatform (L-Platform Information Management Command)" in the *Reference Guide* for details).

Ensure that the L-Platform owner is a user in the tenant to which the L-Platform belongs.

When linked to ServerView Resource Orchestrator

Non ROR-managed L-Platforms

Use swcfmg_lplatform to change the owner of a non ROR-managed L-Platform as mentioned above.

ROR-managed L-Platforms

Change the owner of an ROR-managed L-Platform using ServerView Resource Orchestrator. Refer to the following manuals for details:

- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Infrastructure Administrators*
- "Tenant" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*

2.3.5 Deleting an L-Platform

Use swcfmg_lplatform to delete an L-Platform (refer to "swcfmg_lplatform (L-Platform Information Management Command)" in the *Reference Guide* for details).

Before deleting an L-Platform, use the swcfmg_server (Server Information Management command) with the -list option to ensure that there are no servers on the L-Platform. If a server is found, delete it before deleting the L-Platform.

When linked to ServerView Resource Orchestrator

Non ROR-managed L-Platforms

Use swcfmg_lplatform to delete a non ROR-managed L-Platform as mentioned above.

ROR-managed L-Platforms

To delete an ROR-managed L-Platform, the L-Platform must be deleted using ServerView Resource Orchestrator. Refer to the following manuals for information on how to delete an L-Platform:

- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*
- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users*
-

2.4 Server Management

This section explains the following items with regard to managing servers:

- Registering a server
- Updating a Server
- Deleting a server

- Managing a server managed by Systemwalker Runbook Automation

When linked to ServerView Resource Orchestrator

This section explains how to manage the two types of servers that exist when linked to ServerView Resource Orchestrator (refer to "Designing Tenants, Users, L-Platforms and Servers" in the *Installation Guide* for details):

- Non ROR-managed servers (Servers not managed by ServerView Resource Orchestrator)
- ROR-managed servers (Servers managed by ServerView Resource Orchestrator)

Note

Ensure that the IP addresses of servers managed using Systemwalker Software Configuration Manager are unique.

If linking to ServerView Resource Orchestrator, ensure that IP addresses are unique, including for ROR-managed servers.

2.4.1 Registering a Server

Register a server to enable it to be managed by Systemwalker Software Configuration Manager.

The kinds of information listed below can be specified when registering a server with the swcfmg_server command (refer to "swcfmg_server (Server Information Management Command)" in the *Reference Guide* for details).

Perform a connection test whenever you register a server (refer to "swcfmg_connectiontest (Connection Test Command)" in the *Reference Guide* for details).

Item	Description
IP address	The IP address connected to the admin LAN.
Server name	Name of the server. A name can be assigned to the server for management purposes.
L-Platform	L-Platform to which the server belongs.
Host name	Host name of the server.
Operating system type	Type of operating system.
Operating system architecture	Architecture of the operating system.
Operating system name	Name of the operating system.

When linked to ServerView Resource Orchestrator

Non ROR-managed servers (Servers managed by other than ServerView Resource Orchestrator)

Use swcfmg_server to register a non ROR-managed server as mentioned above. A non ROR-managed server cannot belong to an ROR-managed L-Platform.

Note

- ServerView Resource Orchestrator cannot be used to perform operations such as configuration changes, power operations, taking snapshots, or performing backup on non ROR-managed servers. Also, display is not possible on the following windows of the ROR console:
  - **Orchestration tree** on the**Resource** tab
  - **L-Platform** management window
  - **Tenant** management window
- Graphs will not be displayed on the ROR console dashboard (operation status) window for non ROR-managed servers.

ROR-managed servers (Servers managed by ServerView Resource Orchestrator)

An ROR-managed server must belong to an L-Platform using ServerView Resource Orchestrator in order to be managed by Systemwalker Software Configuration Manager. Perform the operations below using ServerView Resource Orchestrator:

- Create an L-Platform
- Reconfigure the L-Platform and add the server
- Import the L-Server to the L-Platform.

Refer to the following manuals for details:

- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*
- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users*
- "Importing to L-Platform" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide*

2.4.2 Updating a Server

Use swcfmg_server to update server information (refer to "swcfmg_server (Server Information Management Command)" in the *Reference Guide* for details).

When linked to ServerView Resource Orchestrator

Non ROR-managed servers (Servers managed by other than ServerView Resource Orchestrator)

Use swcfmg_server to update a non ROR-managed server as mentioned above.

ROR-managed servers (Servers managed by ServerView Resource Orchestrator)

Update ROR-managed server information using ServerView Resource Orchestrator. Refer to the following manuals for details:

- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*
- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users*

2.4.3 Deleting a Server

Delete a server to stop it from being managed by Systemwalker Software Configuration Manager.

Use swcfmg_server to delete a server (refer to "swcfmg_server (Server Information Management Command)" in the *Reference Guide* for details).

When linked to ServerView Resource Orchestrator

Non ROR-managed servers (Servers managed by other than ServerView Resource Orchestrator)

Use swcfmg_server to delete a non ROR-managed server as mentioned above.

ROR-managed servers (Servers managed by ServerView Resource Orchestrator)

An ROR-managed server must be deleted from the server using ServerView Resource Orchestrator in order to stop it from being managed by Systemwalker Software Configuration Manager. Delete an ROR-managed server using ServerView Resource Orchestrator. Refer to the following manuals for details:

- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Administrators*
- "L-Platform" in the *ServerView Resource Orchestrator Cloud Edition User's Guide for Tenant Users*

2.4.4 Managing a Server Managed by Systemwalker Runbook Automation

This section explains how a server managed by Systemwalker Runbook Automation can be configured as a managed server managed by Systemwalker Software Configuration Manager.

Registering a server

A server managed by Systemwalker Runbook Automation can be registered as a managed server of this product by using the Server Information Management command (refer to "swcfmg_server (Server Information Management Command)" in the *Reference Guide* for details).

Note

This product manages information about managed servers by storing it in the CMDB as configuration items of LogicalServer.

Therefore, to configure a server managed by Systemwalker Runbook Automation as a managed server managed by this product, update the attributes below for the LogicalServer configuration items corresponding to the server to be registered. Update these items with the values specified when registering the server using the Server Information Management command.

Refer to "Configuration Item Format" in the *Systemwalker Runbook Automation Reference Guide* for information on the format of configuration items.

Element Name	Parent Element	Element Description	Component Name	Component Type	Component Description	Value
LogicalServer		Server node information	nickname	Attribute	Used as a nickname or partition display name	The following string will be stored: Server name + "(" + host name + ")"
			hostname	Attribute	Host name	Host name
			name	Attribute	Official name	Internal information (server ID)
			SystemSettings	Element	System settings	-
SystemSettings	LogicalServer	System settings	OSSetting	Element	OS information	-
OSSetting	SystemSettings	OS information	platform	Attribute	OS type	OS type

Updating a server

Use the Server Information Management command to update server information (refer to "swcfmg_server (Server Information Management Command)" in the Reference Guide for details).

Note

The items below (LogicalServer configuration items corresponding to the server to be updated) are updated with the values you specified when updating the server using the Server Information Management command.

Refer to "Configuration Item Format" in the *Systemwalker Runbook Automation Reference Guide* for information on the format of configuration items.

Element Name	Parent Element	Element Description	Component Name	Component Type	Component Description	Value
LogicalServer		Server node information	nickname	Attribute	Used as a nickname or partition display name	The following string will be stored: Server name + "(" + host name + ")"

Element Name	Parent Element	Element Description	Component Name	Component Type	Component Description	Value
			hostname	Attribute	Host name	Host name

Notes on updating server information using Systemwalker Runbook Automation

Notes on updating server information using Systemwalker Runbook Automation are shown below.

Note

Do not change the values of the following LogicalServer configuration items using Systemwalker Runbook Automation, because they are used by this product.

Element Name	Parent Element	Element Description	Component Name	Component Type	Component Description	Value
LogicalServer		Server node information	ipAddress	Attribute	IP address	IP address
			SystemSettings	Element	System settings	-
SystemSettings	LogicalServer	System settings	OSSetting	Element	OS information	-
OSSetting	SystemSettings	OS information	platform	Attribute	OS type	OS type

Deleting a server

To configure a server to no longer be managed by this product, delete it using the Server Information Management command (refer to "swcfmg_server (Server Information Management Command)" in the *Reference Guide* for details).

Information

Deleting the following server using the Server Information Management command does not delete its LogicalServer configuration items:

- During server registration, server information had already been stored as LogicalServer configuration items in the CMDB using Systemwalker Runbook Automation

2.5 Setup for Patch Management

This section explains how to configure settings for patch management and changes these settings.

2.5.1 Setting up Patch Management Policies for Windows Operating Systems and Fujitsu Middleware

The patch management policies for Windows operating systems and Fujitsu middleware are set up when Systemwalker Software Configuration Manager is set up. To change this policy, edit the patch management policy definition file.

Refer to the *Reference Guide* for information on the patch management policy definition file.

[Windows]

<*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\config\patch_management_policy.xml

[Linux]

/opt/FJSVswcfmg/config/patch_management_policy.xml

Setting up the patch management policy for Windows operating systems

This section explains how to set up the patch management policy for Windows operating systems.

Setting up the patch management policy allows infrastructure administrators to set the patch types (the classification of updates, which represent the WSUS update program types) for application status monitoring, as well as the patch types to be applied to all servers without fail.

This enables tenant users to distinguish which patches are mandatory and which patches are optional when they apply patches.

Item	Description
Classification level specification for the updates for WSUS	Specify the classification level for the update programs acquired from WSUS. Classification levels classify the importance of a patch in terms of patch management by Systemwalker Software Configuration Manager, and can be specified as either "Required" or "Recommended" for each classification of update. The classification levels are as follows: - "Required": A patch that must be applied uniformly to all servers according to the decision that the infrastructure administrator has made - "Recommended": A patch recommended for application by the infrastructure administrator that can be canceled by a tenant user if they determine it will affect business activities. "Required" or "Recommended" can be specified for each classification of update. By default, the classification levels are as follows: [Required] - Security Updates - Critical Updates [Recommended] - Feature Packs - Service Packs - Tools - Drivers - Updates - Update Rollups - Definition Updates

Setting up the patch management policy for Fujitsu middleware

This section explains how to set up the patch management policy for Fujitsu middleware.

Setting up the patch management policy allows infrastructure administrators to set which types of patches they want to classify.

This enables tenant users to distinguish which patches should be applied based on their importance when they apply patches.

The infrastructure administrator sets up the following item in the property file during installation. This item can be changed even during operations.

Item	Description
Classification level specification based on the importance level of update files	Specify the classification level based on the importance level that has been set in the update file: The classification levels are as follows: - "Required" (patches that must be applied) - "Recommended" (patches for which application is recommended) Set either "Required" or "Recommended" for each individual importance level for update files. By default, the classification levels are as follows: [Required] - Security - Important [Recommended] - Recommended

2.5.2 Defining the Linux Patch Management Target

RPM packages subject to Linux patch management are not defined during setup. This means that RPM packages subject to Linux patch management must be defined manually.

To define RPM packages subject to Linux patch management or change the definitions, use the following procedure to edit the Linux patch management target configuration file, and then use a command to register the definitions with Systemwalker Software Configuration Manager:

1. Export the existing Linux patch management target configuration file.

   This step is not required when defining RPM packages subject to Linux patch management for the first time.

   [Windows]

   ```
   swcfmg_patch_exportrpmpolicy.exe -f C:\work\linuxpatchpolicy.csv
   ```

   [Linux]

   ```
   swcfmg_patch_exportrpmpolicy -f /tmp/linuxpatchpolicy.csv
   ```

   Refer to the *Reference Guide* for information on the swcfmg_patch_exportrpmpolicy command.

2. Edit the Linux patch management target configuration file.

   Refer to the *Reference Guide* for information on how to edit the Linux patch management target configuration file.

3. Import the Linux patch management target configuration file edited in Step 2 above.

   [Windows]

   ```
   swcfmg_patch_importrpmpolicy.exe -f C:\work\linuxpatchpolicy.csv
   ```

   [Linux]

   ```
   swcfmg_patch_importrpmpolicy -f /tmp/linuxpatchpolicy.csv
   ```

   Refer to the *Reference Guide* for information on the swcfmg_patch_importrpmpolicy command.

Note

To manage Linux patches, RPM packages subject to Linux patch management must be defined. If RPM packages subject to Linux patch management have not been defined, patch information for Linux operating systems will not be displayed in the management console.

2.6 Creating Scripts

Scripts can be registered to perform required processes on business servers before and/or after execution of processes configured using the **Patch Application** wizard or **Parameter Settings** wizard. You can register any script in the **Script Execution** wizard and run it on a business server.

Notes on registering scripts are shown below.

Notes on creating scripts

- Valid return values for use in scripts

  Create the script so that it returns "0" when successfully completed, or another value when an error occurs - note that values from 159 to 240 cannot be used as return values.

- Script file names

  Only printable ASCII codes can be used for script file names.

  In Windows, ".bat" or ".cmd" should be used for the script extensions.

- Notes on creating scripts for use across different platforms

  When creating scripts for use across different platforms, the line feed code must be converted to suit the operating system:

  - In Windows, use CR/LF (carriage return followed by line feed).
  - In Linux, use LF (line feed).

- Commands that cannot be used with a script

  Do not execute the following commands from a script, because this will cause the script to enter standby status on the business server, and its processing will not complete.

  - Commands that require interaction **[Windows/Linux]**
  - Commands for which a window opens during execution **[Windows]**
  - AT commands **[Windows]**
  - Shell scripts created using PowerShell **[Windows]**
  - Commands running in full-screen mode **[Linux]**

Example of log output when an error occurs

A return value of "0" indicates that the script was executed normally, while any other value indicates an error.

If a value other than "0" is returned, indicating an error in the script, and there has been no specification to continue in the event of an error, a "Pre-execution script error check", "Post-execution script error check", or "script execution failure check" will be generated.

The log below can be confirmed from **Details** in the task tab window.

Example:

```
<2012-04-16 16:23:24>:executeCommand["C:/Fujitsu/Systemwalker/SWCFMGA/var/process/65359/
pre_script.bat"]
message:The operation component was successful.
command_stdout:
command_stderr:
```

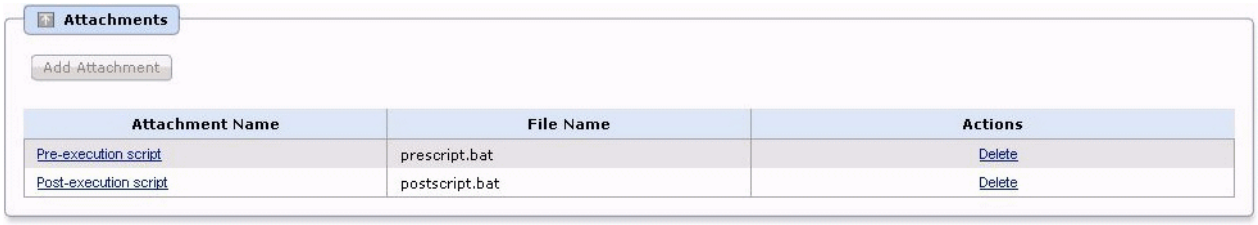
```
command_rcode:1
returnCode:1
```

The value in "command_rcode" above is the value returned by the script - refer to this value and review the script.

