FUJITSU

# FUJITSU Software
# Systemwalker Operation Manager

# Quick Start Guide

UNIX/Windows(R)

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# Preface

## Purpose of This Document

This document is an introduction to Systemwalker Operation Manager and provides basic information. It also provides detailed explanation of the various procedures from installation through to registration and monitoring of jobs so that even a beginner can perform these operations. The purpose of this document is to enable the reader to understand the overall flow by actually operating Systemwalker Operation Manager while referring to this document.

## Intended Readers

This document is intended for first-time users of Systemwalker Operation Manager, as well as those who want to quickly understand the basic operations, from registering Systemwalker Operation Manager jobs through to execution and monitoring.

This document assumes you are familiar with how to work with operating system(s) and GUIs.

## Abbreviations and Generic Terms Used

- The term "Windows Server 2012 R2" is used to refer to all of the following products:
  - Microsoft(R) Windows Server(R) 2012 R2 Foundation (x64)
  - Microsoft(R) Windows Server(R) 2012 R2 Standard (x64)
  - Microsoft(R) Windows Server(R) 2012 R2 Datacenter (x64)
- The term "Windows Server 2012" is used to refer to all of the following products:
  - Microsoft(R) Windows Server(R) 2012 Foundation (x64)
  - Microsoft(R) Windows Server(R) 2012 Standard (x64)
  - Microsoft(R) Windows Server(R) 2012 Datacenter (x64)
  - Microsoft(R) Windows Server(R) 2012 R2 Foundation (x64)
  - Microsoft(R) Windows Server(R) 2012 R2 Standard (x64)
  - Microsoft(R) Windows Server(R) 2012 R2 Datacenter (x64)
- The term "Windows Server 2008 R2" is used to refer to all of the following products:
  - Microsoft(R) Windows Server(R) 2008 R2 Foundation
  - Microsoft(R) Windows Server(R) 2008 R2 Standard
  - Microsoft(R) Windows Server(R) 2008 R2 Enterprise
  - Microsoft(R) Windows Server(R) 2008 R2 Datacenter
- The term "Windows Server 2008 Foundation" is used to refer to all of the following products:
  - Microsoft(R) Windows Server(R) 2008 R2 Foundation
  - Microsoft(R) Windows Server(R) 2008 Foundation
- The term "Server Core" is used to refer to all of the following products:
  - Microsoft(R) Windows Server(R) 2012 Standard Server Core
  - Microsoft(R) Windows Server(R) 2012 Datacenter Server Core
  - Microsoft(R) Windows Server(R) 2008 Standard Server Core
  - Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM) Server Core
  - Microsoft(R) Windows Server(R) 2008 Enterprise Server Core

    - Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM) Server Core
    - Microsoft(R) Windows Server(R) 2008 Datacenter Server Core
    - Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM) Server Core
- The term "Windows Server 2008 STD" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2008 Standard (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM)
- The term "Windows Server 2008 DTC" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2008 Datacenter (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM)
- The term "Windows Server 2008 EE" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2008 Enterprise (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM)
- The term "Windows Server 2008" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2008 Standard (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Enterprise (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Datacenter (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Foundation (x64)
    - Microsoft(R) Windows Server(R) 2008 Standard without Hyper-V(TM) (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Enterprise without Hyper-V(TM) (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 Datacenter without Hyper-V(TM) (x86)/(x64)
    - Microsoft(R) Windows Server(R) 2008 R2 Foundation (x64)
    - Microsoft(R) Windows Server(R) 2008 R2 Standard (x64)
    - Microsoft(R) Windows Server(R) 2008 R2 Enterprise (x64)
    - Microsoft(R) Windows Server(R) 2008 R2 Datacenter (x64)
- The term "Windows Server 2003 STD" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2003 R2, Standard x64 Edition
    - Microsoft(R) Windows Server(R) 2003 R2, Standard Edition
    - Microsoft(R) Windows Server(R) 2003, Standard x64 Edition
    - Microsoft(R) Windows Server(R) 2003, Standard Edition
- The term "Windows Server 2003 DTC" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2003 R2, Datacenter x64 Edition
    - Microsoft(R) Windows Server(R) 2003 R2, Datacenter Edition
    - Microsoft(R) Windows Server(R) 2003, Datacenter x64 Edition
    - Microsoft(R) Windows Server(R) 2003, Datacenter Edition for Itanium-based Systems
    - Microsoft(R) Windows Server(R) 2003, Datacenter Edition
- The term "Windows Server 2003 EE" is used to refer to all of the following products:
    - Microsoft(R) Windows Server(R) 2003 R2, Enterprise x64 Edition
    - Microsoft(R) Windows Server(R) 2003 R2, Enterprise Edition

    - Microsoft(R) Windows Server(R) 2003, Enterprise x64 Edition
    - Microsoft(R) Windows Server(R) 2003, Enterprise Edition for Itanium-based Systems
    - Microsoft(R) Windows Server(R) 2003, Enterprise Edition
- The term "Windows(R) 2000" is used to refer to all of the following products:
    - Microsoft(R) Windows(R) 2000 Professional
    - Microsoft(R) Windows(R) 2000 Server
    - Microsoft(R) Windows(R) 2000 Advanced Server
    - Microsoft(R) Windows(R) 2000 Datacenter Server
- The term "Windows NT(R)" is used to refer to all of the following products:
    - Microsoft(R) Windows NT(R) Server network operating system Version 4.0
    - Microsoft(R) Windows NT(R) Workstation operating system Version 4.0
- The term "Windows(R) 8.1" is used to refer to all of the following products:
    - Windows(R) 8.1 (x86)
    - Windows(R) 8.1 Pro (x86)
    - Windows(R) 8.1 Enterprise (x86)
    - Windows(R) 8.1 (x64)
    - Windows(R) 8.1 Pro (x64)
    - Windows(R) 8.1 Enterprise (x64)
- The term "Windows(R) 8" is used to refer to all of the following products:
    - Windows(R) 8 (x86)
    - Windows(R) 8 Pro (x86)
    - Windows(R) 8 Enterprise (x86)
    - Windows(R) 8 (x64)
    - Windows(R) 8 Pro (x64)
    - Windows(R) 8 Enterprise (x64)
    - Windows(R) 8.1 (x86)
    - Windows(R) 8.1 Pro (x86)
    - Windows(R) 8.1 Enterprise (x86)
    - Windows(R) 8.1 (x64)
    - Windows(R) 8.1 Pro (x64)
    - Windows(R) 8.1 Enterprise (x64)
- The term "Windows(R) 7" is used to refer to all of the following products:
    - Windows(R) 7 Home Premium (x86)
    - Windows(R) 7 Professional (x86)
    - Windows(R) 7 Enterprise (x86)
    - Windows(R) 7 Ultimate (x86)
    - Windows(R) 7 Home Premium (x64)
    - Windows(R) 7 Professional (x64)

    - Windows(R) 7 Enterprise (x64)
    - Windows(R) 7 Ultimate (x64)
- The term "Windows Vista(R)" is used to refer to all of the following products:
    - Windows Vista(R) Home Basic (x86)
    - Windows Vista(R) Home Premium (x86)
    - Windows Vista(R) Business (x86)
    - Windows Vista(R) Enterprise (x86)
    - Windows Vista(R) Ultimate (x86)
    - Windows Vista(R) Home Basic (x64)
    - Windows Vista(R) Home Premium (x64)
    - Windows Vista(R) Business (x64)
    - Windows Vista(R) Enterprise (x64)
    - Windows Vista(R) Ultimate (x64)
- The term "Windows(R) XP" is used to refer to all of the following products:
    - Microsoft(R) Windows(R) XP Professional x64 Edition
    - Microsoft(R) Windows(R) XP Professional
    - Microsoft(R) Windows(R) XP Home Edition
- The term "Windows(R) Me" is used to refer to Microsoft(R) Windows(R) Millennium Edition.
- The term "Windows(R) 98" is used to refer to Microsoft(R) Windows(R) 98 operating system.
- The following product is abbreviated as "Windows(R) 2000 Server".
    - Microsoft(R) Windows(R) 2000 Server
- Windows Internet Explorer(R) is abbreviated as "Internet Explorer".
- Versions of Systemwalker Operation Manager that run on the following operating systems are referred to as "Windows versions of Systemwalker Operation Manager" or simply "Windows versions":
    - Windows
    - Windows that supports 64-bit architecture other than Itanium
- Articles specific to the version of Systemwalker Operation Manager that runs on Windows that supports 32-bit architecture are referred to as "Windows x86 version".
- Articles specific to the version of Systemwalker Operation Manager that runs on Windows that supports Itanium are referred to as "Windows for Itanium version".
- Articles specific to the version of Systemwalker Operation Manager that runs on Windows that supports 64-bit architecture other than Itanium are referred to as "Windows x64 version".
- Windows(R) 2000, Windows Server 2003 STD, Windows Server 2003 DTC, Windows Server 2003 EE, Windows Server 2008, Windows Server 2008 EE, Windows Server 2008 DTC, Windows Server 2008 STD, Windows Server 2008 Foundation, Windows Server 2008 R2, Server Core, Windows Server 2012, and Windows Server 2012 R2 may be abbreviated as "Windows servers".
- Oracle Solaris may be referred to as "Solaris", "Solaris Operating System", or "Solaris OS".
- Versions of Systemwalker Operation Manager that run on Solaris are referred to as "Solaris versions of Systemwalker Operation Manager" or "Solaris versions".
- Versions of Systemwalker Operation Manager that run on UXP/DS are referred to as "DS versions of Systemwalker Operation Manager" or "DS versions".

- Articles specific to the version of Systemwalker Operation Manager that runs on 32-bit versions of Solaris are referred to as "Solaris 32-bit version".
- Articles specific to the version of Systemwalker Operation Manager that runs on 64-bit versions of Solaris are referred to as "Solaris 64-bit version".
- Versions of Systemwalker Operation Manager that run on HP-UX are referred to as "HP-UX versions of Systemwalker Operation Manager" or "HP-UX versions".
- Versions of Systemwalker Operation Manager that run on AIX are referred to as "AIX versions of Systemwalker Operation Manager" or "AIX versions".
- Versions of Systemwalker Operation Manager that run on the following operating systems are referred to as "Linux versions of Systemwalker Operation Manager" or "Linux versions".
  - Linux
  - Linux that supports 64-bit architecture other than Itanium
- Articles specific to the version of Systemwalker Operation Manager that runs on Linux that supports 32-bit architecture are referred to as "Linux x86 version".
- Articles specific to the version of Systemwalker Operation Manager that runs on Linux that supports Itanium are referred to as "Linux for Itanium version".
- Articles specific to the version of Systemwalker Operation Manager that runs on Linux that supports 64-bit architecture other than Itanium are referred to as "Linux x64 version".
- Solaris, DS, HP-UX, AIX, Linux, and Linux for Itanium versions of Systemwalker Operation Manager are referred to collectively as "UNIX versions of Systemwalker Operation Manager" or simply "UNIX versions".
- Solaris, HP-UX, AIX, Linux, and UXP/DS may be referred to as "UNIX servers".
- Systemwalker Operation Manager Standard Edition may be abbreviated as "SE".
- Systemwalker Operation Manager Enterprise Edition may be abbreviated as "EE".
- Standard Edition may be abbreviated as "SE", and Enterprise Edition may be abbreviated as "EE".
- BrightStor(R) ARCserve(R) Backup for Windows is abbreviated as "ARCserve".
- Microsoft(R)-Mail that is provided as a standard feature with Windows NT(R) is abbreviated as "MS-Mail".

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May 2015

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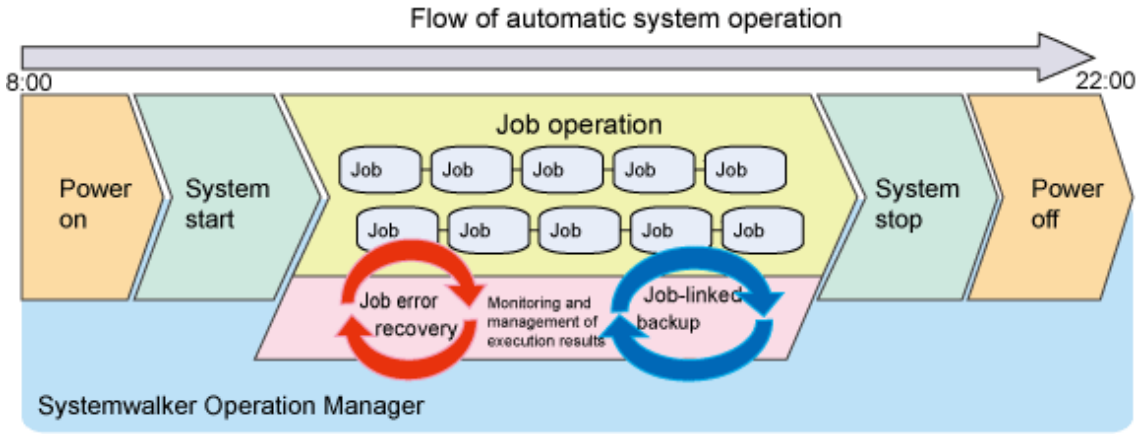
# Chapter 1 Overview

This chapter provides an overview of Systemwalker Operation Manager.

## 1.1 What is Systemwalker Operation Manager?

Systemwalker Operation Manager is an operation management product that provides total support for system operations, including system power on and power off, automatic job operations in accordance with a schedule, job monitoring, and user operations. It reduces the workload of system operations on administrators.

Among the functions that Systemwalker Operation Manager provides are: advanced job management functions that enable reliable execution of job patterns in accordance with a detailed schedule definition, job monitoring, and job performance management. Jobs handled by Systemwalker Operation Manager include routine jobs that are performed every day, periodic jobs that are required weekly or monthly, and jobs that receive results from particular jobs and process the data.




The basic unit of work handled by Systemwalker Operation Manager is referred to as a "job".

This document explains how to install, start, and stop Systemwalker Operation Manager, as well as hot to define and monitor jobs, providing detailed procedures based on actual examples. The aim of this document is to enable the reader to understand the flow of tasks required for defining and monitoring jobs.

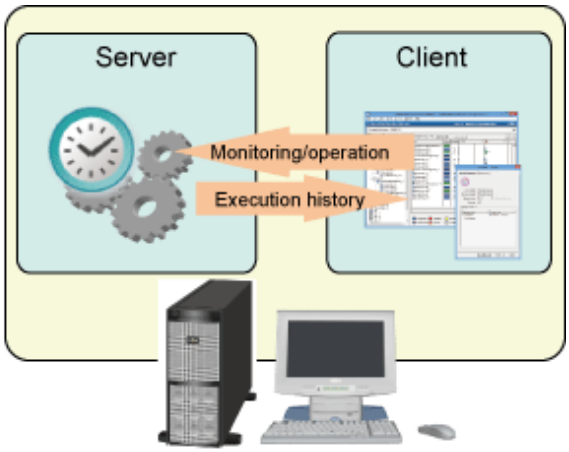
## 1.2 Overview of an Operation Configuration

Systemwalker Operation Manager consists of server functions and client functions. The server functions automatically operate jobs, and the client functions connect to the server and provide a user interface that enables definition, monitoring, and operation.

A computer on which the Systemwalker Operation Manager server functions are installed is referred to as the "Systemwalker Operation Manager server", or simply a "server". A computer on which the client functions are installed is referred to as the "Systemwalker Operation Manager client", or simply a "client".

Systemwalker Operation Manager supports various operation configurations.

This document explains the most basic configuration possible, where both the server functions and client functions are installed on the same computer.




Server: Systemwalker Operation Manager server
Client: Systemwalker Operation Manager client

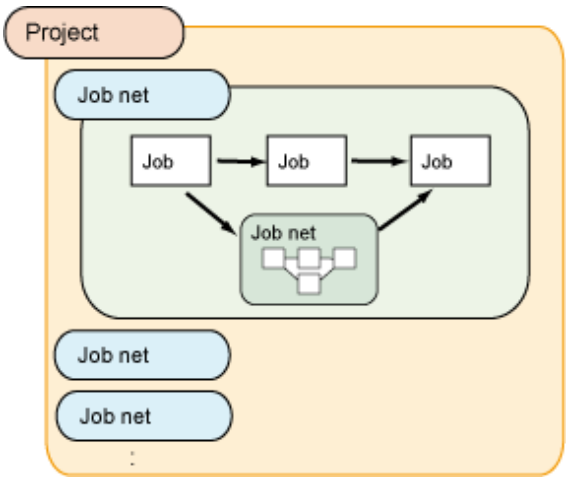
# Chapter 2 Basic Knowledge

This chapter explains the key concepts that you will need to be familiar with when using Systemwalker Operation Manager.

## 2.1 Handling Work Using Systemwalker Operation Manager

Systemwalker Operation Manager classifies a business across projects, job nets, and jobs.

The relationship between projects, job nets, and jobs is shown below:

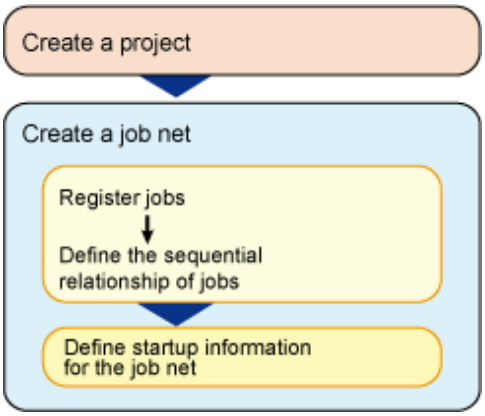



A project is a collection of different work units, and contains one or more job nets. It is the smallest unit for specifying job monitoring, making it easier to manage tasks when grouped according to type. Also, you can set access rights for projects.

A job net is a group of jobs for which an execution sequence is defined. Normally, you will seldom use just a single program when performing processing in a system. Instead, you will use a combination of several programs. Each program is called a job, and a collection of jobs is called a job net.

### Flow of job registration

Use a flow similar to the one below to register and schedule jobs:

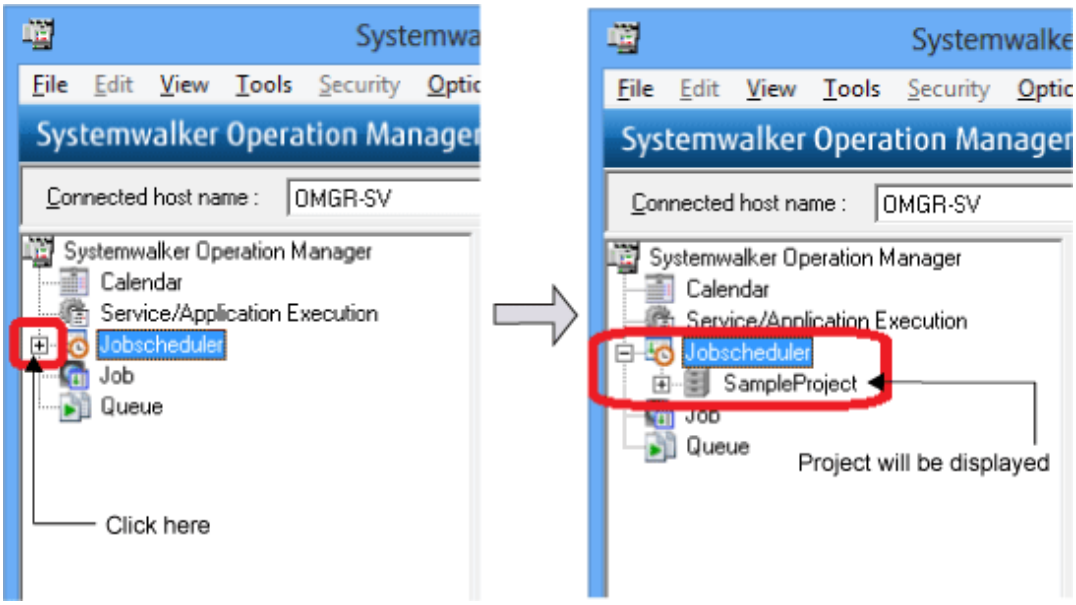


### Flow of work units

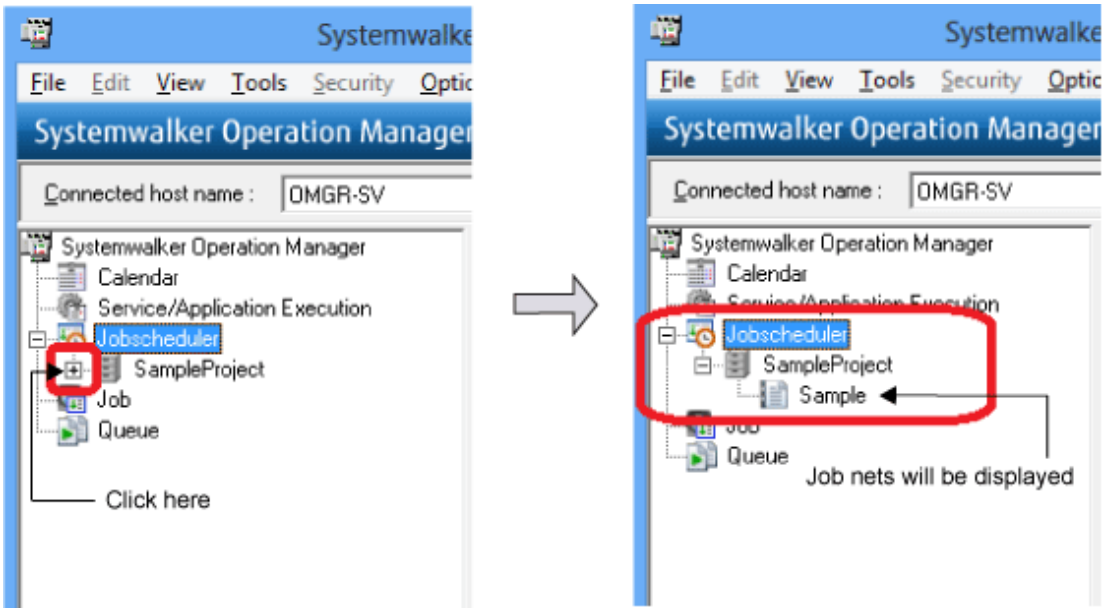
The **Job Selection** window on the client displays various functions in a tree under **Systemwalker Operation Manager**. If the function (job) selected on the client has other branches (levels) below it, a "+" mark is displayed next to it.