Example of script attachments

Registered scripts are attached to "patch distribution acceptance" tasks, "patch application acceptance" tasks, "parameter setting acceptance" tasks, and "script execution acceptance" tasks on the management console **Task Management** window as file attachments.

An example is shown below.



2.6.1 Creating a Fujitsu Middleware Patch Application Script

To apply Fujitsu middleware patches, a script specifying the application processing must be created and then registered as a post-execution script.

Fujitsu middleware patch distribution destination

Fujitsu middleware patches will be distributed to the path specified in the "DISTRIBUTE_PATCH_PATH" environment variable on the business server.

The default path in the "DISTRIBUTE_PATCH_PATH" environment variable is shown below.

- Business server

  [Windows]

  SystemwalkerSoftwareConfigurationManagerInstallDir\SWCFMGB\var\distribute

  A directory named "*processId*_yyyy-MM-dd_HH-mm-ss" will be created in the above directory to store the patches.

  [Linux]

  /var/opt/FJSVcfmgb/distribute

  A directory named "*processId*_yyyy-MM-dd_HH-mm-ss" will be created in the above directory to store the patches.

Example of creating a script to apply Fujitsu middleware patches

Execute the UpdateAdvisor (middleware) command to apply Fujitsu middleware patches.

An example of creating a script to apply Fujitsu middleware patches is shown below.

All patches distributed to directories included in the path specified in the "DISTRIBUTE_PATCH_PATH" environment variable will be applied.

Example:

[Windows]

```
"C:\Program Files (x86)\Fujitsu\UpdateAdvisor\UpdateAdvisorMW\uam" add -s -d %DISTRIBUTE_PATCH_PATH%
```

[Linux]

```
/opt/FJSVfupde/bin/uam add -s -d $DISTRIBUTE_PATCH_PATH
```

Refer to "Applying Updates (Using uam add)" in the UpdateAdvisor (middleware) help for information on the UpdateAdvisor (middleware) command.

A sample script for applying Fujitsu middleware patches is stored in the directory below.

Extract this script and revise if necessary before using.

Note that the admin server stores scripts for both Windows and Linux, while the business server stores only the scripts that match the operating system.

Storage location

- Admin server

  [Windows]

  ```
  cfmgInstallDir\SWCFMGM\sample
  ```

  [Linux]

  ```
  /opt/FJSVcfmgm/sample
  ```

- Business server

  [Windows]

  ```
  cfmgInstallDir\SWCFMGB\sample
  ```

  [Linux]

  ```
  /opt/FJSVcfmgb/sample
  ```

File name

- Windows: win_mw_patch.bat
- Linux: lin_mw_patch.sh

Notes on creating a Fujitsu middleware patch application script

Notes on creating a Fujitsu middleware patch application script are shown below (for general notes on scripts, refer to "Notes on creating scripts"):

- Checking the conditions and methods for applying Fujitsu middleware patches

  Before creating a script to apply Fujitsu middleware patches, check the application conditions and methods described in the revision information file.

  Note that revisions which cannot be performed by script alone cannot be applied in Systemwalker Software Configuration Manager. In this situation, log on to the managed server and apply the patches manually.

Information

Changing the distribution directory

To change the distribution directory, edit the values in the following files on the business server:

- Business server

  [Windows]

  The system environment variable "SWCFMGA_DISTRIBUTE" contains the distribution directory - to change it, simply edit the system environment variable.

[Linux]

```
/etc/opt/FJSVcfmgb/config/distribute.properties
```

The "distribute_dir" item in the file above contains the distribution directory - to change it, simply edit the file.

Example: distribute_dir=/var/opt/FJSVcfmgb/distribute

2.7 Parameter Value Settings

To configure values in software parameters, specify values and parameter packages in parameters that have been defined in the parameter settings definition. Note that sets of values to be configured in parameters can also be created as predefined parameters. Use the **Parameter Settings** wizard of the management console to set values for software parameters. Use the predefined parameter management command (swcfmg_param_predef) to create predefined parameters. Refer to the *Operator's Guide* for information on the management console. Refer to the *Reference Guide* for information on commands.

The knowledge required for these steps is explained below:

- Variables that can be specified as values

  It is possible to specify variables as values. Refer to "Variables that can be Specified as Values" under "Definition of Parameter Information" in the *Developer's Guide* for details.

- Package files

  Parameter packages can be specified as parameters. Refer to "Package Files" under "Definition of Parameter Information" in the Developer's Guide for details.

- Predefined parameters

  Sets of values to be configured in the parameters can be defined as predefined parameters using parameter information.

2.7.1 Predefined Parameters

Predefined parameters are parameters in which sets of values have been defined in advance using parameter information.

In the parameter information, specify the keys and values to be configured in the values of the parameters contained in the parameter settings definition. A parameter package can also be specified (a parameter package is a package file containing the parameter settings script file attachment compressed in ZIP format).

Required information

An explanation of details to be specified in the parameter information is shown below.

Tag name	Allowable range	Description	Mandatory	Settings
name	256 characters or less	Specifies parameter information name.	Y	
description	256 characters or less	Specifies the parameter information description.	N	
parameters	0 or more	Specifies multiple parameters that can be configured in the software.	N	
key	1 to 256 bytes	Specifies the parameter key.	Y	Only the key contained in the parameter settings definition can be specified.

Tag name		Allowable range	Description	Mandatory	Settings
	value	4096 characters or less	Specifies the parameter value.	Y	Values that can be specified are determined by 'type'. The string "__EMPTY__" (prefixed and suffixed by 2 underscores) cannot be specified. Variables can be specified as values by prefixing them with # (to specify # or \ as part of the value, prefix them with the \ escape character). Refer to "Variables that can be Specified as Values" under "Definition of Parameter Information" in the *Developer's Guide* for details.
Parameter package		2 MB or less	Specifies the package file containing the parameter settings script compressed in ZIP format.	Y	For details on parameter settings scripts, refer to "Parameter Settings Scripts" under "Definition of Parameter Information" in the *Developer's Guide*. For details on package files, refer to "Package Files" under "Definition of Parameter Information" in the *Developer's Guide*.

2.8 Editing Email Template Files

This section explains how to edit the following email template files:

- Email template files (for OS patches)
- Email template files (for Fujitsu middleware patches)
- Email template files (for processing)

2.8.1 Email Template Files (for OS Patches)

When a new OS patch is released on the repository server (or registered with yum), an email is sent to tenant administrators and tenant users informing them that a new patch has been released, and prompting them to apply it.

Refer to the *Reference Guide* for information on the email template files.

2.8.2 Email Template Files (for Fujitsu Middleware Patches)

When a new patch for Fujitsu middleware is registered with Systemwalker Software Configuration Manager, an email is sent to tenant administrators and tenant users informing them that a new patch has been released, and prompting them to apply it.

Refer to the *Reference Guide* for information on the email template files.

2.8.3 Email Template Files (for Processing)

If an event occurs during any of the following processes when executed using a management console wizard, an email notification will be sent to the user who executed the wizard.

- Patch distribution
- Patch application
- Parameter settings
- Script execution

Email subject	Trigger	Email description
Processing request acceptance notification	When processing begins after the request has been made	Indicates that a processing request has been received, and processing has started.
Schedule cancelation notification	After the schedule is canceled	Indicates that the schedule has been canceled, and processing has terminated.
Server error notification	When server operations are checked and found to be abnormal	Indicates that an error has occurred on the server.
Pre-execution script error notification	When the pre-execution script is executed	Indicates that the pre-script processing has failed.
Processing failure notification	When executing patch distribution, patch application, parameter settings, or script execution	Indicates that patch distribution, patch application, parameter settings, or script execution failed.
Post-execution script error notification	When the post-execution script is executed	Indicates that the post-script processing has failed.
Restart failure notification	When the restart process fails	Indicates that restart has failed.
Processing completion notification	When the processing is complete	Indicates that processing is complete.
Processing cancelation notification	When **Cancel** is selected or a timeout occurs	Indicates that either the process has been canceled or a timeout has occurred.

The notification details for each process are shown below:

Email subject	Patch distribution	Patch application	Parameter settings	Script execution
Processing request acceptance notification	Y	Y	Y	Y
Schedule cancelation notification	Y	Y	Y	Y
Server error notification	Y	Y	Y	Y
Pre-execution script error notification	Y	Y	Y	N
Processing failure notification	Y	Y	Y	Y
Post-execution script error notification	Y	Y	Y	N
Restart failure notification	Y	Y	Y	Y
Processing completion notification	Y	Y	Y	Y
Processing cancelation notification	Y	Y	Y	Y

Y: Email notification is sent

N: Email notification is not sent

Refer to the *Reference Guide* for details on the email template files.

2.9 Notification Settings in the Management Console

When a user logs in to the management console, the **Home** window is displayed. Notifications (such as maintenance information) can be sent from the system to tenant administrators and tenant users.

How to edit notifications

This section explains how to edit the notifications that are displayed in the bottom part of the **Home** window.

Edit notifications by editing the following text file. Data that has been changed is applied immediately.

[Windows]

<*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\config\information_mes.txt

[Linux]

/opt/FJSVswcfmg/config/information_mes.txt

Note

If the text file does not exist, no notifications will be displayed.

Settings

Enter each message on separate lines using the following format:

date,*message*

- There is no set format for the date.
- Use UTF-8 as the character encoding for the text file.
- The text file contains "YYYY-MM-DD,XXXX" as the default value. If necessary, edit this default value.

Settings example

2013-07-15, There will be maintenance for related networks over the weekend. 2013-07-10, A new patch has been released. 2013-07-02, An urgent security patch has been released.

Chapter 3 Starting and Stopping Systemwalker Software Configuration Manager

This chapter explains how to start and stop the Systemwalker Software Configuration Manager admin server.

3.1 Starting Systemwalker Software Configuration Manager

This section explains how to start Systemwalker Software Configuration Manager.

1. Ensure that ServerView Resource Orchestrator is running if you want to use it to manage servers deployed by the tool.

   Refer to the ServerView Resource Orchestrator manuals for more information.

2. Start Systemwalker Runbook Automation (which is included in Systemwalker Software Configuration Manager).
   Note that this step is not necessary if integrating with ServerView Resource Orchestrator, as Systemwalker Runbook Automation will be launched automatically when ServerView Resource Orchestrator is started.

   [Windows]

   Select **Run as administrator** to execute the command:

   ```
   %SWRBA_HOME%\bin\swrba_start (*1)
   ```

   *1: %SWRBA_HOME% contains the Systemwalker Runbook Automation installation directory.

   [Linux]

   Execute the command as a superuser:

   ```
   /opt/FJSVswrbam/bin/swrba_start
   ```

3. If Systemwalker Runbook Automation starts successfully, a startup completion message will be output.

   ```
   Startup processing for Systemwalker Runbook Automation will start.
   The database for process management has started.
   The server function has started.
   The console function has started.
   The CMDB Manager has started.
   The schedule function has started.
   The startup processing for Systemwalker Runbook Automation has completed normally.
   ```

4. Execute the following command on the admin server:

   [Windows]

   Select **Run as administrator** to execute the command:

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_start
   ```

   [Linux]

   Execute the command as a superuser:

   ```
   /opt/FJSVcfmgm/bin/swcfmg_start
   ```

5. If Systemwalker Software Configuration Manager starts successfully, the following message will be output:

   ```
   Startup processing for Systemwalker Software Configuration Manager will start.
   The startup processing for Systemwalker Software Configuration Manager has completed normally.
   ```

See

Refer to the *Reference Guide* for information on this command.

3.2 Stopping Systemwalker Software Configuration Manager

This section explains how to stop Systemwalker Software Configuration Manager.

1. Execute the following command on the admin server:

   [Windows]

   Select **Run as administrator** to execute the command:

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_stop
   ```

   [Linux]

   Execute the command as a superuser:

   ```
   /opt/FJSVcfmgm/bin/swcfmg_stop
   ```

2. If Systemwalker Software Configuration Manager stops successfully, the following message will be output:

   ```
   Stop processing for Systemwalker Software Configuration Manager will start.
   The stop processing for Systemwalker Software Configuration Manager has completed normally.
   ```

3. Stop Systemwalker Runbook Automation (which is included in Systemwalker Software Configuration Manager).
   Note that this step is not necessary if integrating with ServerView Resource Orchestrator, and if Systemwalker Runbook Automation and Systemwalker Software Configuration Manager are installed and operating on the same server.

   [Windows]

   Select **Run as administrator** to execute the command:

   ```
   %SWRBA_HOME%\bin\swrba_stop (*1)
   ```

   *1: %SWRBA_HOME% contains the Systemwalker Runbook Automation installation directory.

   [Linux]

   Execute the command as a superuser:

   ```
   /opt/FJSVswrbam/bin/swrba_stop
   ```

4. If Systemwalker Runbook Automation stops successfully, a stop completion message will be output.

   ```
   Stop processing for Systemwalker Runbook Automation will start.
   The schedule function has stopped.
   CMDB Manager has stopped.
   The console function has stopped.
   The server function has stopped.
   The database for process management has stopped.
   The stop processing for Systemwalker Runbook Automation has completed normally.
   ```

See

Refer to the *Reference Guide* for information on this command.

3.3 Checking the Status of Systemwalker Software Configuration Manager

Use the status display command to check the setup status and startup status of Systemwalker Software Configuration Manager. The following statuses can be checked:

- Systemwalker Software Configuration Manager has not been set up.
- Systemwalker Software Configuration Manager is running.
- Systemwalker Software Configuration Manager is not running.