The method to expand a tree structure, using the Jobscheduler function as an example, is explained below.

The relationship between a project and its component job nets is represented using a tree structure. Expanding **Jobscheduler** displays its registered projects.




Expanding a project displays its registered job nets.



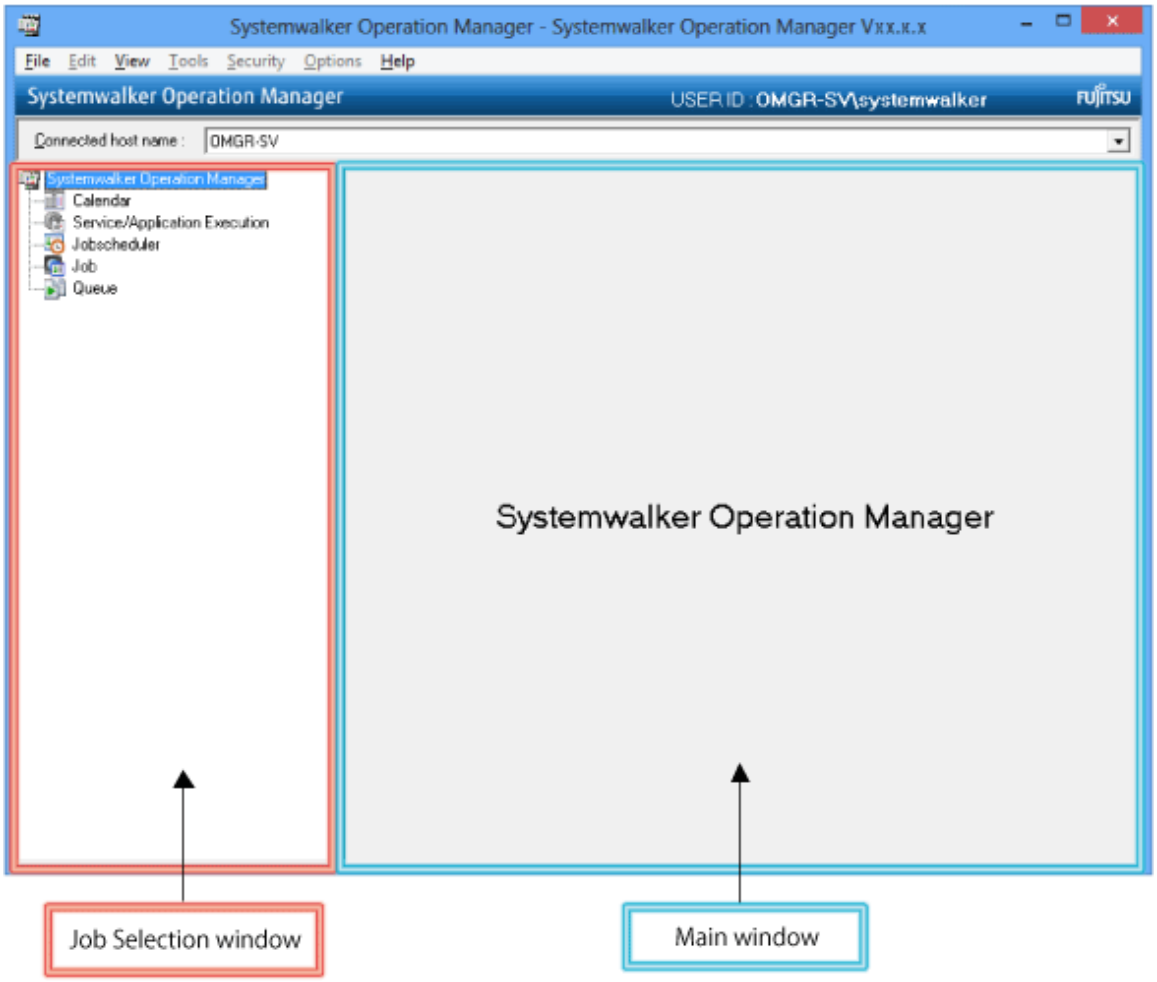

# 2.2 Overview of Windows

This section lists the windows used to create and monitor job nets.

## 2.2.1 Windows Displayed after Login

When you log in, the **Systemwalker Operation Manager** window is displayed.

This window is divided into the **Job Selection** window and the "main window". Details of the job selected in the **Job Selection** window are displayed in the main window.




## 2.2.2 Windows Used for Creating Job Nets

This section list the window used for creating a job net.

### New Job Net window

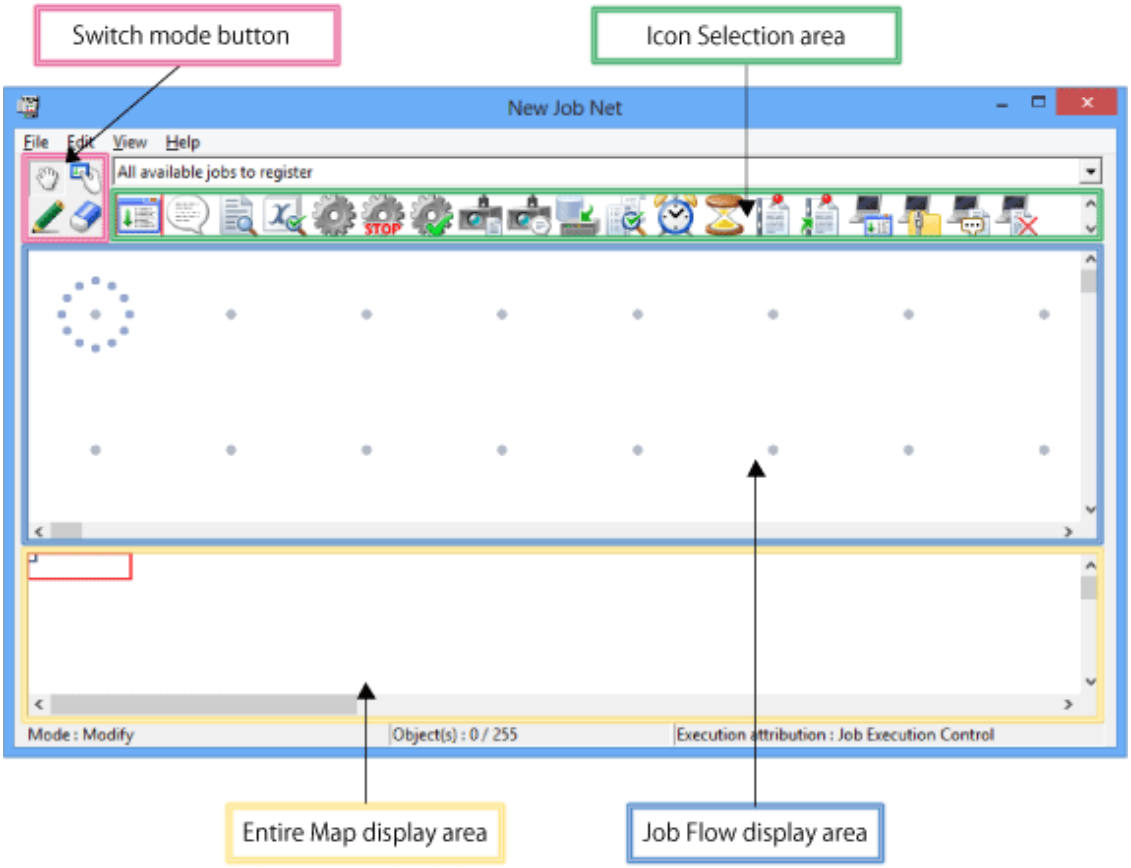
The New Job Net window can be opened in one of following ways in the **Job Selection** window of the **Systemwalker Operation Manager** window:

- Select a project, and then select **File** >> **New** >> **Job Net** >> **Job Execution Control**.
- Right-click a project, and then select **New** >> **Job Net** >> **Job Execution Control**.

The **New Job Net** window will be displayed.

This window is split into a **Switch mode** button, icon selection area, job flow display area, and the entire map display area.

The job flow indicates the sequential relationship of the jobs that constitute a job net. You can edit jobs and job nets from the job flow area.



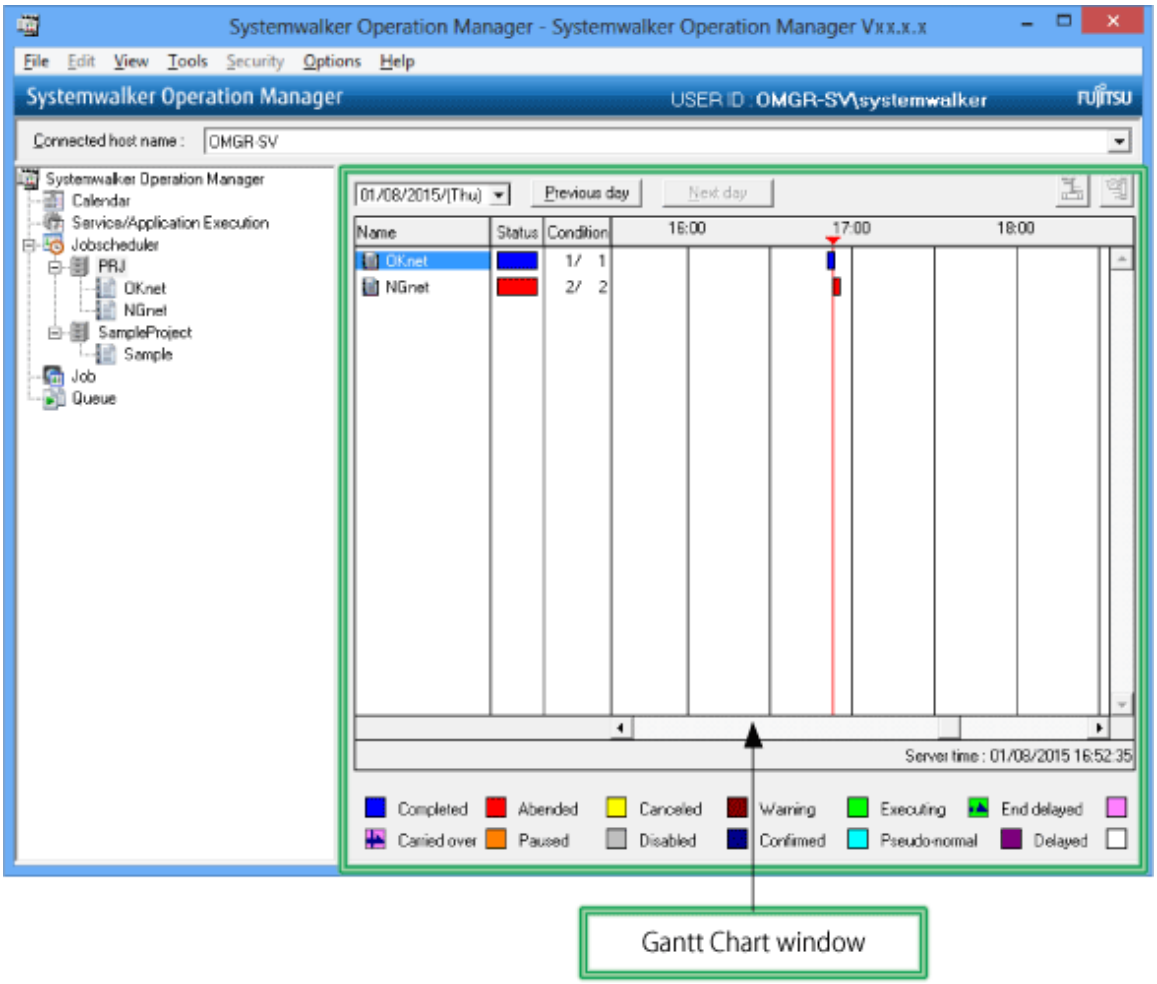

## 2.2.3 Windows Used for Monitoring Job Nets

This section explains the windows used to monitor job nets.

### Gantt Chart window

Selecting **Jobscheduler** or a project in the **Job Selection** window of the **Systemwalker Operation Manager** window display the **Gantt Chart** window on the right-hand side.

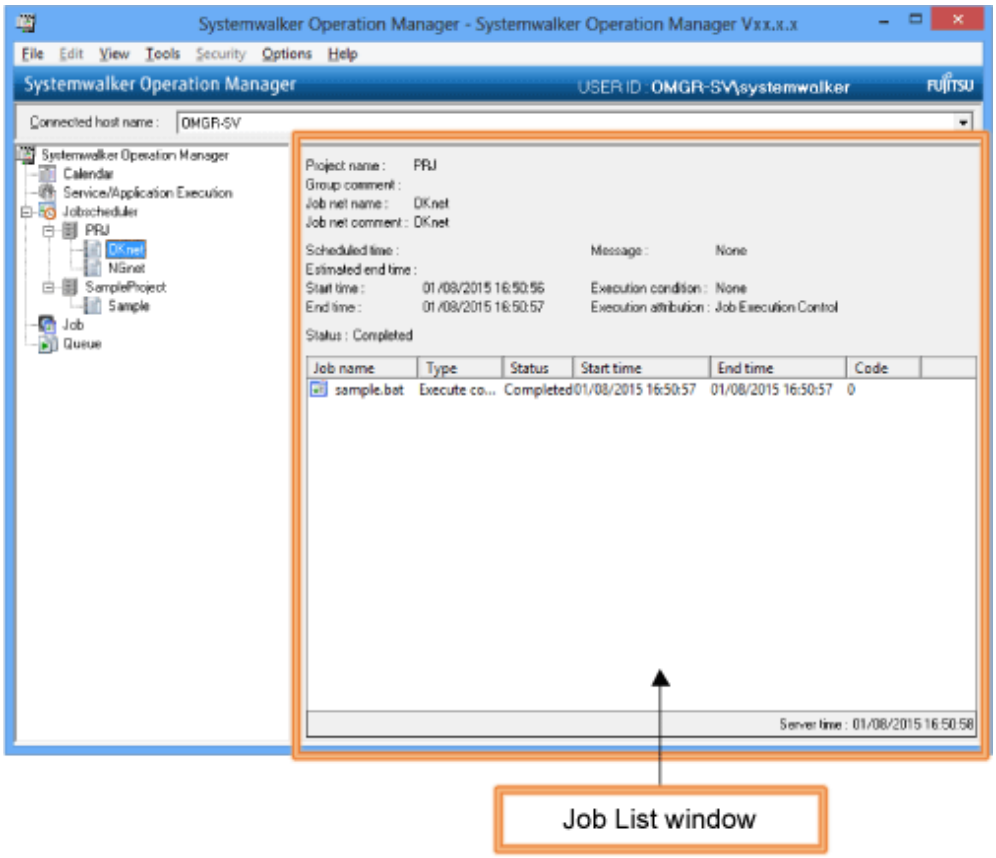
The window displays the status of the system or project job nets that will be executed on the current day, and their execution schedule for the current day.




## Job List window

Selecting a job net in the **Job Selection** window of the **Systemwalker Operation Manager** window displays the **Job List** window on the right-hand side.

The window displays information about the job net and its registered jobs.




# 2.3 Patterns for Creating Job Nets

Systemwalker Operation Manager displays the execution sequence of job nets and jobs as a job flow, representing jobs with easily identifiable icons. To create a job net, add job icons (representing the jobs to be run) and their execution sequence.

### Typical job icons

The table below shows some types of job icons commonly used for registering jobs:

| Job icon | Description | Purpose |
|---|---|---|
| | Execute command | Runs executable files that process jobs, such as batch files, shell scripts, executable programs, and commands. |
| | Send message | Generates a message event. |
| | Job net | Executes a child job net. |

### Basic patterns for job flows

During job net creation, you can specify various execution patterns for its jobs. Understanding how to combine these patterns will enable you to implement complex job net processing. Typical patterns are explained below. The text displayed below each job icon is specified by the user.

#### Flow task

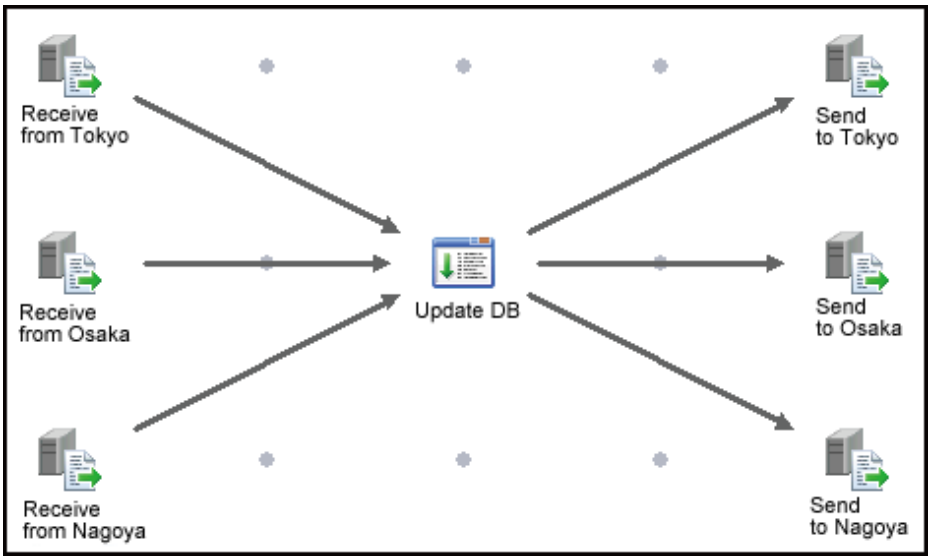
This is the most basic type of job net. Use this type of job net to execute multiple jobs in sequence.

An example is shown below:

### Consolidate-and-branch pattern

Use this type when data is collected from different locations and processed in a single location, and then the results are sent back to different locations.

In the following example, the job net receives all the sales data from three servers (Tokyo, Osaka, and Nagoya), and then updates the database. The job net then sends the updated data back to each server.

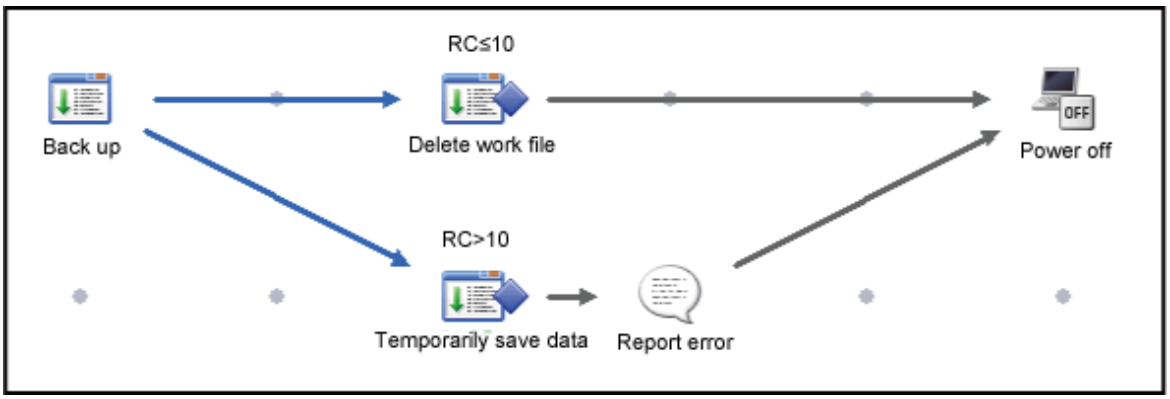



### Conditional branching

You can use the completion code of one job to change the program to be processed next. Setting branching conditions makes it possible to perform different processing.