Use the following procedure to check the status of Systemwalker Software Configuration Manager:

1. Execute the following command on the admin server:

   [Windows]

   Select **Run as administrator** to execute the command:

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_status
   ```

   [Linux]

   Execute the command as a superuser:

   ```
   /opt/FJSVcfmgm/bin/swcfmg_status
   ```

2. The following messages are output according to the status of Systemwalker Software Configuration Manager:

   - If Systemwalker Software Configuration Manager has not been set up:

     ```
     Systemwalker Software Configuration Manager has not been set up.
     ```

   - If Systemwalker Software Configuration Manager is running:

     ```
     Systemwalker Software Configuration Manager is running.
     ```

   - If Systemwalker Software Configuration Manager is not running:

     ```
     Systemwalker Software Configuration Manager is not running.
     ```

Refer to the *Reference Guide* for information on this command.

Chapter 4 Maintenance

This chapter explains topics relating to maintenance, such as the logs that are output when Systemwalker Software Configuration Manager is used, and how to back up and restore the admin server.

4.1 Log Output

This section explains the logs output by Systemwalker Software Configuration Manager.

4.1.1 Logs Output on the Admin Server

The types of logs that are output on the admin server are shown in the tables below.

Audit logs

Log name	Description	Size	Number of generations
cfmg_audit_log	Audit log.	10 MB	10 generations (*1)

*1: If this number is exceeded, previous generations will be deleted, starting with the oldest.

Investigation logs

Log name	Description	Size	Number of generations
managerview_trace_log	Trace log for the management console.	10 MB	10 generations (*1)
cfmgbase_trace_log	Trace log for the manager itself.		
cfmgdiscovery_trace_log	Trace log for the discovery function.		
cfmgcommand_trace_log	Trace log for the following commands: - Status display command - Start command - Stop command - Email resend command - Backup command - Restore command - Problem investigation data collection command		
cfmgcommand_discovery_trace_log	Trace log with the following: - Information that is output when all information is collected using the patch information update command - Information that is output when parameter information is collected using the parameter information update command.		
cfmgcommand_discovery_wsus_trace_log	Trace log with the following:		

Log name	Description	Size	Number of generations
	- Information that is output when only WSUS information is collected using the patch information update command		
cfmgcommand_discovery_yum_trace_log	Trace log with the following: - Information that is output when only yum information is collected using the patch information update command		
cfmgcommand_discovery_fjmw_trace_log	Trace log with the following: - Information that is output when only Fujitsu middleware information is collected using the patch information update command		
Event log (Windows)	Contains information such as information about errors that occurs while patch application status information for deployed servers is being collected.	-	-
Syslog (Linux)	Contains information such as information about errors that occurred while patch application status information for deployed servers was being collected.	-	-

*1: If this number is exceeded, previous generations will be deleted, starting with the oldest.

4.1.1.1 Log Output Destination

The output destination for logs is shown below.

[Windows]

Output folder	Output file
<*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\logs	Same as the log name.

[Linux]

Output folder	Output file
/var/opt/FJSVcfmgm/logs	Same as the log name.

4.1.1.2 Output Format for Audit Logs

The output format for audit logs is as shown below. It is possible to change the output destination for audit logs, the file size, and the number of generations held.

Output format for audit logs

Output format
<*Operation date/time*>,<*User ID*>,<*Tenant name*>,<*Operation type*>,<*Parameters*>,<*Operation result*>

Item	Description
Operation date/time	YYYY-MM-DD HH:MM:SS.sss (local time)
User ID	The user ID of the user that executed the operation
Tenant name	The tenant name of the user that executed the operation

Item	Description
	Note: For operations performed by infrastructure administrators, "admin" is output.
Operation type	A string indicating the content of the operation
Parameters	The parameters specified by the request
Operation result	"SUCCESS" if the operation was successful and "FAILURE" if the operation failed

Operation type

Operation type	Description
/managerview/login.json	Performs login
/managerview/logout.json	Performs logout
/managerview/userInfo.json	Acquires user information
/managerview/org/list.json	Acquires a list of tenants
/managerview/ls/list.json	Acquires a list of servers
/managerview/ls/map.json	Acquires the map of unapplied patches
/managerview/ls/copy.json	Copies a list of servers
/managerview/ls.json	Acquires server details
/managerview/info/list.json	Acquires notifications
/managerview/windows.csv	Outputs Windows patch information to a CSV file
/managerview/patch/windows/list.json	Acquires a list of Windows patches
/managerview/patch/windows/map.json	Acquires the map of servers with unapplied Windows patches
/managerview/windows.json	Acquires Windows patch details
/managerview/patch/copy.json	Copies a list of Windows patches
/managerview/patch/linux.csv	Outputs Linux patch information to a CSV file
/managerview/patch/linux/list.json	Acquires a list of Linux patches
/managerview/patch/linux/map.json	Acquires the map of servers with unapplied Linux patches
/managerview/patch/linux.json	Acquires Linux patch details
/managerview/wsus.json	Refreshes
/managerview/patchType/list.json	Acquires a list of patch types
/managerview/patchSummary/list.json	Acquires a summary of patches
/managerview/midPatch.csv	Outputs Fujitsu middleware patch information to CSV file
/managerview/midPatch/list.json	Acquires a list of Fujitsu middleware patches
/managerview/midPatch/map.json	Acquires the map of servers with unapplied Fujitsu middleware patches
/managerview/midPatch.json	Acquires details on Fujitsu middleware patches
/managerview/baseLine/list.json	Acquires a list of configuration baselines
/managerview/baseLine/patchComp.json	Compares Windows patches
/managerview/baseLine/linux/patchComp.json	Compares Linux patches
/managerview/baseLine/midPatchComp.json	Compares Fujitsu middleware patches
/managerview/software/list.json	Acquires a list of software programs

/managerview/software.json	Acquires software details
/managerview/appliedPatch.csv	Outputs patch application information to a CSV file
/managerview/appliedPatch.do	Applies patches
/managerview/software/map.json	Acquires the map of servers for which software parameters can be configured
/managerview/lsParameter.json	Acquires parameter information
/managerview/lsParameter.csv	Outputs parameter information to CSV file
/managerview/parameterSettingDefinition.json	Acquires the parameter settings definition
/managerview/parameterDesignDefinition.json	Acquires parameter settings information
/managerview/parameterDefinition/list.json	Acquires a list of parameter settings information
/managerview/execParameter.csv	Outputs parameter settings information to CSV file
/managerview/execScript.csv	Outputs script execution information to CSV file

Procedure for changing the audit log output destination

Use the following procedure to change the audit log output destination:

1. Rewrite the configuration file.

   The following table shows the configuration file and the location to change:

   [Windows]

Log name	Configuration file	Location to change (one location)
cfmg_audit_log	<Systemwalker Software Configuration Manager installation directory>\SWCFMGM\config \manager_base_log4j.xml	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmg_audit_log" /> element under the <appender name="cfmgaudit" class="org.apache.log4j.RollingFileAppender"> element

   [Linux]

Log name	Configuration file	Location to change (one location)
cfmg_audit_log	/etc/opt/FJSVcfmgm/config/ manager_base_log4j.xml	The <param name="File" value="/var/opt/ FJSVcfmgm/logs/cfmg_audit_log"/> element under the <appender name="cfmgaudit" class="org.apache.log4j.RollingFileAppender"> element

2. Restart Systemwalker Software Configuration Manager.

Procedure for changing the size of the audit log file

Use the following procedure to change the size of the audit log file:

1. Rewrite the configuration file.

   The location to change is shown below.

   [Windows]

Log name	Configuration file	Location to change (one location)
cfmg_audit_log	<Systemwalker Software Configuration Manager Installation directory>\SWCFMGM \config\manager_base_log4j.xml	Change the underlined part of the <param name="MaxFileSize" value="*10MB*" /> element under the <appender name="cfmgaudit" class="org.apache.log4j.RollingFileAppender"> element to a desired value. Example: value="100MB" (to change the size of the audit log file to 100 MB)

[Linux]

Log name	Configuration file	Location to change (one location)
cfmg_audit_log	/etc/opt/FJSVcfmgm/config/ manager_base_log4j.xml	Change the underlined part of the <param name="MaxFileSize" value="10MB" /> element under the <appender name="cfmgaudit"class="org.apache.log4j.Rolling FileAppender"> element to a desired value. Example: value="100MB" (to change the size of the audit log file to 100 MB)

2. Restart Systemwalker Software Configuration Manager.

Procedure for changing the number of audit log generations to be held

Use the following procedure to change the number of generations to be held for each audit log.

1. Rewrite the configuration file.

   The location to change is shown below.

   [Windows]

Log name	Configuration file	Location to change (one location)
cfmg_audit_log	<*Systemwalker Software Configuration Manager Installation directory*>\SWCFMGM \config\manager_base_log4j.xml	Change the underlined part of the <param name="MaxBackupIndex" value="*9*" /> element under the <appender name="cfmgaudit" class="org.apache.log4j.RollingFileAppender"> element to a desired value. Example: value="100" (to change the number of generations to 100)

   [Linux]

Log name	Configuration file	Location to change (one location)
cfmg_audit_log	/etc/opt/FJSVcfmgm/config/ manager_base_log4j.xml	Change the underlined part of the <param name="MaxBackupIndex" value="9" /> element under the <appender name="cfmgaudit"class="org.apache.log4j.Rolling FileAppender"> element to a desired value. Example: value="100" (to change the number of generations to 100)

2. Restart Systemwalker Software Configuration Manager.

4.1.1.3 Investigation Logs

The output format for investigation logs is as below. The output destination for investigation logs can be changed.

Output format for investigation logs

Output format
<*Date/time*> <*Log level*> <*Message ID*> <*Message text*>

Item	Description	
Date/time	YYYY-MM-DD HH:MM:SS.sss (local time)	
Log level	One of the following:	
	info	Information message
	warn	Warning message
	error	Error message
	fatal	Fatal message
Message ID	The prefix and message number - The prefix for managerview_trace_log is "MGRV". - The prefix for cfmgbase_trace_log is "BASE". - The prefix for cfmgdiscovery_trace_log is "DISCOVERY".	
Message text	Body text of the message	

Procedure for changing the investigation log output destination

Use the following procedure to change the investigation log output destination:

1. Rewrite the configuration files corresponding to each log.

   The following table shows the configuration files and the locations to change:

   [Windows]

Log name	Configuration file	Location to change (one location)
managerview_trace_log	<*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\config\manager_base_log4j.xml	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/managerview_trace_log" /> element under the <appender name="managerviewtrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgbase_trace_log		The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgbase_trace_log" /> element under the <appender name="cfmgbasetrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgdiscovery_trace_log		The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgdiscovery_trace_log" /> element under the <appender name="cfmgdiscoverytrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_trace_log	<*Systemwalker Software Configuration Manager installation directory*>	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_discovery_trace_log" /> element under

Log name	Configuration file	Location to change (one location)
	\SWCFMGM\config \manager_log4j.xml	the <appender name="cfmgbasetrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_trace_log		The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_trace_log" /> element under the <appender name="cfmgcommandtrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_base_trace_log		The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_base_trace_log" /> element under the <appender name="cfmgbasetrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_trace_log	<*Systemwalker Software Configuration Manager installation directory*> \SWCFMGM\config \manager_discovery_log4j.xml	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_discovery_trace_log" /> element under the <appender name="cfmgbasetrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_wsus_trace_log	<*Systemwalker Software Configuration Manager installation directory*> \SWCFMGM\config \manager_discovery_wsus_log4j.xml	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_discovery_wsus_trace_log" /> element under the <appender name="cfmgdiscoverytrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_yum_trace_log	<*Systemwalker Software Configuration Manager installation directory*> \SWCFMGM\config \manager_discovery_yum_log4j.xml	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_discovery_yum_trace_log" /> element under the <appender name="cfmgdiscoverytrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_fjmw_trace_log	<*Systemwalker Software Configuration Manager installation directory*> \SWCFMGM\config \manager_discovery_fjmw_log4j.xml	The <param name="File" value="<*Systemwalker Software Configuration Manager installation directory*>/SWCFMGM/logs/cfmgcommand_discovery_fjmw_trace_log" /> element under the <appender name="cfmgdiscoverytrace" class="org.apache.log4j.RollingFileAppender"> element

[Linux]

Log name	Configuration file	Location to change (one location)
managerview_trace_log	/etc/opt/FJSVcfmgm/config/manager _base_log4j.xml	The <param name="File" value="/var/opt/FJSVcfmgm/logs/managerview_trace_log" /> element under the <appender name="managerviewtrace" class="org.apache.log4j.RollingFileAppender"> element
cfmgbase_trace_log		The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgbase_trace_log" /> element under the <appender name="cfmgbasetrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgdiscovery_trace_log		The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgdiscovery_trace_log" /> element under the <appender name="cfmgdiscoverytrace"class="org.apache.log4j.RollingFileAppender"> element

Log name	Configuration file	Location to change (one location)
cfmgcommand_trace_log	/etc/opt/FJSVcfmgm/config/manager_log4j.xml	The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgcommand_trace_log" /> element under the <appender name="cfmgcommandtrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_base_trace_log		The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgcommand_base_trace_log" /> element under the <appender name="cfmgbasetrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery__trace_log	/etc/opt/FJSVcfmgm/config/manager_discovery_log4j.xml	The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgcommand_discovery_trace_log" /> element under the <appender name="cfmgdiscoverytrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_wsus_trace_log	/etc/opt/FJSVcfmgm/config/manager_discovery_wsus_log4j.xml	The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgcommand_discovery_wsus_trace_log" /> element under the <appender name="cfmgdiscoverytrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_yum_trace_log	/etc/opt/FJSVcfmgm/config/manager_discovery_yum_log4j.xml	The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgcommand_discovery_yum_trace_log" /> element under the <appender name="cfmgdiscoverytrace"class="org.apache.log4j.RollingFileAppender"> element
cfmgcommand_discovery_fjmw_trace_log	/etc/opt/FJSVcfmgm/config/manager_discovery_fjmw_log4j.xml	The <param name="File"value="/var/opt/FJSVcfmgm/logs/cfmgcommand_discovery_fjmw_trace_log" /> element under the <appender name="cfmgdiscoverytrace"class="org.apache.log4j.RollingFileAppender"> element

2. Restart Systemwalker Software Configuration Manager.

4.1.1.4 Event Logs or syslogs

Output format for event logs [Windows]

Source	Description
Systemwalker Software Configuration Manager	Message ID and message content

Output format for syslogs [Linux]

Date/time	Host name	Package name	Description
Jun 11 01:01:01	Server	FJSVcfmgm	Message ID and message content

4.1.2 Logs Output on the Business Server

The types of logs that are output on the business server are shown in the table below.

Audit logs

Log name	Description	Size	Number of generations
swcfmga_param_setting_log	Contains the information generated when parameters are set.	10 MB	10 generations (*1)
swcfmga_param_collecting_log	Contains the information generated when the parameter information is collected.		

*1: If this number is exceeded, previous generations will be deleted, starting with the oldest.

4.1.2.1 Log Output Destination

The output destination for logs is shown below.

[Windows]

Output folder	Output file
<*Systemwalker Software Configuration Manager agent installation directory*>\SWCFMGB\logs	Same as the log name.

[Linux]

Output folder	Output file
/var/opt/FJSVcfmgb/logs	Same as the log name.

4.1.3 Audit Logs for CMDB

When operations are performed on the CMDB via agents, commands, or the **Maintenance** window (displayed from the **Configuration management** window on the management console), the content of the operation is output as an audit log.

Audit logs are output to the following file:

[Windows]