In the following example, a backup task is performed first, and then if the completion code (RC) is no more than 10, the work file is deleted and power is turned off. If the completion code (RC) is more than 10, the data is saved temporarily, an error notification is sent, and then power is turned off.

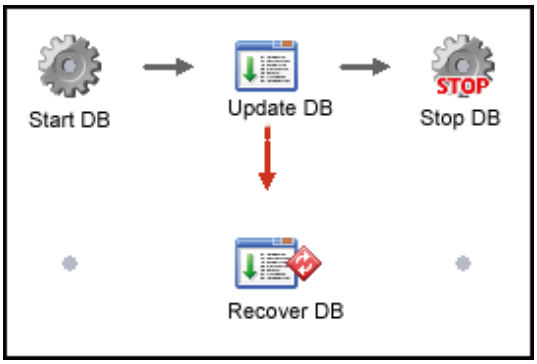
This method is useful for performing different tasks that depend on the execution results of the preceding job.



Recovery job

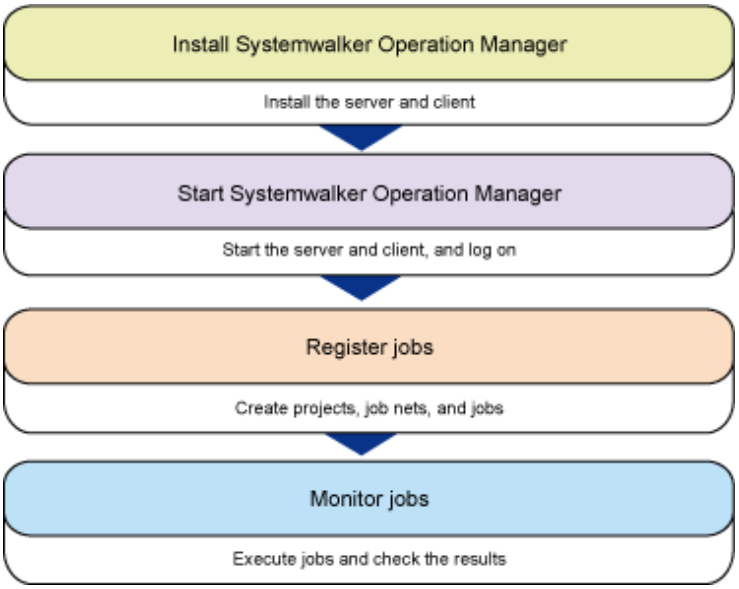
A "recovery job" is a job that is started when another job terminates abnormally, such as when an error occurs midway through an operation. If the causes of errors can be identified to a certain extent, and the procedure for responding to these errors is also determined, recovery jobs make it possible to respond to errors automatically..

In the following example, if an error occurs with the task of updating the sales database, the "Recover DB" recovery job will start a program for recovering the database.




## 2.4 Workflow

The following diagram shows the workflow for installing and starting Systemwalker Operation Manager and then registering and monitoring jobs.




The detailed procedures are explained in later chapters in this document.

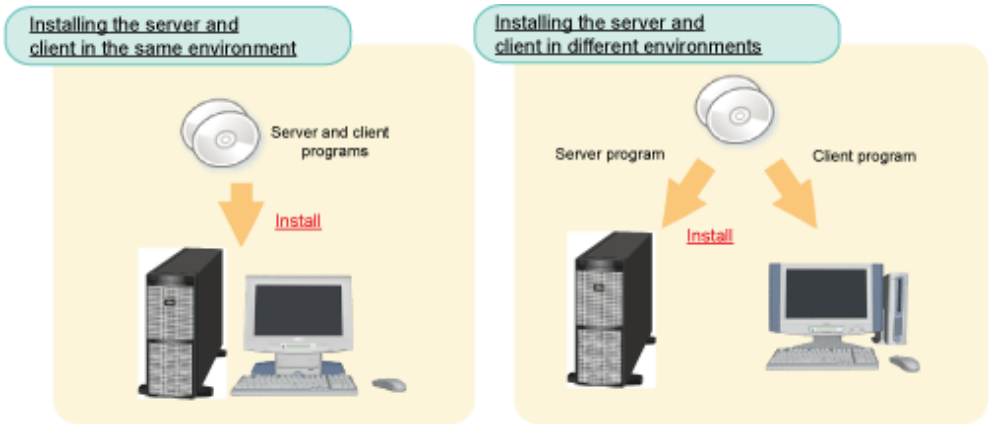
# Chapter 3 Installation

This chapter explains how to install Systemwalker Operation Manager. It explains how to install both the server and client to a Windows operating system.

An example of installing the Systemwalker Operation Manager server to a UNIX operating system and the client to a Windows operating system is explained in Appendix A.

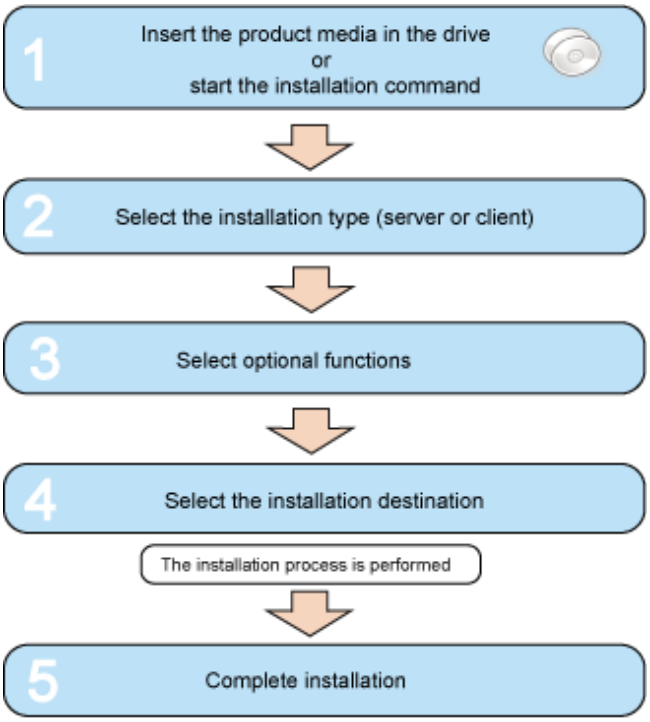
## 3.1 Overview of Installation

To use Systemwalker Operation Manager, you must install the server and client.




After you have determined which computer you will install the server and client on, prepare the Systemwalker Operation Manager product media and install them. The procedure explained in this document assumes that the server and client are being installed to the same environment.

The flow for installation is as shown below.




## 3.2 Installation Procedure

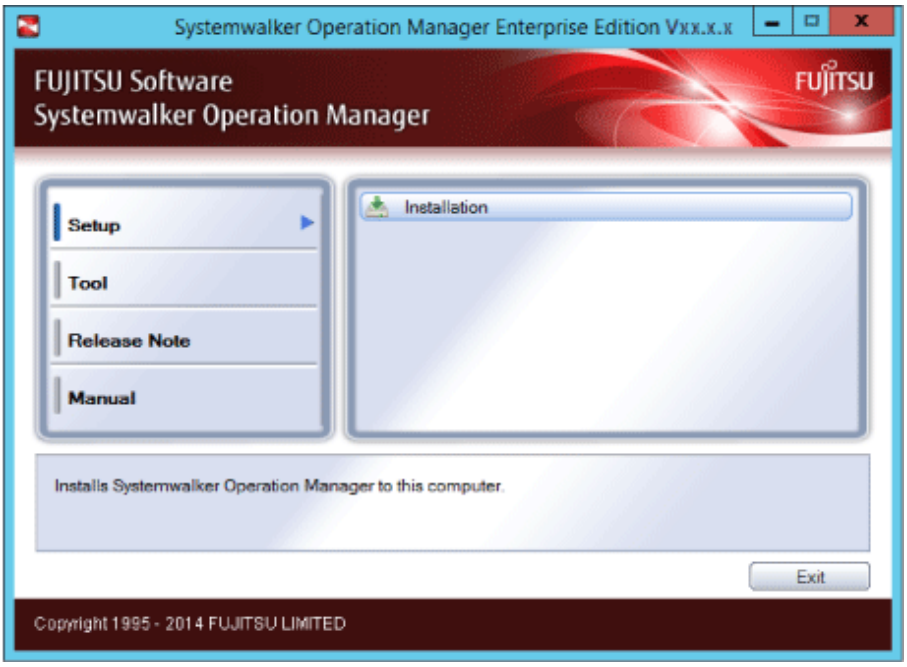
The flow for installation to a Windows operating system is the same for both the server and client.

### Procedure

Log on to the computer, where you want to install Systemwalker Operation Manager, as a user belonging to the local Administrators group. If the installation environment is a domain controller, log on as a user belonging to the built-in local Administrators group.

### 1. Insert the Systemwalker Operation Manager product media into the drive

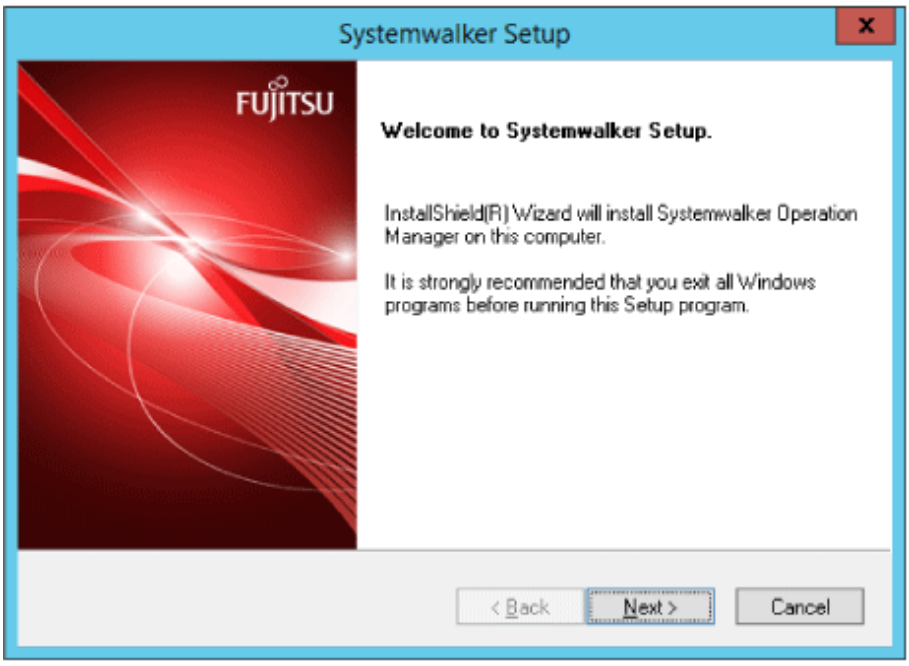
The installer starts and the following menu window is displayed. The description provided here uses the product media for the Windows x86 version as an example.



If the installer does not start automatically, execute the following installation command:

```
<drive>\swsetup.exe
```

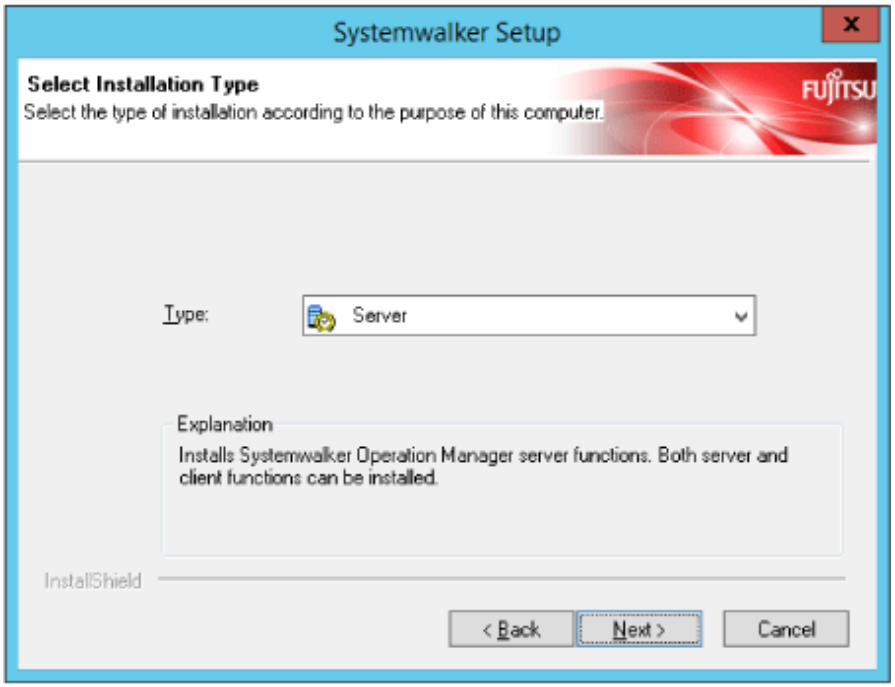
Click **Installation** to display the **Welcome to Systemwalker Setup** window.




Click **Next**.

## 2. Select "Server" or "Client" as the installation type

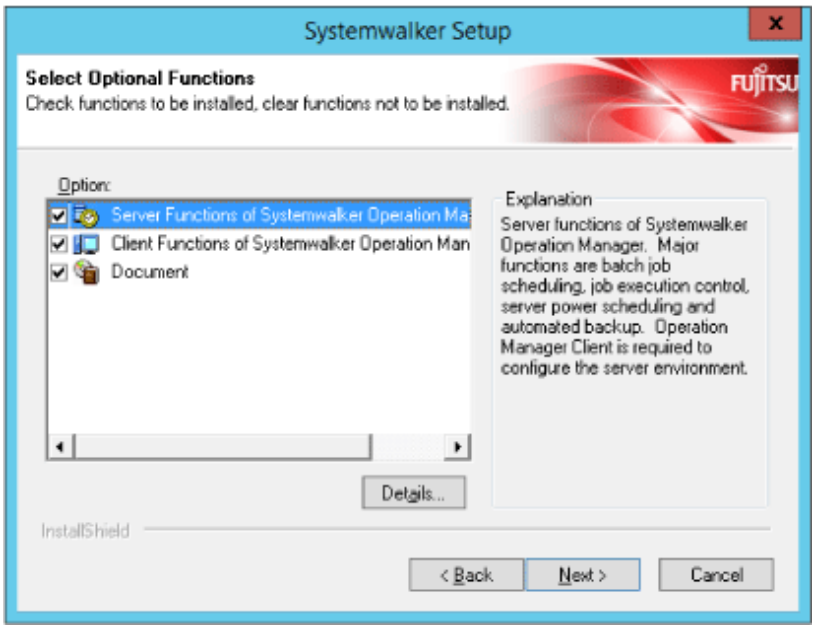
Select **Server**. Selecting **Server** installs the server and client functions.



Click **Next**.

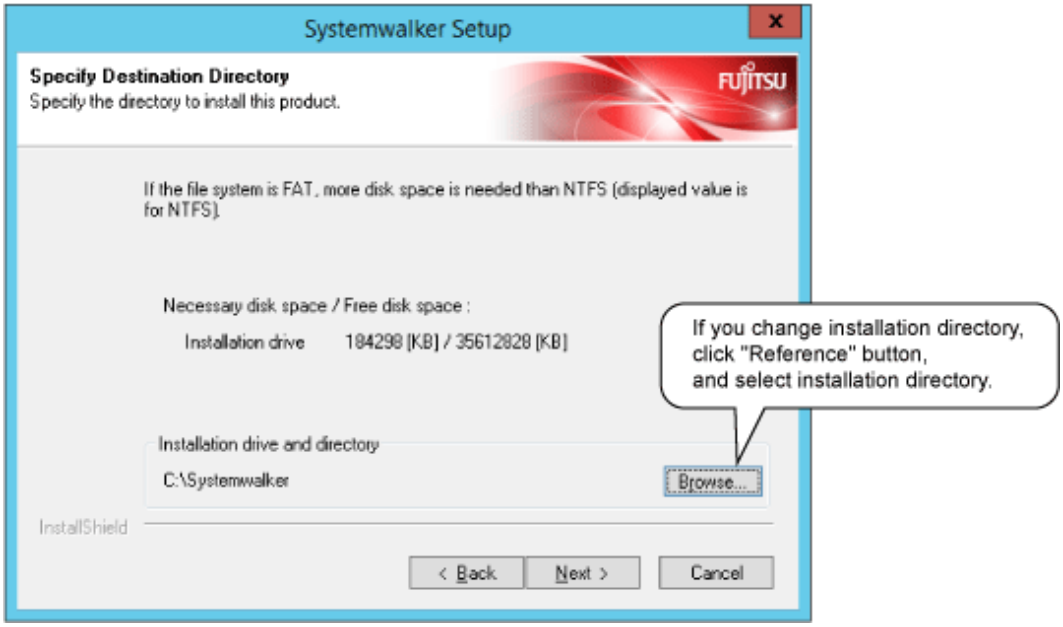
### 3. Select optional functions

If installing the server and client to the same computer, ensure that the default values are selected (**Server Functions of Systemwalker Operation Manager** and **Document**) and then also select **Client Functions of Systemwalker Operation Manager**.

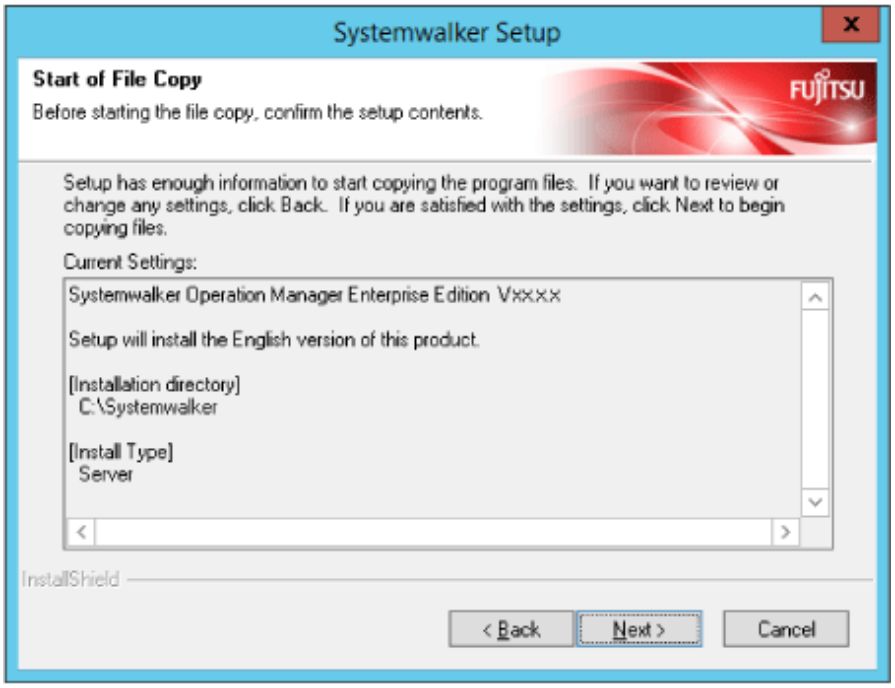



Click **Next**.

### 4. Select the installation directory

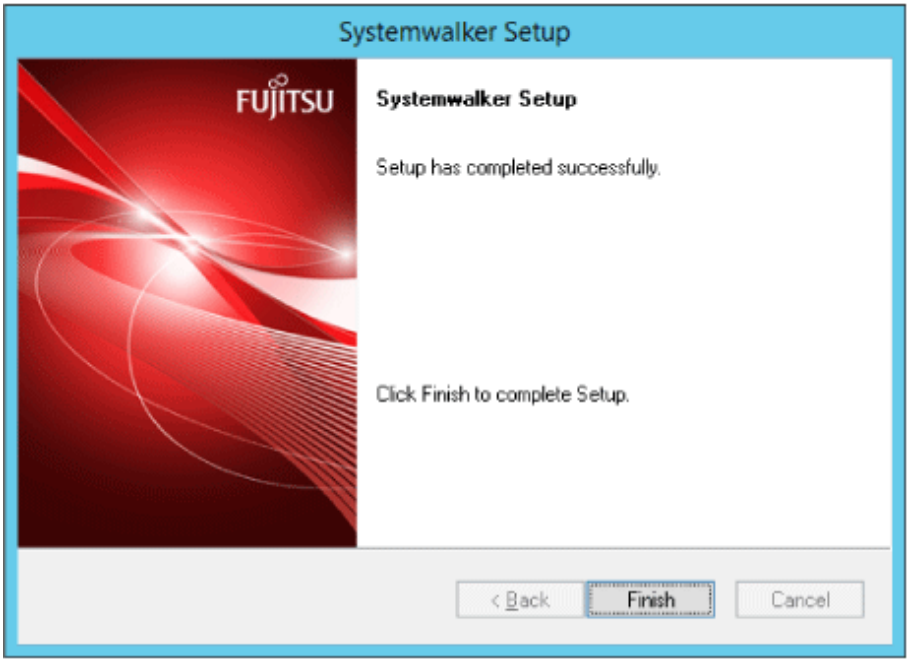



Click **Next** to display the **Start of File Copy** window. Confirm the displayed content.