```
%SWCMDB_INSTALL_PATH%\FJSVcmdbm\var\log\audit\audit.log
```

[Linux]

```
/opt/FJSVcmdbm/var/log/audit/audit.log
```

- Up to 10 generations of audit log files are kept, named "audit.log", "audit.log.1", "audit.log.2", and so on up to "audit.log.9". Each audit log is 5 MB. Once the maximum number of generations is exceeded, the oldest file (audit.log.9) is deleted.

Output format for audit logs

<*Date/time*>,<*Operation location*>,<*Execution host*>,<*Operator*>,<*Operation type*>,<*Operation target*>,<*Operation content*>,<*Execution result*>,<*Component*>,<*Additional information*>,<*Reserved area*>

- <*Date/time*>: This item indicates the date and time in "date time time-difference" format.
- <*Operation location*>: This item indicates the IP address of the machine where the operation was performed
- <*Execution host*>: This item indicates the host name of the machine where the operation was performed (the machine hosting the CMDB manager).
- <*Operator*>: This item indicates information on the agent or command that performed the operation.
  - If the operation was performed by an agent, this item indicates the agent ID. However, if it is the first operation and the agent ID has not yet been set up, this item indicates the agent type name.

  - If the operation was performed by a command, this item indicates the OS user name for the user that executed the command.
- *<Operation type>*: This item indicates the operation name.
- *<Operation target>*: This item indicates the target and result of the operation in "name=value;" format.
- *<Operation content>*: This item indicates the content of the operation. If the execution result is operation failure, this item indicates error details.
- *<Execution result>*: This item indicates one of the following values:
  - S: Success
  - F: Failure
- *<Component>*: This item indicates "FSERV".
- *<Additional information>*: This item indicates any additional information for the operation in "name=value;" format.
- *<Reserved area>*: This item is not used. No value is set for this item.

Output example

```
"2012/05/10 15:29:37.009
+0900","192.168.1.10","Server1","mdr000000000005","addEntities","id=gid000000000086;
type=LogicalServer; record=observed; version=1;","updateEntity","S","FSERV","",""

"2012/05/10 15:44:21.878
+0900","192.168.1.10","Server1","Administrator","updateEntities","id=gid000000000714; type=Patch;
record=cataloged; version=3;","updateEntity","S","FSERV","",""

"2012/05/10 15:44:21.882
+0900","192.168.1.10","Server1","Administrator","updateEntities","id=gid000000000689; type=Patch;
record=cataloged; version=3;","updateEntity","S","FSERV","",""

"2012/05/10 15:53:24.214 +0900","192.168.1.10","Server1","SYSTEM","updateEntity","id=gid000000008583;
type=Server; record=observed; version=1;","addEntity","S","FSERV","",""

"2012/05/10 15:53:48.316 +0900","192.168.1.10","Server1","SYSTEM","updateEntity","id=gid000000008584;
type=Server; record=observed; version=1;","addEntity","S","FSERV","",""

"2012/05/10 15:54:27.822 +0900","192.168.1.10","Server1","SYSTEM","addEntity","id=gid000000008583;
type=Server; record=observed; version=1;","updateEntity","S","FSERV","",""

"2012/05/10 15:55:28.062 +0900","192.168.1.10","Server1","SYSTEM","addEntity","id=gid000000008583;
type=Server; record=observed; version=1;","updateEntity","S","FSERV","",""
```

4.1.4 Audit Logs for Job Management

The history of operations performed by a user is output to an audit log. This includes when one of the tasks below is performed using a wizard on the management console or using the parameter settings command, when a task is selected from the **Task Management** window, or when the job information management command is used to execute an action:

- Patch distribution
- Patch application
- Parameter settings
- Script execution

Audit logs

Log name	Description	Size	Number of generations
swcfmg_job_audit_log	Outputs audit logs for patch distribution, patch application, parameter settings, and script execution.	10 MB	10 generations

Output destination

The output destination for logs is shown below.

[Windows]

Output folder	Description
<Systemwalker Software Configuration Manager installation directory>\SWCFMGM\logs	Same as the log name.

[Linux]

Output folder	Description
/var/opt/FJSVcfmgm/logs	Same as the log name.

Output format

The output format is shown below. It is possible to change the output destination for audit logs, the file size, and the number of generations held.

Output format
<*Operation date/time*>,<*User ID*>,<*Tenant name*>,<*Operation type*>,<*Parameters*>,<*Operation result*>

Item	Description
Operation date/time	YYYY-MM-DD HH:MM:SS.sss (local time)
User ID	The user ID of the user that executed the operation
Tenant name	The tenant name of the user that executed the operation Note: For operations performed by infrastructure administrators, "admin" is output.
Operation type	A string indicating the content of the operation
Parameters	The parameters specified by the request
Operation result	"SUCCESS" if the operation was successful and "FAILURE" if the operation failed

Operation type

Operation type	Description	Parameter
patchDistributionStart	Requests patch distribution from the **Patch Application** wizard	jobid="*<job ID>*"&jobname="*<job name>*"
patchApplicationStart	Requests patch application from the **Patch Application** wizard	jobid="*<job ID>*"&jobname="*<job name>*"
parameterSettingStart	Requests parameter settings from the **Parameter Settings** wizard or from the parameter settings command	jobid="*<job ID>*"&jobname="*<job name>*"

Operation type	Description	Parameter
scriptExecutionStart	Request script execution from the **Script Execution** wizard	jobid="*<job ID>*"&jobname="*<job name>*"
patchDistributionAction	After requesting patch distribution, execute an action using the job information management command After requesting patch distribution, select a task from the **Task Management** window	jobid="*<job ID>*"&jobname="*<job name>*"&processname="*<process name>*"&processorder="*<process order>*"&processtype="*<process type>*"&action="*<action>*"
patchApplicationAction	After requesting patch application, execute the action using the job information management command After requesting patch application, select a task from the **Task Management** window	jobid="*<job ID>*"&jobname="*<job name>*"&processname="*<process name>*"&processorder="*<process order>*"&processtype="*<process type>*"&action="*<action>*"
parameterSettingAction	After requesting parameter settings, execute an action using the job information management command After requesting parameter settings, select a task from the **Task Management** window	jobid="*<job ID>*"&jobname="*<job name>*"&processname="*<process name>*"&processorder="*<process order>*"&processtype="*<process type>*"&action="*<action>*"
scriptExecutionAction	After requesting script execution, execute an action using the job information management command After requesting script execution, select a task from the **Task Management** window	jobid="*<job ID>*"&jobname="*<job name>*"&processname="*<process name>*"&processorder="*<process order>*"&processtype="*<process type>*"&action="*<action>*"

The values below will be output to the parameters. The output values are viewed differently depending on whether the **Task Management** window or the job information management command was used.

Parameter	Description	
	Job management	Task management
<job ID>	Job ID	Internal information.
<job name>	Job name	Name of the process instance
<process name>	Process name	Information about the activity generated by the task. Refer to the table below for information on the possible values and their corresponding activities.
<process type>	Process type	Internal information. Can have one of the following values: acceptance scheduleWait checkServer scriptExecution patchApplication patchDistribution

Parameter	Description	
	Job management	Task management
		parameterSetting preScriptExecution postScriptExecution reboot
<action>	Executed action	Can have one of the following values, in accordance with the selected task: retry retryall cancel continue

The possible values of the *<process name>* parameter are listed below, with their corresponding activity names:

Process name	Activity name
Schedule standby	Schedule cancelation
Server operation check	Server error check
Pre-execution script	Pre-execution script error check
Patch distribution (for Fujitsu middleware patches)	Patch distribution/application failure check
Patch application (for operating system patches)	
Parameter settings	Parameter settings failure check
Script execution	Script execution failure check
Post-execution script	Post-execution script error check
Restart operating system	OS restart failure check

4.2 Backing Up and Restoring the Admin Server

This section explains how to back up and restore the Systemwalker Software Configuration Manager admin server.

4.2.1 Notes on Backup and Restoration

This section provides notes regarding Systemwalker Software Configuration Manager backup and restore. Refer to "Mechanism of Backup and Restoration" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide* if linked to ServerView Resource Orchestrator.

Notes on operations that use coexistence with Systemwalker Operation Manager or Systemwalker Runbook Automation

Systemwalker Software Configuration Manager backup/restore is executed at the same time as Systemwalker Runbook Automation or Systemwalker Operation Manager backup/restore.

In order to use operations that use coexistence with Systemwalker Runbook Automation or Systemwalker Operation Manager, backup/restore Systemwalker Runbook Automation or Systemwalker Operation Manager using the same backup/restore procedure that is used for Systemwalker Software Configuration Manager. Do not execute backup/restore on the standalone Systemwalker Runbook Automation or Systemwalker Operation Manager.

Notes on the environments where backups and restorations are performed

The backup and restoration environments must follow the criteria below:

- When OS are different in from backup and to restore

  However, execution will be possible if the operating system versions of the same vendor are different.

- When the product installation directories are different [Windows]
- When the host information (host name/IP address) is different
- When the code types are different
- When the Process Management database storage directories are different
- When the CMDB database storage directories are different
- When the sub system number with using scheduling are different
- When the Web server (Interstage HTTP Server), message broker, and server function port numbers are different
-

Notes on the timing of backups and restorations

- When backup and restore are executed, it will be necessary to restart Systemwalker Software Configuration Manager. When linked to ServerView Resource Orchestrator, it will be necessary to restart Systemwalker Software Configuration Manager and ServerView Resource Orchestrator. For this reason, the operator should execute backup and restore in a time zone that does not use Systemwalker Software Configuration Manager and ServerView Resource Orchestrator.
- The statuses of patch application, patch distribution, parameter setting, and script execution that were in effect at the time of backup will be restored. If restore is performed using backup resources for which script execution is in progress, operation will be resumed. Before performing backup, confirm that patch application, patch distribution, parameter setting, and script execution are not running.
- If backup is executed while a Systemwalker Operation Manager job/job net/group is running, and that information is then restored, the job/job net/group that is running will end abnormally with the exit code 239. It is recommended that you execute this operation in a time zone in which the job/job net/group are not executed.

Handling backup resources

- When moving backup resources to the restoration target, move the directory specified as the backup directory and all its files.
- Do not delete the backup resources in the directory specified as the backup directory until the restoration completes.
- The backup command cannot be used to back up data to the following types of media:
  - Optical disks such as CD-Rs and DVD-Rs

    To save user assets to optical disks, first back up the data to the local disk, and then, write it to the media using a dedicated optical disk writer, for example.

  - Network paths [Windows]
  - Directories whose pathnames include spaces

Operations during backups and restorations

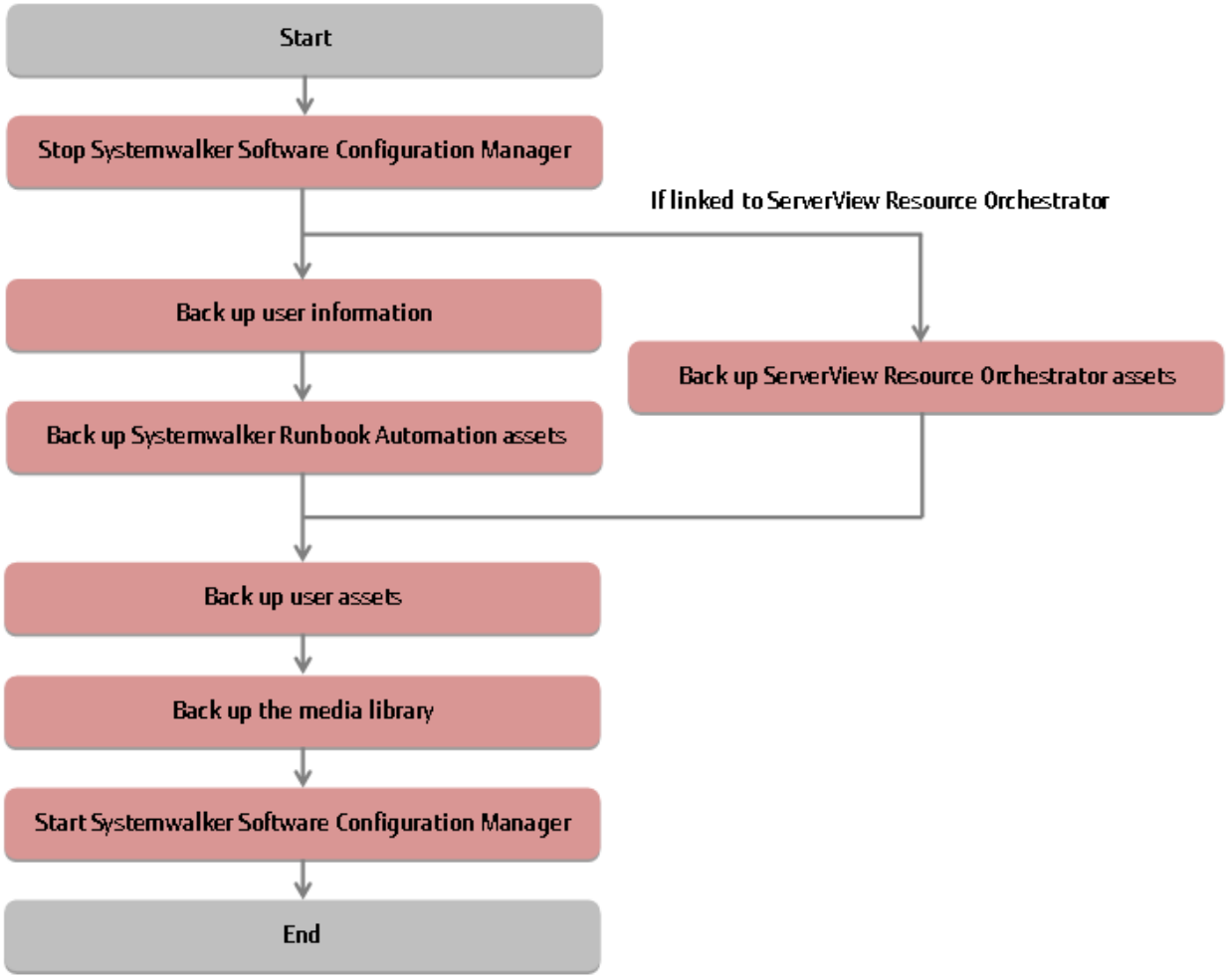
Do not operate the following middleware products during backups or restorations:

- Interstage Application Server
- Systemwalker Runbook Automation
- Systemwalker Operation Manager
- Systemwalker Centric Manager
- Systemwalker Software Configuration Manager

4.2.2 Backing Up the Admin Server

This section explains how to back up the Systemwalker Software Configuration Manager admin server.

Note that Systemwalker Software Configuration Manager must be stopped before performing backup (refer to "Starting and Stopping Systemwalker Software Configuration Manager" for details).



- 4.2.2.2 Backing Up User Information
- 4.2.2.3 Backing Up Systemwalker Runbook Automation Assets
- 4.2.2.4 Backing Up ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)
- 4.2.2.5 Backing Up User Assets
- 4.2.2.6 Backing up the Media Library

4.2.2.1 Required Disk Space for Backup

Before backing up Systemwalker Software Configuration Manager, estimate the amount of disk space required for each asset, as explained below:

Asset	Required disk space

Systemwalker Runbook Automation	**[Windows]**
	`Required disk space =`
	`  size of assets in the process management db that will be backed up (*1)`
	`+ size of %SWRBA_HOME% and its subdirs (*2)`

Asset	Required disk space
	+ size of %SWRBA_OMGR% and its subdirs (*3) + size of %SWCMDB_INSTALL_PATH%\FJSVcmdbm\Shunsaku\directorData and its subdirs + size of %SWCMDB_INSTALL_PATH%\FJSVcmdbm\fcmdb\file + 100 MB *1: Size specified for the process management database directory during setup *2: %SWRBA_HOME% contains the Systemwalker Runbook Automation (which is included in Systemwalker Software Configuration Manager) installation directory *3: %SWRBA_OMGR% contains the Systemwalker Operation Manager (which is included with Systemwalker Software Configuration Manager) installation directory **[Linux]** Required disk space = size of assets in the process management db that will be backed up (*1) + size of /etc/opt/FJSVswrbam + size of /var/opt/FJSVswrbam + size of /var/opt/FJSVJMCMN/etc + size of /var/opt/FJSVjmcal + size of /var/opt/FJSVJOBSC + size of /var/opt/FJSVfwseo/config/JM (*2) + size of /opt/FJSVJOBSC/bin + size of /etc/mjes + size of /var/spool/mjes + size of /opt/FJSVcmdbm/var/Shunsaku/directorData + size of /opt/FJSVcmdbm/var/fcmdb/file + 100 MB *1: Size specified for the process management database directory during setup *2: If either of the conditions below is satisfied, replace "FJSVfwseo" with "FJSVfwsec" in your calculation: - After installing Systemwalker Software Configuration Manager, Systemwalker Centric Manager V13.4.0 is installed - A more recent version than Systemwalker Centric Manager V13.4.0 is installed (regardless of whether installed before or after Systemwalker Software Configuration Manager)
ServerView Resource Orchestrator	Refer to "Mechanism of Backup and Restoration" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide* for details.
User assets	**[Windows]** Required disk space = size of <*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\SWCFMGDB + 1 MB *1: Size specified for the process management database directory during setup **[Linux]** Required disk space = size of /var/opt/FJSVcfmgm/SWCFMGMDB + 1MB
Media library	Required disk space = size of <*media library directory*>

4.2.2.2 Backing Up User Information

User information is backed up when the directory service is backed up. Refer to the relevant ServerView Operations Manager manual below for information on how to back up the directory service. If linked to ServerView Resource Orchestrator, then use it to back up user information.

[Windows]

- "Backing up and restoring OpenDJ data on Windows systems" in *User Management in ServerView*

[Linux]

- "Backing up and restoring OpenDJ data on Linux systems" in *User Management in ServerView*

4.2.2.3 Backing Up Systemwalker Runbook Automation Assets

CMDB assets are backed up when Systemwalker Runbook Automation assets are backed up using the command below from the command prompt (refer to the *Reference Guide* for information on commands):

Command	Overview
swrba_backup	Backs up Systemwalker Runbook Automation assets.

- Systemwalker Runbook Automation assets must be backed up using a user account with administrator privileges for the operating system (administrator or root).
- Specify the full path of the backup target directory (note that the path can contain only halfwidth alphanumeric characters, must not include symbols or spaces, and must be up to 32 characters long).
- The specified backup target directory must either be empty or not exist.

4.2.2.4 Backing Up ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)

Use offline backup to back up the ServerView Resource Orchestrator assets. CMDB assets are not backed up by online backups. Refer to "Offline Backup of the Admin Server" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide* for details.

4.2.2.5 Backing Up User Assets

To back up user assets, use the following command from a command prompt. Refer to "Command Reference" in the *Reference Guide* for information on this command.

Command name	Overview
swcfmg_backup	This command backs up user assets.

- User assets must be backed up using OS administrator privileges (administrator or root).
- For the backup destination, specify a directory with sufficient disk space.
- If the disk runs out of space during the backup, all of the data at the backup destination will be deleted.

4.2.2.6 Backing up the Media Library

The Systemwalker Software Configuration Manager repository stores assets associated with Fujitsu middleware patches.

To back up the media library, use the following command from a command prompt. Refer to "Command Reference" in the *Reference Guide* for information on this command.

Command name	Overview
swcfmg_repository_backup	This command backs up the media library.

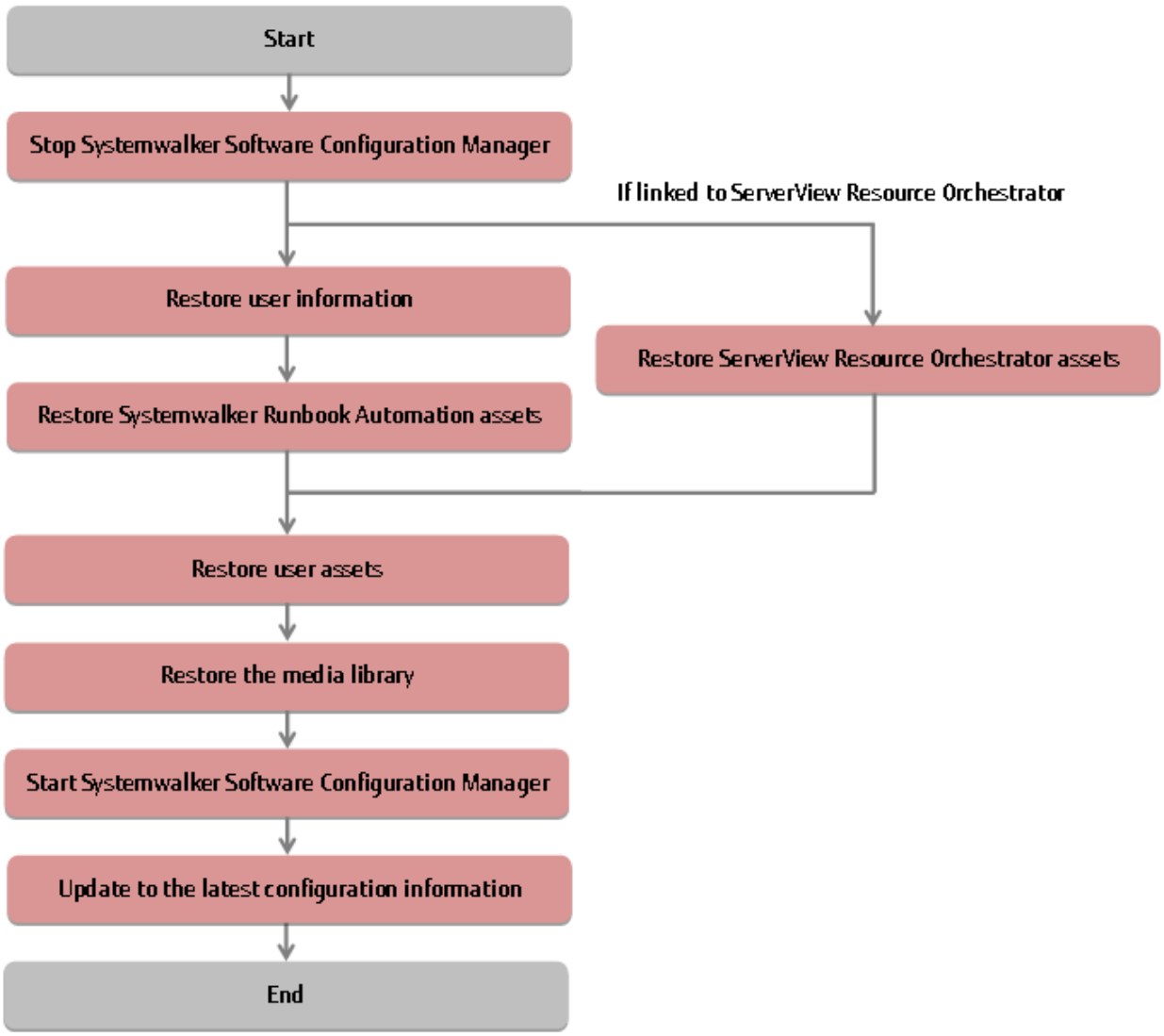
Note

- The media library must be backed up using OS administrator privileges (administrator or root).
- For the backup destination, specify a directory with sufficient disk space.
- If the disk runs out of space during the backup, all of the data at the backup destination will be deleted.

4.2.3 Restoring the Admin Server

This section explains how to restore the Systemwalker Software Configuration Manager admin server.

Note that Systemwalker Software Configuration Manager must be stopped before restoring (refer to "Starting and Stopping Systemwalker Software Configuration Manager" for details)



- 4.2.3.1 Restoring User Information
- 4.2.3.2 Restoring Systemwalker Runbook Automation Assets
- 4.2.3.3 Restoring ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)
- 4.2.3.4 Restoring User Assets
- 4.2.3.5 Restoring the Media Library
- 4.2.3.6 Updating to the Latest Configuration Information

4.2.3.1 Restoring User Information

Restore user information that was backed up at "Backing Up User Information" (refer to the relevant ServerView Operations Manager manual below for details). If linked to ServerView Resource Orchestrator, then use it to restore user information.

[Windows]

- "Backing up and restoring OpenDJ data on Windows systems" in *User Management in ServerView*

[Linux]

- "Backing up and restoring OpenDJ data on Linux systems" in *User Management in ServerView*

4.2.3.2 Restoring Systemwalker Runbook Automation Assets

Restore Systemwalker Runbook Automation assets backed up at "Backing Up Systemwalker Runbook Automation Assets" using the command below from the command prompt (refer to the *Reference Guide* for information on commands):

Command	Overview
swrba_restore	Restore user assets.

- Systemwalker Runbook Automation assets must be restored using a user account with administrator privileges for the operating system (administrator or root).
- Specify the full path of the backup target directory (note that the path can contain only halfwidth alphanumeric characters, must not include symbols or spaces, and must be up to 32 characters long).

4.2.3.3 Restoring ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)

Restore ServerView Resource Orchestrator assets backed up at "Backing Up ServerView Resource Orchestrator Assets (when Linked to ServerView Resource Orchestrator)" (refer to "Restoring the Admin Server" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide* for details).

4.2.3.4 Restoring User Assets

Restore user assets backed up at "Backing Up User Assets", use the following command from a command prompt. Refer to "Command Reference" in the *Reference Guide* for information on this command.

Command name	Overview
swcfmg_restore	This command restores user assets.

User assets must be restored using OS administrator privileges (administrator or root).

4.2.3.5 Restoring the Media Library

Restore the media library backed up at "Backing Up the Media Library" , use the following command from a command prompt. Refer to "Command Reference" in the *Reference Guide* for information on this command.

Command name	Overview
swcfmg_repository_restore	This command restores the media library.

Note

The media library must be restored using OS administrator privileges (administrator or root).

4.2.3.6 Updating to the Latest Configuration Information

After restoring Systemwalker Software Configuration Manager, update to the latest configuration information.

The procedure for updating to the latest configuration information is described below:

1. Execute cmdbrefresh to update the CMDB information:

   [Windows]

   ```
   %SWCMDB_INSTALL_PATH%\FJSVcmdbm\bin\cmdbrefresh.exe -a -q
   ```

   [Linux]

   ```
   /opt/FJSVcmdbm/bin/cmdbrefresh -a -q
   ```

2. Perform discovery to update to the latest patch information and Fujitsu middleware product information:

   [Windows]

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin
   \swcfmg_patch_updateinfo.exe -repository
   ```

   [Linux]

   ```
   /opt/FJSVcfmgm/bin/swcfmg_patch_updateinfo -repository
   ```

   To discover only particular information, execute the command below:

   - Windows patch information

     [Windows]

     ```
     <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin
     \swcfmg_patch_updateinfo.exe -t windows -repository
     ```

     [Linux]

     ```
     /opt/FJSVcfmgm/bin/swcfmg_patch_updateinfo -t windows -repository
     ```

   - Linux patch information

     [Windows]

     ```
     <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin
     \swcfmg_patch_updateinfo.exe -t linux
     ```

     [Linux]

```
/opt/FJSVcfmgm/bin/swcfmg_patch_updateinfo -t linux
```

- Fujitsu middleware patch information and Fujitsu middleware product information

  [Windows]

```
<Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin
\swcfmg_patch_updateinfo.exe -t middleware
```

  [Linux]

```
/opt/FJSVcfmgm/bin/swcfmg_patch_updateinfo -t middleware
```

3. Perform discovery for the parameter information:

   [Windows]

```
<Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin
\swcfmg_param_updateinfo.exe
```

   [Linux]

```
/opt/FJSVcfmgm/bin/swcfmg_param_updateinfo
```

4.3 Changing the Systemwalker Software Configuration Manager Environment

4.3.1 Changing the Operating Environment for WSUS

To change the operating environment for Microsoft Windows Server Update Services (WSUS), perform the following setup operation.

Adding a WSUS server

- Install a Systemwalker Software Configuration Manager agent on the WSUS server to be added.
- Implement changes to the configuration between WSUS servers by referring to the WSUS manuals.

  (For example, changing upstream or downstream servers, migrating the managed computers, etc.)
- To take a business server that was being managed by an existing WSUS server and have it managed by an additional WSUS server, use the following procedure to migrate the managed computer:

  1. Delete the business server to be migrated from the list of computers managed by the existing WSUS server.
  2. Execute the connection destination repository server registration command (swcfmg_register_repsv) on the business server that has been migrated in order to register the additional WSUS server.

     Example:

```
swcfmg_register_repsv.bat wsus -to 10.10.10.10
```

     Refer to the *Reference Guide* for information on the connection destination repository server registration command (swcfmg_patch_importrpmpolicy).
- Register the additional WSUS server on the admin server.