Click **Next**.

## 5. Complete installation




Click **Finish** to complete the installation of Systemwalker Operation Manager.

If any of the following conditions applies, you must restart the system:

- Systemwalker Centric Manager is installed.
- The installation is not a new installation.

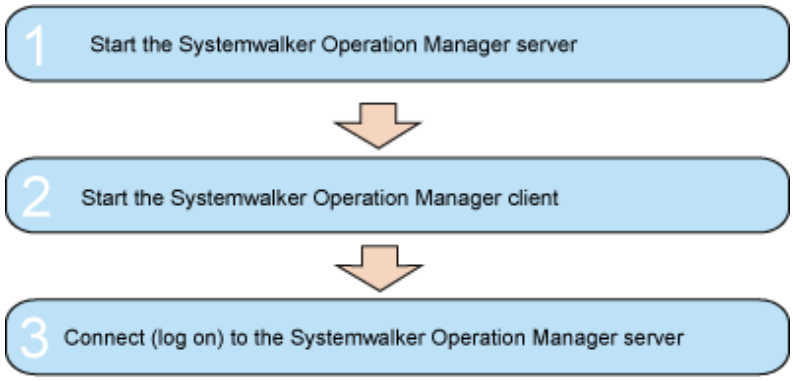
- The Microsoft Visual C++ 2005 Redistributable Package has been installed, the existing version is older than the version that is bundled with the product, and the conditions that require a restart are met.

# Chapter 4 Starting/Stopping Systemwalker Operation Manager

This chapter explains how to start and stop Systemwalker Operation Manager.

## 4.1 Starting

Use the procedure explained below to start Systemwalker Operation Manager




### 1. Start the Systemwalker Operation Manager server

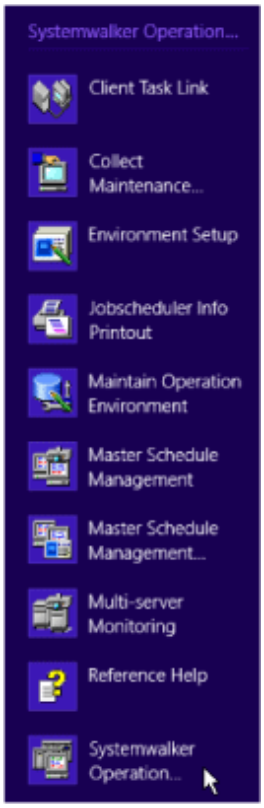
Power on the computer where you installed the Systemwalker Operation Manager server.

The Systemwalker Operation Manager server will start automatically.

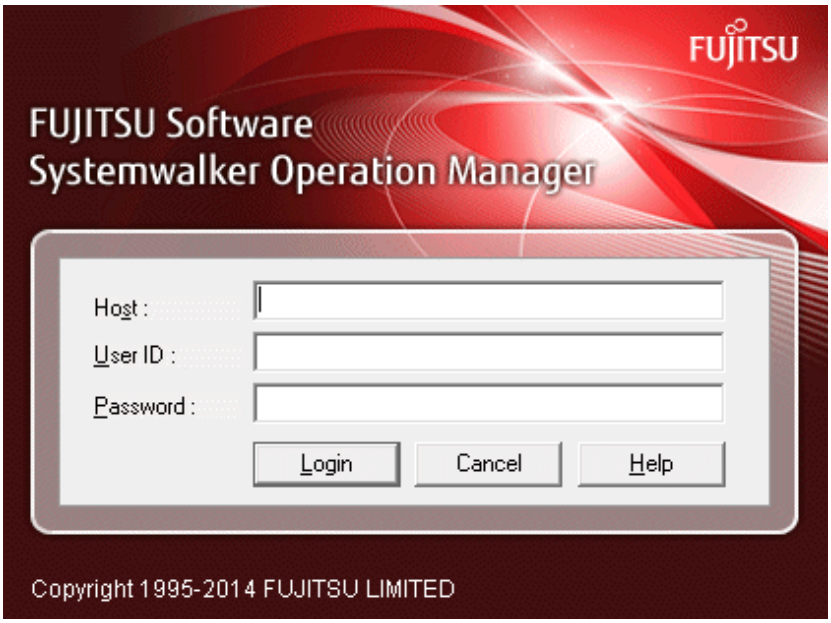
When the Systemwalker Operation Manager server has started, start the Systemwalker Operation Manager client so that the Systemwalker Operation Manager functions can be used from the client.

### 2. Start the Systemwalker Operation Manager client

On the computer where you installed the client, click **Start** or **Apps** >> **Systemwalker Operation Manager** >> **Systemwalker Operation Manager**.




The **Systemwalker Operation Manager [Login]** window is displayed.



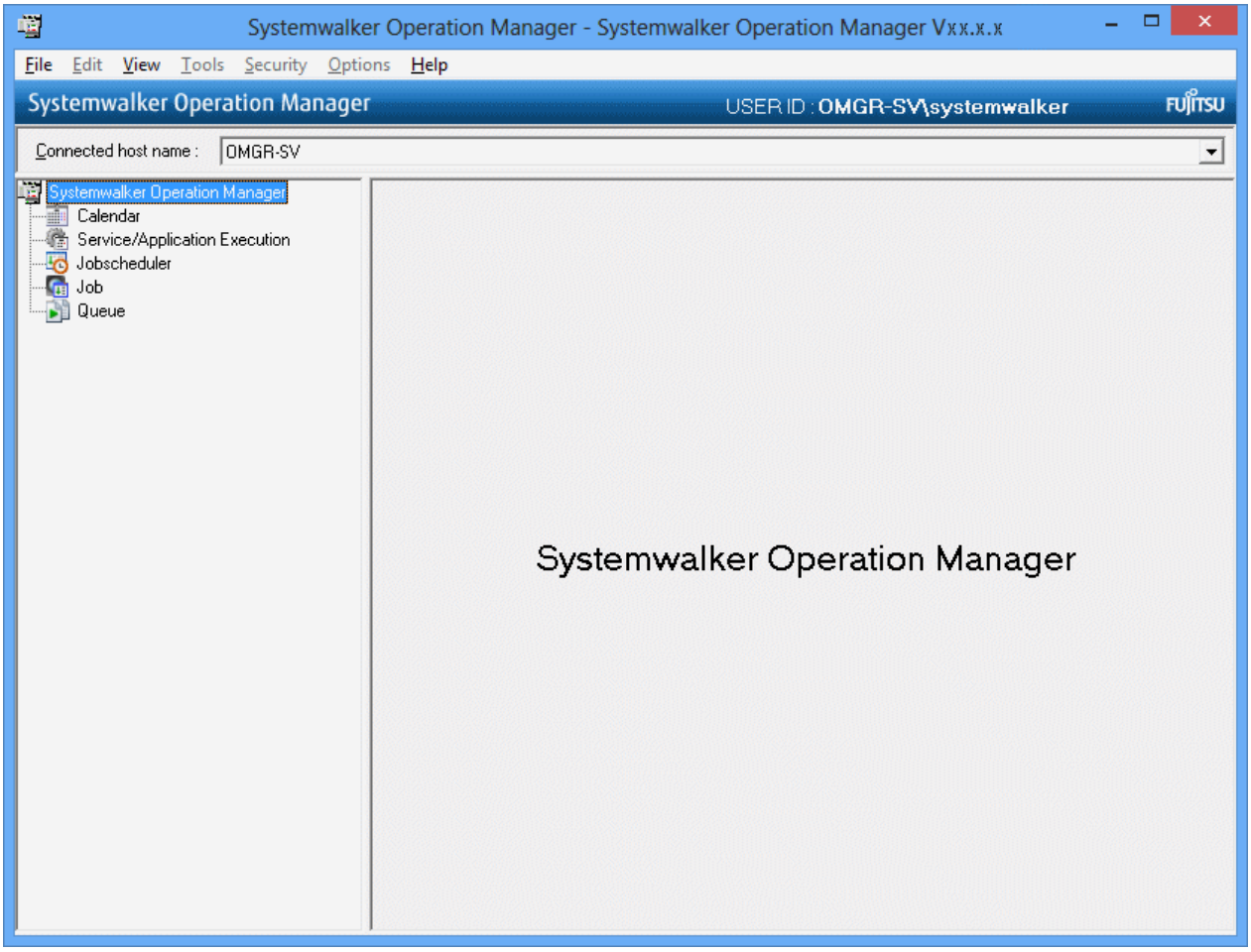

## 3. Connect (log in) to the Systemwalker Operation Manager server

Log in using the **Systemwalker Operation Manager [Login]** window.

If connecting to the Systemwalker Operation Manager server on the host where you have logged on, you can leave the host name field blank. Specify a user ID and password, and click the **Login** button.

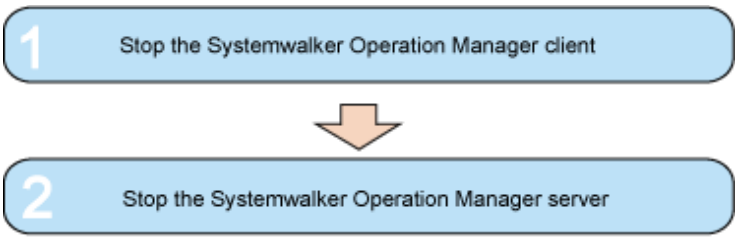
You can also omit the user ID and password. If you omit them, the system uses the user ID and password that you used to log on to the operating system.

When the **Systemwalker Operation Manager** window below is displayed, it indicates that the Systemwalker Operation Manager client has started.




# 4.2 Stopping

Use the procedure explained below to stop Systemwalker Operation Manager.




### 1. Stop the Systemwalker Operation Manager client

From the **Systemwalker Operation Manager** window, click the **File** menu, and then click **Exit** or the **x** (Close) button on the window.

When the **Systemwalker Operation Manager** window closes, it indicates that the Systemwalker Operation Manager client has stopped.

## 2. Stop the Systemwalker Operation Manager server

Shut down the computer where you installed the Systemwalker Operation Manager server.

The services of the various Systemwalker Operation Manager functions will stop automatically and the Systemwalker Operation Manager server will stop.