  Modify the discovery definition file.

  Example: Adding the WSUS server with IP address 11.11.11.11 to an environment where only the WSYS server with IP address 10.10.10.10 had been used

```
<?xml version="1.0" encoding="utf-8"?>
<Discovery>
  <RepositoryServers>
    <WSUS>
      <entry key="enable-wsus">true</entry>
      <entry key="ipaddress">10.10.10.10</entry>
    </WSUS>
    <WSUS>
      <entry key="enable-wsus">true</entry>
      <entry key="ipaddress">11.11.11.11</entry>
    </WSUS>
  </RepositoryServers>
</Discovery>
```

Refer to the *Reference Guide* for information on the discovery definition file.

There is no need to restart Systemwalker Software Configuration Manager.

Removing a WSUS server

- Uninstall the Systemwalker Software Configuration Manager agent from the WSUS server to be removed.
- Implement changes to the configuration between WSUS servers by referring to the WSUS manuals.

  (For example, changing upstream or downstream servers, migrating the managed computers, etc.)
- To take a business server that was being managed by the WSUS server to be removed and have it managed by another WSUS server, use the following procedure to migrate the managed computer:

  1. Execute the connection destination repository server registration command (swcfmg_register_repsv) on the business server that has been migrated.

     Example:

     ```
     swcfmg_register_repsv.bat wsus -to 10.10.10.10
     ```

     Refer to the *Reference Guide* for information on the connection destination repository server registration command (swcfmg_patch_importrpmpolicy).
- Delete the WSUS server to be removed from the management target for the admin server.

  Modify the discovery definition file.

  Example: Removing a WSUS server with IP address 10.10.10.10

```
<?xml version="1.0" encoding="utf-8"?>
<Discovery>
  <RepositoryServers>
    <WSUS>
      <entry key="enable-wsus">false</entry>
      <entry key="ipaddress">10.10.10.10</entry>
    </WSUS>
  </RepositoryServers>
</Discovery>
```

Note: Omitting the <WSUS> element has the same result.

Refer to the *Reference Guide* for information on the discovery definition file.

There is no need to restart Systemwalker Software Configuration Manager.

4.3.2 Changing the Configuration of the yum Repository Server

If the configuration of the yum repository server has been changed, the yum caches for Linux business servers (yum clients) must be cleared. If the yum cache needs to be cleared, execute the swcfmg_notify_yumcacheclean command (the yum cache cleanup

notification command). Refer to the *Reference Guide* for information on the swcfmg_notify_yumcacheclean command (the yum cache cleanup notification command).

- Cases where the yum caches for Linux business servers (yum clients) must be cleared:
  - When a repository server has been added or removed
  - When a RPM package has been added or removed
  - When the storage destinations for RPM packages have been changed (added or removed)
  - When the communication protocols used between the repository server and yum clients have been changed (added or removed)

These operations are performed by infrastructure administrators.

Note

Do not decide whether to clear the yum caches for Linux business servers (yum clients) based on messages etc. The infrastructure administrator that manages the yum repository server must always execute the yum cache cleanup notification command whenever the configuration of the yum repository server is changed.

If the configuration of the yum repository server is changed but the yum cache cleanup notification command is not executed, then historic information will be displayed in the management console for the application status of Linux patches, even if discovery is performed.

If RPM packages have been registered with the yum repository server and set in the Linux patch management target definitions but the Linux patch information in the management console does not show the RPM packages that should have been registered with the yum repository server, then it is possible that the yum caches on Linux business servers have not been recreated. Perform discovery after executing the yum cache cleanup notification command. Refer to "2.5.2 Defining the Linux Patch Management Target" for information on how to define the Linux patch management target.

If the RPM packages registered with the yum repository server are still not displayed in the patch list in the management console, this means that no Linux business servers to which these RPM packages can be applied have been deployed at the moment.

4.3.3 Changing Discovery Schedules and Configuration Baseline Creation Schedules

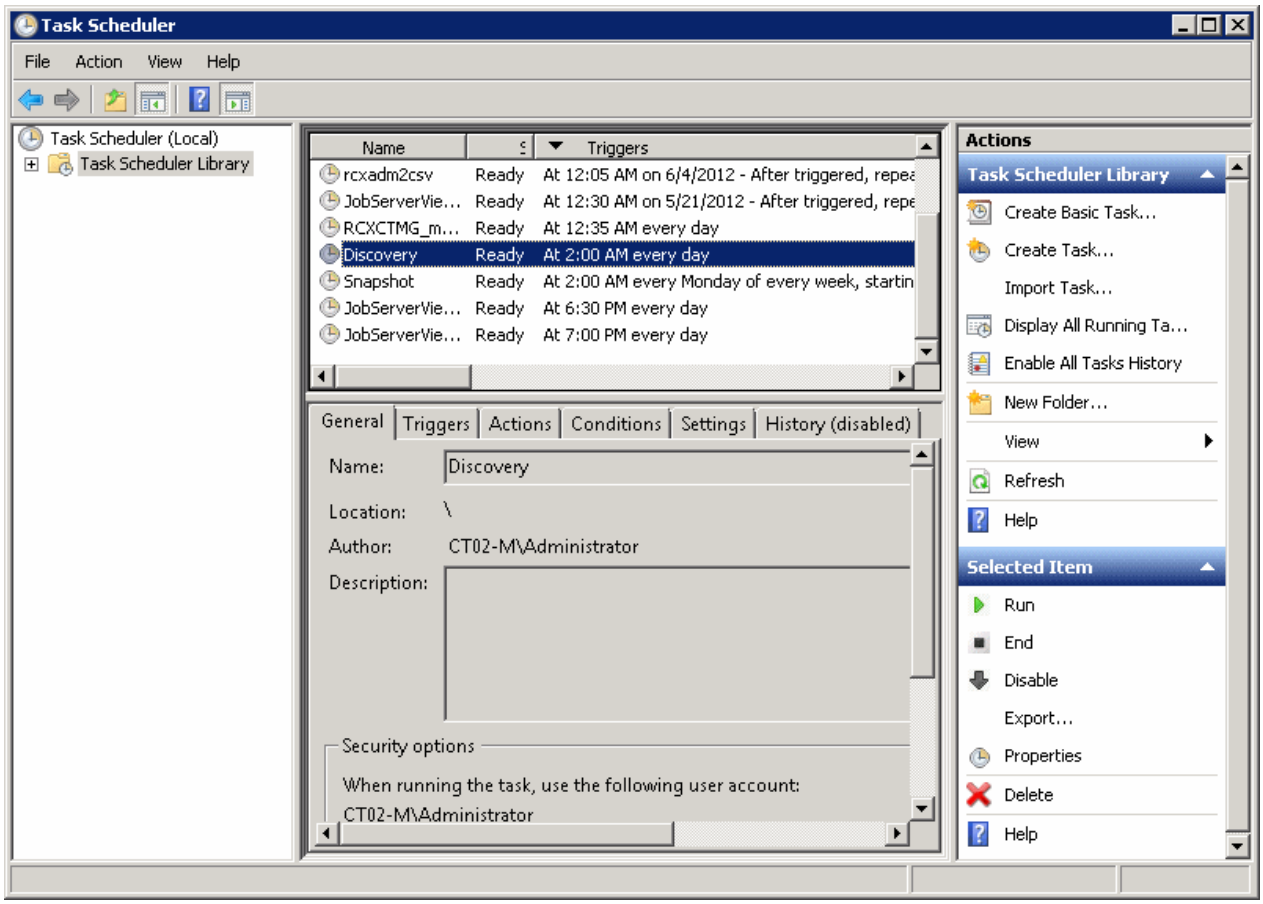
[Windows]

This section describes the procedure for changing the discovery schedule or configuration baseline creation schedule that has been registered with the Task Scheduler.

1. Log in to Windows using an account that belongs to the Administrators group.

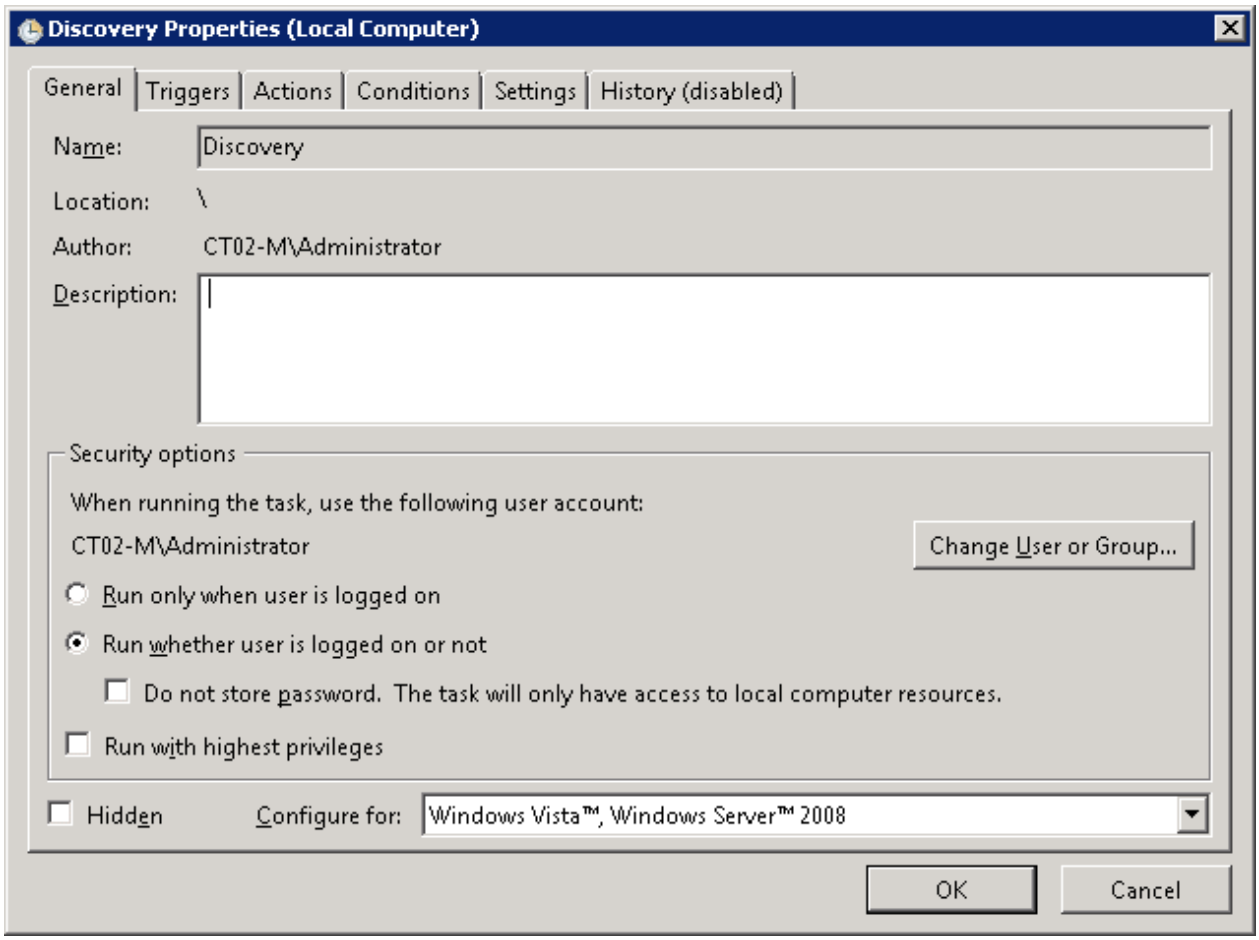
2. Select **Start** >> **Administrative Tools** >> **Task Scheduler**.

   The **Task Scheduler** window will be displayed.



3. Right-click on the task to be changed, and then select **Properties**.

   The properties of the task will be displayed.



4. Select the **Triggers** tab and change the schedule.
5. Click the **OK** button to close the window.

[Linux]

This section describes the procedure for changing the discovery schedule or configuration baseline creation schedule that has been registered with cron.

Perform the following procedure as the root user:

1. Execute the following command to edit the schedule definitions:

```
>crontab -e
```

   Executing the "crontab -e" command starts the vi editor. Refer to the vi editor manuals for information on the vi editor.

   Example: Discovering all information every day at 2:00

```
0 2 * * * /opt/FJSVcfmgm/bin/swcfmg_patch_updateinfo -repository > /dev/null 2>&1
```

   Example: Creating a configuration baseline every Monday at 6:00

```
0 6 * * 1 /opt/FJSVcmdbm/bin/snapcreate.sh -q > /dev/null 2>&1
```

   Refer to "Registering Discovery Schedules" and "Registering a Configuration Baseline Creation Schedule" in the *Installation Guide* for information on schedule definitions.

4.3.4 Migrating the Media Library

If there is not enough disk space for the media library, take the following actions:

- Delete unnecessary files from the disk for the media library
- Increase the amount of disk space available for the media library.

However, if these actions are difficult, migrate the media library to resolve the disk space shortage.

The procedure for migrating the media library is shown below.

1. Stop Systemwalker Software Configuration Manager.

   [Windows]

   <*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\bin\swcfmg_stop

   [Linux]

   /opt/FJSVcfmgm/bin/swcfmg_stop

2. Back up the media library. Refer to "Command Reference" in the *Reference Guide* for information on this command.

   [Windows]

   <*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\bin\swcfmg_repository_backup -d <*Output path*>

   [Linux]

   /opt/FJSVcfmgm/bin/swcfmg_repository_backup -d <*Output path*>

3. Restore the media library. For the "-to" option, specify the migration destination for the media library.

   For the migration destination, specify a directory with sufficient free space. Refer to "Command Reference" in the *Reference Guide* for information on this command.

   [Windows]

   <*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM\bin\swcfmg_repository_restore -d <*Path to the directory where the backup data is stored*> -to <*Path to the migration destination for the media library*>

   [Linux]

   /opt/FJSVcfmgm/bin/swcfmg_repository_restore -d <*Path to the directory where the backup data is stored*> -to <*Path to the migration destination for the media library*>

4. When you migrate the media library, the definition file changes. For this reason, you must perform a backup again if various configuration files were backed up before migrating the media library. Refer to "4.2.2.5 Backing Up User Assets" for information on how to back up various configuration files.

5. Restart Systemwalker Software Configuration Manager.

   [Windows]

   <*Systemwalker Software Configuration Manager installation directory*>\SWCFMGM \bin\swcfmg_start

   [Linux]

   /opt/FJSVcfmgm/bin/swcfmg_start

4.3.5 Changing Passwords of Users who Use this Product

This section explains how to change the passwords of users of the following directory services used with this product:

- User for process control
- User for schedule startup
- LDAP administrator

4.3.5.1 Changing the Password of a User for Process Control

The procedure for changing the password of a user for process control is described below (note that it cannot be changed if linked to ServerView Resource Orchestrator):

1. Stop Systemwalker Software Configuration Manager.

   Refer to "3.2 Stopping Systemwalker Software Configuration Manager" for details.

2. Use ldappasswordmodify to change the password of the directory service user:

   [Windows]

   ```
   <OpenDS installation directory>\bat\ldappasswordmodify.bat -p 1473 -D "cn=Directory Manager" -w <LDAP admin DN password> -a "dn:cn=<user for process control>,ou=users,dc=fujitsu,dc=com" -n <new password> -c <current password>
   ```

   [Linux]

   ```
   <OpenDS installation directory>/bin/ldappasswordmodify -p 1473 -D "cn=Directory Manager" -w <LDAP admin DN pwd> -a "dn:cn=<user for process control>,ou=users,dc=fujitsu,dc=com" -n <new password> -c <current password>
   ```

   The default value of the LDAP administrator DN password is "admin". Specify the value that was set for the user for process control during setup of this product. An example is shown below:

   Example:

   [Windows]

   ```
   "C:\Program Files (x86)\Fujitsu\ServerView Suite\opends\bat\ldappasswordmodify.bat" -p 1473 -D "cn=Directory Manager" -w admin -a "dn:cn=swrbaadmin,ou=users,dc=fujitsu,dc=com" -n systemwalker#2 -c systemwalker#1
   ```

   [Linux]

   ```
   /opt/fujitsu/ServerViewSuite/opends/bin/ldappasswordmodify -p 1473 -D "cn=Directory Manager" -w admin -a "dn:cn=swrbaadmin,ou=users,dc=fujitsu,dc=com" -n systemwalker#2 -c systemwalker#1
   ```

3. Use swcfmg_environment to set the new password for Systemwalker Software Configuration Manager - specify the same password specified in the previous step:

   [Windows]

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_environment -set -key job.process.controller.password -value <new password>
   ```

   [Linux]

   ```
   /opt/FJSVcfmgm/bin/swcfmg_environment -set -key job.process.controller.password -value <new password>
   ```

4. Use swrba_regist_password to set the new password for Systemwalker Runbook Automation - select "User for process control", and then enter the same password specified in the previous step (refer to "swrba_regist_password(Process Control Password Registration)" in the *Reference Guide* for details):

   [Windows]

```
%SWRBA_HOME%\bin\swrba_regist_password (*1)
```

*1: %SWRBA_HOME% contains the Systemwalker Runbook Automation (which is included with Systemwalker Software Configuration Manager) installation directory.

[Linux]

```
/opt/FJSVswrbam/bin/swrba_regist_password
```

5. Restart Systemwalker Software Configuration Manager.

   Refer to "3.1 Starting Systemwalker Software Configuration Manager" for details.

4.3.5.2 Changing the Password of a User for Schedule Startup

The procedure for changing the password of a user for schedule startup is described below (note that it cannot be changed if linked to ServerView Resource Orchestrator):

1. Stop Systemwalker Software Configuration Manager.

   Refer to "3.2 Stopping Systemwalker Software Configuration Manager" for details.

2. Use ldappasswordmodify to change the password of the directory service user:

   [Windows]

   ```
   <OpenDS installation directory>\bat\ldappasswordmodify.bat -p 1473 -D "cn=Directory Manager" -w <LDAP admin DN password> -a "dn:cn=<user for schedule startup>,ou=users,dc=fujitsu,dc=com" -n <new password> -c <current password>
   ```

   [Linux]

   ```
   <OpenDS installation directory>/bin/ldappasswordmodify -p 1473 -D "cn=Directory Manager" -w <LDAP admin DN password> -a "dn:cn=<user for schedule startup>,ou=users,dc=fujitsu,dc=com" -n <new password> -c <current password>
   ```

   The default value of the LDAP administrator DN password is "admin". Specify the value that was set for the user for schedule startup during setup of this product. An example is shown below:

   Example:

   [Windows]

   ```
   "C:\Program Files (x86)\Fujitsu\ServerView Suite\opends\bat\ldappasswordmodify.bat" -p 1473 -D "cn=Directory Manager" -w admin -a "dn:cn=swrbasch,ou=users,dc=fujitsu,dc=com" -n systemwalker#1 -c systemwalker#2
   ```

   [Linux]

   ```
   /opt/fujitsu/ServerViewSuite/opends/bin/ldappasswordmodify -p 1473 -D "cn=Directory Manager" -w admin -a "dn:cn=swrbasch,ou=users,dc=fujitsu,dc=com" -n systemwalker#1 -c systemwalker#2
   ```

3. Use swrba_regist_password to set the new password for Systemwalker Runbook Automation - select "User for schedule startup", and then enter the same password specified in the previous step (refer to "swrba_regist_password(Process Control Password Registration)" in the *Reference Guide* for details):

   [Windows]

   ```
   %SWRBA_HOME%\bin\swrba_regist_password (*1)
   ```

   *1: %SWRBA_HOME% contains the Systemwalker Runbook Automation (which is included with Systemwalker Software Configuration Manager) installation directory.

   [Linux]

   ```
   /opt/FJSVswrbam/bin/swrba_regist_password
   ```

4. Restart Systemwalker Software Configuration Manager.

   Refer to "3.1 Starting Systemwalker Software Configuration Manager" for details.

4.3.5.3 Changing the Password of an LDAP Administrator DN

The procedure for changing the password of an LDAP administrator DN is described below (if linked to ServerView Resource Orchestrator, then use it instead - refer to "Reconfiguring Single Sign-On" in the *ServerView Resource Orchestrator Cloud Edition Operation Guide* for details):

1. Stop Systemwalker Software Configuration Manager.

   Refer to "3.2 Stopping Systemwalker Software Configuration Manager" for details.

2. Change the LDAP administrator DN password. Refer to the ServerView Operations Manager manual.

   - "Configuring directory service access" in *User Management in ServerView*

3. Execute the following command in the command prompt to set the new password for Systemwalker Software Configuration Manager:

   [Windows]

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_environment -set -key user.ldap.administrator.password -value <new password>
   ```

   [Linux]

   ```
   /opt/FJSVcfmgm/bin/swcfmg_environment -set -key user.ldap.administrator.password -value <new password>
   ```

4. Use swrba_regist_password to set the new password for Systemwalker Runbook Automation - select "LDAP administrator DN", and then enter the same password specified in the previous step (refer to "swrba_regist_password(Process Control Password Registration)" in the *Reference Guide* for details):

   [Windows]

   ```
   %SWRBA_HOME%\bin\swrba_regist_password (*1)
   ```

   *1: %SWRBA_HOME% contains the Systemwalker Runbook Automation (which is included with Systemwalker Software Configuration Manager) installation directory.

   [Linux]

   ```
   /opt/FJSVswrbam/bin/swrba_regist_password
   ```

5. Restart Systemwalker Software Configuration Manager.

   Refer to "3.1 Starting Systemwalker Software Configuration Manager" for details.

4.3.6 Changing Passwords of Operating System Users who Use this Product

The procedure for changing the passwords of the following users of operating systems used with this product is described below:

[Windows]

- swcfmgdb
- swrbadbuser
- swrbajobuser

[Linux]

- swcfmgdb
- swrbadbuser

4.3.6.1 Changing the Password for swcfmgdb

The procedure for changing the password for swcfmgdb is described below:

1. Stop Systemwalker Software Configuration Manager.

   Refer to "3.2 Stopping Systemwalker Software Configuration Manager" for details.

2. Change the password.

   If using Windows, execute the command below:

   ```
   net user swcfmgdb <new password>
   ```

3. If using Windows, change the password of the service startup account.

   The service below will be changed:

   - Systemwalker Software Configuration Manager DataBase Service

4. Restart Systemwalker Software Configuration Manager.

   Refer to "3.1 Starting Systemwalker Software Configuration Manager" for details.

4.3.6.2 Changing the Password for swrbadbuser and swrbajobuser

The procedure for changing the password for swrbadbuser and swrbajobuser is described below (note that it cannot be changed if linked to ServerView Resource Orchestrator):

1. Stop Systemwalker Software Configuration Manager.

   Refer to "3.2 Stopping Systemwalker Software Configuration Manager" for details.

2. Stop the Java EE service.

   a. Stop the message broker by using the Windows(R) **Services** feature as a user with administrator privileges.

      Click **Control Panel** >> **Administrative Tools** >> **Services,** select **Interstage Message Queue Broker** service, and then click **Stop**.

   b. Stop the Interstage Java EE Node Agent service (execute the command below as a user with administrator privileges):

      ```
      Ijnastop
      ```

   c. Stop the Interstage Java EE DAS service (execute the command below as a user with administrator privileges):

      ```
      Ijdastop
      ```

3. Change the password.

4. If using Windows, change the password of the service startup account.

   The services below will be changed:

   - If swrbajobuser is being changed:
     - Systemwalker MpMjes*n* (where *n* is the subsystem number specified during installation - default value is 9).
     - Interstage Java EE Node Agent
   - If swrbadbuser is being changed:
     - Systemwalker Runbook Automation DB Service

5. Restart the Java EE service.

   a. Start the Interstage Java EE DAS service (execute the command below as a user with administrator privileges):

      ```
      Ijdastop
      ```

b. Start the Interstage Java EE Node Agent service (execute the command below as a user with administrator privileges):

```
Ijnastop
```

c. Start the message broker by using the Windows(R) **Services** feature as a user with administrator privileges.

Click **Control Panel** >> **Administrative Tools** >> **Services,** select **Interstage Message Queue Broker** service, and then click **Start**.

6. Restart Systemwalker Software Configuration Manager.

Refer to "3.1 Starting Systemwalker Software Configuration Manager" for details.

4.4 Checking the Execution of Regular Discovery

Use the following method to check if regular discovery is running correctly.

Discovery for OS patches

For Windows, check if the following messages were output to the event log on the admin server at the times specified by the Task Scheduler.

For Linux, check if the following messages were output to the syslog on the admin server at the times specified by cron:

- CFMGD00006: The processing for updating patch information has started.

  If this message was not output, the Task Scheduler or cron may not be running. Check the settings for Task Scheduler or cron.

- CFMGD00005: Finished updating patch information.

  If this message was not output, discovery may have failed.

  Take the appropriate action by referring to the error messages output to the event log or syslog.

4.5 Checking the Execution of Configuration Baseline Creation

Use the following method to check if configuration baselines are being created correctly.

Configuration baselines are created according to the schedule that is registered using the procedure in "Registering a Configuration Baseline Creation Schedule" in the *Installation Guide*.

Check the "creation dates" for configuration baselines.

1. Execute the following command to display information about the configuration baselines that have been created:

[Windows]

```
%SWCMDB_INSTALL_PATH%\FJSVcmdbm\bin\snapview.exe -q num=all
```

[Linux]

```
/opt/FJSVcmdbm/bin/snapview.sh -q num=all
```

[Execution example]

[Windows]

```
%SWCMDB_INSTALL_PATH%\FJSVcmdbm\bin\snapview.exe -q num=all
Do you want to display the next? [y, n, all]
all

Snapshot Name             Create Date
snap20120103020000        2012/01/03 02:00:00
snap20111227020000        2011/12/27 02:00:00
snap20111220020000        2011/12/20 02:00:00
```

```
snap20111213020000        2011/12/13 02:00:00
snap20111206020000        2011/12/06 02:00:00
```

[Linux]

```
[root@ct04-m ~]# /opt/FJSVcmdbm/bin/snapview.sh -q num=all
Do you want to display the next? [y, n, all]
all

Snapshot Name             Create Date
snap20120705000001        2012/07/05 00:00:02
snap20120704100001        2012/07/04 10:00:01
snap20120704010002        2012/07/04 01:00:02
snap20120703010002        2012/07/03 01:00:02
```

2. Ensure that the configuration baselines have been created exactly in accordance with the registered schedule.

   Check if the "creation dates" for the configuration baselines obtained in Step 1 indicate that the configuration baselines have been created in accordance with the schedule registered using the procedure in "Registering a Configuration Baseline Creation Schedule" in the *Installation Guide*. If configuration baselines have been created as scheduled, the cause of the problem may either of the following.

   [Causes]

   - ServerView Resource Orchestrator is linked, but its service is not running.
   - The Task Scheduler or cron are not running.

   [Actions]

   - Ensure that the ServerView Resource Orchestrator service is running when the tool is linked.
   - Review the schedule registration.

4.6 Installing Updates on Systemwalker Software Configuration Manager

For stable and continuous operation of Systemwalker Software Configuration Manager, periodically check update information released by Fujitsu, and install released updates as soon as possible.

This section explains how to check update information for Systemwalker Software Configuration Manager, and how to install updates.

4.6.1 Checking Update Information

You must check for updates in the update site for each software product used by Systemwalker Software Configuration Manager listed below:

Admin server

Product name	Version
Systemwalker Software Configuration Manager	V15.2.0
Systemwalker Runbook Automation	V15.1.3
Interstage Application Server Enterprise Edition	V11.0.0
Systemwalker Operation Manager Enterprise Edition (*1)	**[Windows]** V13.6.1 **[Linux]** V13.6.0

*1: On Windows, a patch does not need to be applied if C/S (item indicating the client/server category) is C (for client-specific updates).

Linkage server

Product name	Version
Systemwalker Software Configuration Manager (Agent)	V15.2.0
Systemwalker Runbook Automation (Agent)	V15.1.3

Business server

Product name	Version
Systemwalker Software Configuration Manager (Agent)	V15.2.0
Systemwalker Runbook Automation (Agent)	V15.1.3

4.6.2 Installing Updates on the Admin Server

This section explains how to install updates on the admin server.

Point

[Linux]

Install the updates in single-user mode, and restore to multi-user mode afterwards.

The procedure for installing updates is described below:

1. Stop Systemwalker Software Configuration Manager

   Execute the following command on the admin server:

   [Windows]

   Execute the command as a user with administrator privileges.

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_stop
   ```

   [Linux]

   Execute the command as a superuser.

   ```
   /opt/FJSVcfmgm/bin/swcfmg_stop
   ```

   If Systemwalker Software Configuration Manager stops successfully, a stop completion message will be output.

   ```
   Stop processing for Systemwalker Software Configuration Manager will start.
   Stop processing for Systemwalker Software Configuration Manager has completed normally.
   ```

2. Stop ServerView Resource Orchestrator (only when linked)

   If linked to ServerView Resource Orchestrator, stop ServerView Resource Orchestrator.

   Refer to the ServerView Resource Orchestrator manual for details.

3. Install the updates

   Refer to "Applying Updates to Systemwalker Runbook Automation" in the *Systemwalker Runbook Automation Installation Guide* for details.

   Refer to the *Software Release Guide* for information on where the SystemwalkerRunbook Automation manual is stored.

4. Start ServerView Resource Orchestrator (only when linked)

   If linked to ServerView Resource Orchestrator, start ServerView Resource Orchestrator.

Refer to the ServerView Resource Orchestrator manual for details

5. Start Systemwalker Software Configuration Manager

   Execute the following command on the admin server:

   [Windows]

   Execute the command as a user with administrator privileges.

   ```
   <Systemwalker Software Configuration Manager installation directory>\SWCFMGM\bin\swcfmg_start
   ```

   [Linux]

   Execute the command as a superuser.

   ```
   /opt/FJSVcfmgm/bin/swcfmg_start
   ```

   If Systemwalker Software Configuration Manager starts successfully, a startup completion message will be output.

   ```
   Start processing for Systemwalker Software Configuration Manager will start.
   Start processing for Systemwalker Software Configuration Manager has completed normally.
   ```

4.6.3 Installing Updates on the Linkage Server

This section explains how to install updates on the linkage server:

[Windows]

The procedure for installing updates is described below:

1. Stop the file transfer infrastructure

   Use the services feature in Windows(R) to stop the file transfer infrastructure as a user with administrator privileges.

   a. Click **Control Panel** >> **Administrative Tools** >> **Services**.

   b. Select **Systemwalker File Transfer Library Control**, and then click the **Stop** button.

   c. Select **Systemwalker File Transfer Library Control(SWCFMG)** and click the **Stop** button.

2. Install the updates

   Install the updates according to the explanations for the updates to be installed.

3. Start the file transfer infrastructure

   Start the file transfer infrastructure.

   Use the services feature in Windows(R) to start the file transfer infrastructure as a user with administrator privileges.

   a. Click **Control Panel** >> **Administrative Tools** >> **Services**.

   b. Select **Systemwalker File Transfer Library Control** and click the **Start** button.

   c. Select **Systemwalker File Transfer Library Control(SWCFMG)** and click the **Start** button.

4.6.4 Installing Updates on the Business Server

This section explains how to install updates on the business server:

Point

[Linux]

Install the updates in single-user mode, and restore to multi-user mode afterwards.

[Windows]

The procedure for installing updates is described below:

1. Stop the file transfer infrastructure

   Using the Windows(R) Services function, stop the file transfer infrastructure as a user with administrator privileges:

   a. Click **Control Panel** >> **Administrative Tools** >> **Services**.

   b. Select **Systemwalker File Transfer Library Control**, and then click the **Stop** button.

   c. Select **Systemwalker File Transfer Library Control(SWCFMG)**, and then click the **Stop** button.

2. Install the updates

   Install the required updates according to the instructions.

3. Start the file transfer infrastructure

   Using the Windows(R) Services function, start the file transfer infrastructure as a user with administrator privileges:

   a. Click **Control Panel** >> **Administrative Tools** >> **Services**.

   b. Select **Systemwalker File Transfer Library Control**, and then click the **Start** button.

   c. Select **Systemwalker File Transfer Library Control(SWCFMG)**, and then click the **Start** button.

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Appendix A Job Management

The execution status of patch application, patch distribution, parameter settings, or script execution, can be checked in the following ways:

- Task management

  Use this method to check the execution status of patch application, patch distribution, parameter settings, or script execution jobs requested to Systemwalker Software Configuration Manager by a tenant administrator or a tenant user. The task management function can be used from the management console.

- Job management

  Use this method to check the execution status of all patch application, patch distribution, parameter settings, or script execution jobs being executed on Systemwalker Software Configuration Manager by an infrastructure administrator or a dual-role administrator. The job management function is accessible via commands.

Task management

In patch application, patch distribution, parameter setting or script execution, a task refers to an operation assigned to a person in charge when the status of a process (activity) changes, indicating that it requires a decision by that person. Task management enables the user to take action when a decision from that user is required, such as when an error occurs.

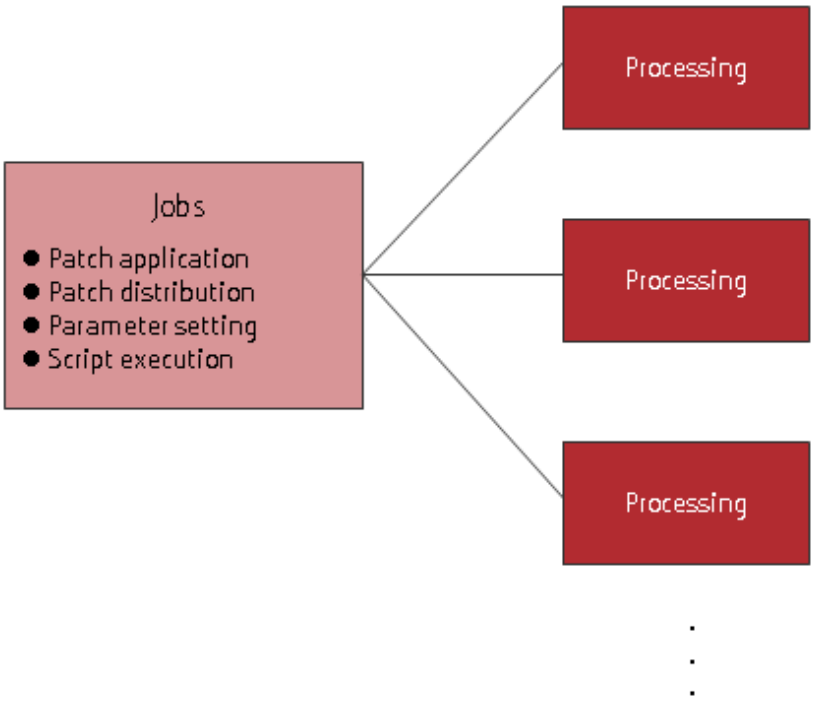
Task management can be performed from the management console (refer to "Task Management" in the *Operator's Guide* for details).

Job management

A job refers to an operation requested to Systemwalker Software Configuration Manager. Operations such as patch application, patch distribution, parameter setting, and script execution are executed as a series of jobs. Managing these operations as jobs enables visualization of the process execution status and facilitates confirmation of the progress status. If a decision from the user is required, such as when an error occurs in a job, the user can take the required action, such as retrying or canceling. Use swcfmg_job (Job Information Management command) to perform job management (refer to "swcfmg_job (Job Information Management Command)" in the *Reference Guide* for details).

A.1 Jobs

The job configuration is shown below.



Items that can be checked by jobs are listed below:

Item	Description	Checked using:
Job ID	An ID that uniquely identifies the job	- Job Information Management command with the -list option - Job Information Management command with the -get option
Job name	Name of the job. The strings below will automatically be set in the job name: - If patches are applied using the **Patch Application** wizard: Patch application request + "_"+ Job ID + "_" - If patches are distributed using the **Patch Application** wizard: Patch distribution request + "_"+ Job ID + "_" - If parameters are configured using the **Parameter Settings** wizard or swcfmg_param_startsetting (Parameter Setting command): Parameter settings request + "_"+ Job ID + "_" - If scripts are executed using the **Script Execution** wizard: Script execution request + "_"+ Job ID + "_"	- Job Information Management command with the -list option - Job Information Management command with the -get option
Job type	Type of job. The job types are shown below: - Patch application: If patches are applied using the **Patch Application** wizard - Patch distribution: If patches are distributed using the **Patch Application** wizard	- Job Information Management command with the -list option - Job Information Management command with the -get option

Item	Description	Checked using:
	- Parameter settings: If parameters are configured using the **Parameter Settings** wizard or swcfmg_param_startsetting (Parameter Setting command) - Script execution: If scripts are executed using the **Script Execution** wizard	
Status	Status of the job. The status values are shown below: - Executing: The job is executing - Complete: The job has ended normally - Selecting (error): The job process has ended in an error and is waiting for the user to select an action - Complete (error): An unexpected error has occurred during the job process, and the job has ended in error - Waiting: The job is waiting for the scheduled time - Canceled: The job has been canceled by request	- Job Information Management command with the -list option - Job Information Management command with the -get option
Administrator	Administrator of the job. The person making the request becomes the administrator.	- Job Information Management command with the -list option - Job Information Management command with the -get option
Tenant	Tenant that the administrator belongs to.	- Job Information Management command with the -list option - Job Information Management command with the -get option
Start datetime	Date and time the job was started.	- Job Information Management command with the -list option - Job Information Management command with the -get option
End datetime	Date and time the job ended.	- Job Information Management command with the -list option - Job Information Management command with the -get option
Target	Execution target of the job. For example, the patch application target refers to the server(s) that will have patches applied.	- Job Information Management command with the -list option - Job Information Management command with the -get option

Item	Description	Checked using:
Process details	Execution content of the job.	- Job Information Management command with the -get option
Process results	Execution results of the job.	- Job Information Management command with the -get option

A.2 Processes

Processes executed by jobs are listed below.

Patch Application wizard (operating system patches)

Process name	Process type	Description	Settings information	Value
Acceptance	Acceptance	Always executed.	None	None
Schedule standby	Schedule standby	Executed if **Specific date and time** was specified at **Application method** >> **Schedule**.	Schedule datetime	Value specified in **Specific date and time** at **Application method** >> **Schedule**
Server operation check	Server operation check	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
Pre-execution script	Script execution	Executed if a pre-execution script is registered at **Application method** >> **Script registration**.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Script information	Script registered at **Application method** >> **Script registration**
Patch distribution	Patch distribution	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Patch information	Patch(es) specified in the **Fujitsu middleware patch list** window or at **Select patches**
Post-execution script	Script execution	Executed if a post-execution script is registered at **Application method** >> **Script registration**.	Target server(s)	Server(s) specified in the **Server list** or at **Select servers**
			Script information	Script registered at **Application method** >> **Script registration**
Restart operating system	Restart operating system	Executed if **Yes** was selected at **Application method** >> **Reboot after application**.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**

Patch Application wizard (Fujitsu middleware)

Process name	Process type	Description	Settings information	Value
Acceptance	Acceptance	Always executed.	None	None
Schedule standby	Schedule standby	Executed if **Specific date and time** was specified at **Application method** >> **Schedule**.	Schedule datetime	Value specified in **Specific date and time** at **Application method** >> **Schedule**
Server operation check	Server operation check	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
Pre-execution script	Script execution	Executed if a pre-execution script is registered at **Application method** >> **Script registration**.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Script information	Script registered at **Application method** >> **Script registration**
Patch distribution	Patch distribution	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Patch information	Patch(es) specified in the **Fujitsu middleware patch list** window or at **Select patches**
Post-execution script	Script execution	Executed if a post-execution script is registered at **Application method** >> **Script registration**.	Target server(s)	Server(s) specified in the **Server list** or at **Select servers**
			Script information	Script registered at **Application method** >> **Script registration**
Restart operating system	Restart operating system	Executed if **Yes** was selected at **Application method** >> **Reboot after application**.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**

Parameter Settings wizard and the Parameter Setting command

Process name	Process type	Description	Settings information	Value
Acceptance	Acceptance	Always executed.	None	None
Schedule standby	Schedule standby	Executed if **Specific date and time** was specified at **Execution method** >> **Schedule**.	Schedule datetime	Value specified in **Specific date and time** at **Execution method** >> **Schedule**
Server operation check	Server operation check	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
Pre-execution script	Script execution	Executed if a pre-execution script is registered at **Execution**	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Script information	Script registered at **Enter execution method**

Process name	Process type	Description	Settings information	Value
		method >> **Script registration**.		
Parameter settings	Parameter settings	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Software information	Software information specified in the **Server Details** window or at **Software selection**
			Parameter settings information	Parameter settings information specified in **Parameter Settings** or at **Edit Parameter Information**
Post-execution script	Script execution	Executed if a post-execution script is registered at **Execution method** >> **Script registration**.	Target server(s)	Server(s) specified in the **Server list** or at **Select servers**
			Script information	Script registered at **Execution method**
Restart operating system	Restart operating system	Executed if **Yes** was selected at **Execution method** >> **Restart after execution**.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**

Script Execution wizard

Process name	Process type	Description	Settings information	Value
Acceptance	Acceptance	Always executed.	None	None
Schedule standby	Schedule standby	Executed if **Specific date and time** was specified at **Execution method** >> **Schedule**.	Schedule datetime	Value specified in **Specific date and time** at **Execution method** >> **Schedule**
Server operation check	Server operation check	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
Script execution	Script execution	Always executed.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**
			Script information	Script registered at **Enter execution method**
Restart operating system	Restart operating system	Executed if **Yes** was selected at **Execution method** >> **Restart after execution**.	Target server(s)	Server(s) specified in the **Server list** window or at **Select servers**

A.3 Action

If a decision is required from a user, such as when an error occurs during execution of a job process, the prescribed action can be executed for the relevant process or job.

Actions can be executed using the Job Information Management command (refer to "swcfmg_job (Job Information Management Command)" in the *Reference Guide* for details). Actions that can be executed for each process are listed below:

Process type	Action	Description
Schedule standby	Cancel	Cancels the schedule and the job. Can be performed during execution of this process.
Server operation check	Retry	Reexecutes this process. Can be performed if an error occurs during this process.
	Cancel	Cancels the job. Can be performed if an error occurs during this process.
Script execution	Retry	Reexecutes this process. Can be performed if an error occurs during this process.
	Cancel	Cancels the job. Can be performed if an error occurs during this process.
	Continue	Moves to the next process. Can be performed if an error occurs during this process.
Patch application	Retry	Reexecutes this process. Can be performed if an error occurs during this process.
	Cancel	Cancels the job. Can be performed if an error occurs during this process.
	Continue	Moves to the next process. Can be performed if an error occurs during this process.
Patch distribution	Retry	Reexecutes this process. Can be performed if an error occurs during this process.
	Cancel	Cancels the job. Can be performed if an error occurs during this process.
	Continue	Moves to the next process. Can be performed if an error occurs during this process.
Parameter settings	Retry all	Reexecutes this process. Sets parameters for all software in which settings can be configured. Can be performed if an error occurs during this process.
	Retry	Reexecutes this process. Sets parameters for software in which an error occurred during the parameter setting process, or for software in which parameters have not yet been configured. Can be performed if an error occurs during this process.
	Cancel	Cancels the job. Can be performed if an error occurs during this process.

Process type	Action	Description
	Continue	Moves to the next process. Can be performed if an error occurs during this process.
Restart operating system	Retry	Reexecutes this process. Can be performed if an error occurs during this process.
	Cancel	Cancels the job. Can be performed if an error occurs during this process.
	Continue	Moves to the next process. Can be performed if an error occurs during this process.