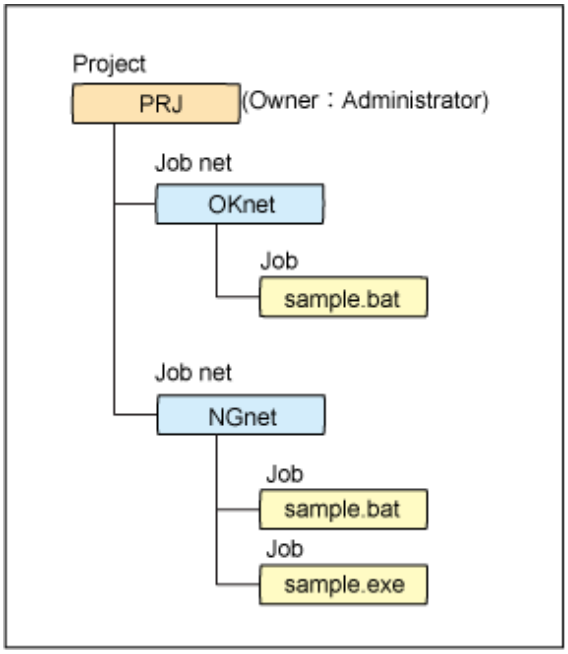
# Chapter 5 Registering a Job

This chapter explains various operations, from how to create projects to how to register jobs.

Use this chapter to learn the procedures while you actually register a job.

### Project configuration

The sections in this chapter explain the procedures for creating and registering the project, job nets, and jobs illustrated below.




### Commands to be used

Create the following command in preparation for registering it in jobs:

c:\tmp\sample.bat

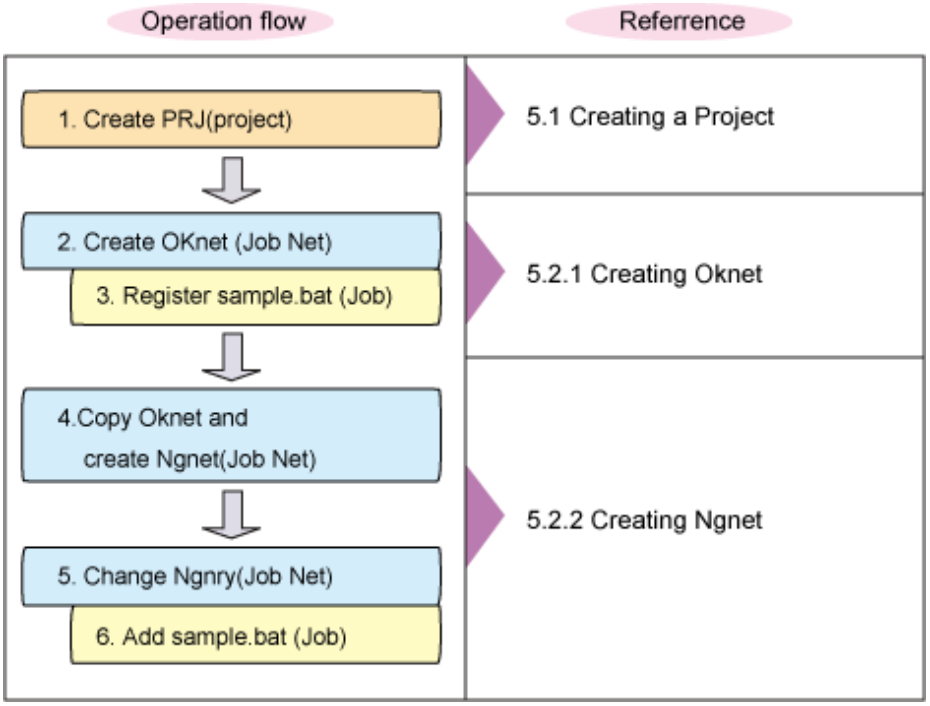
```
@echo off

echo "Hello, world!"
```

Ensure that the "sample.exe" command does not exist in the c:\tmp folder.

### Workflow

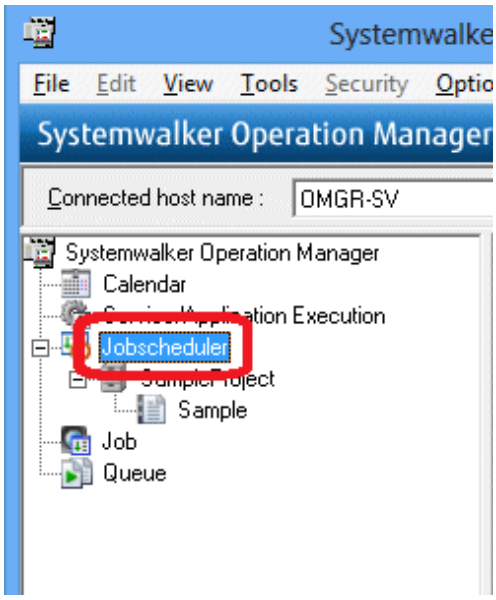
Use the following flow to create and register the project, job nets, and jobs.



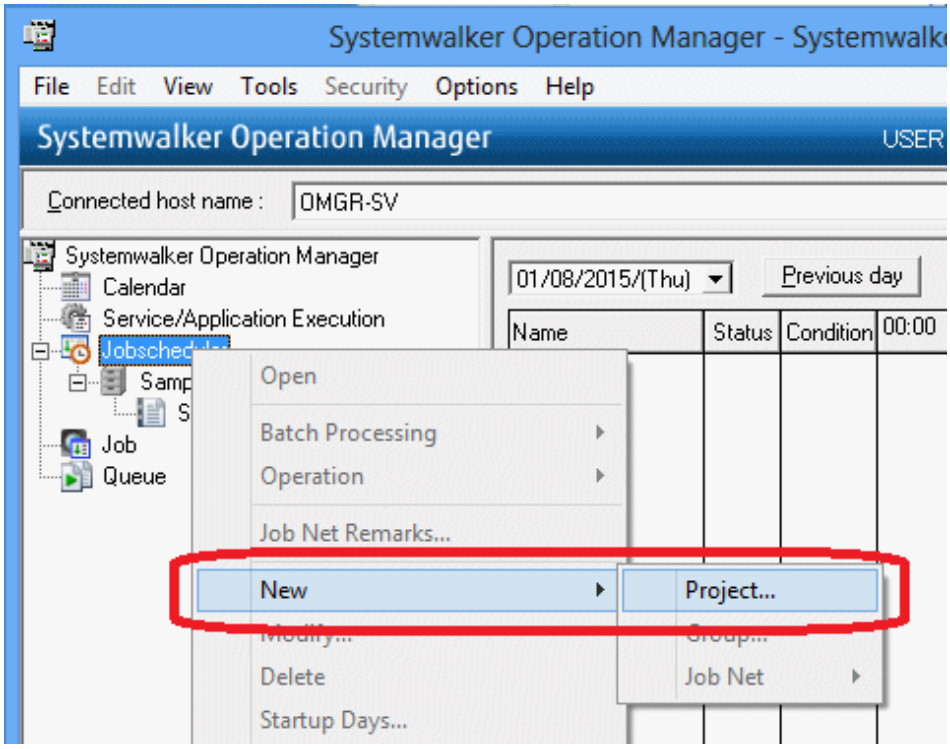

# 5.1 Creating a Project

Create a project to manage the job nets.

1. In the **Job Selection** window, select "Jobscheduler".

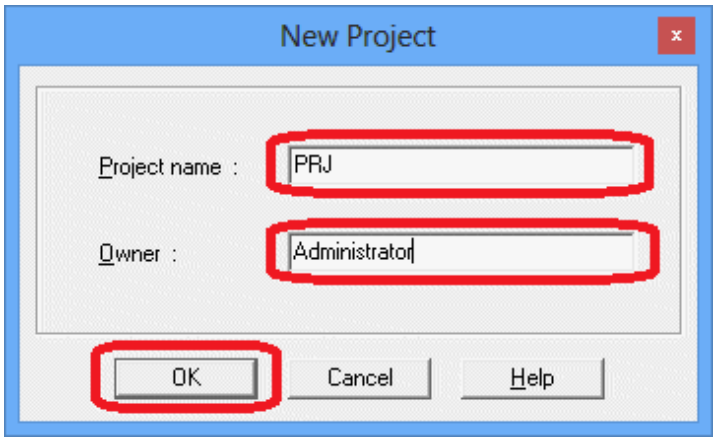


2. Right-click and select **New** >> **Project**.

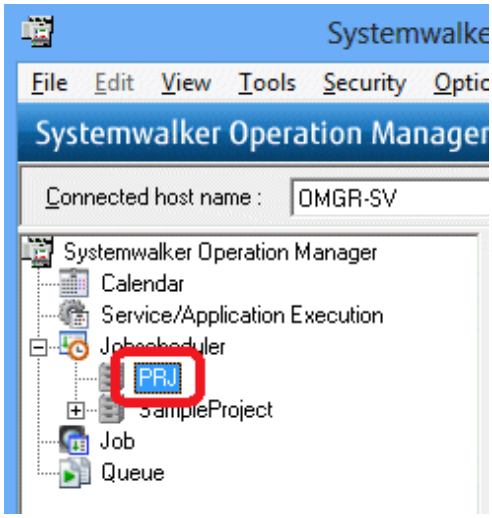



3. The **New Project** window will be displayed. Enter "PRJ" for **Project name** and "administrator" for **Owner**.

   Click **OK**.



4. Expand "Jobscheduler" and confirm that the "PRJ" project has been registered under Jobscheduler.




The "PRJ" project has now been created.

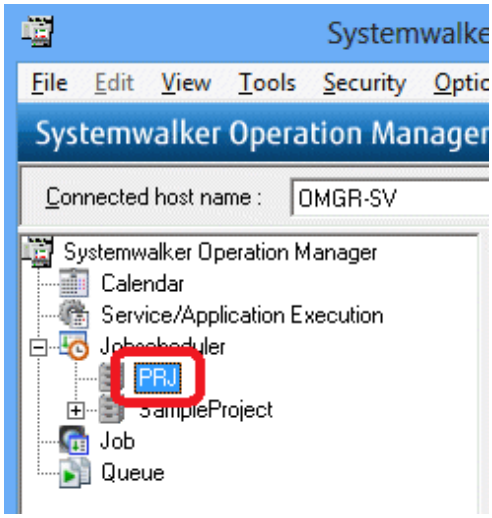
## 5.2 Creating Job Nets and Registering Jobs

Create job nets for the "PRJ" project and register jobs. This section explains how to create the "OKnet" job net, which terminates normally, and the "NGnet" job net, which terminates abnormally.

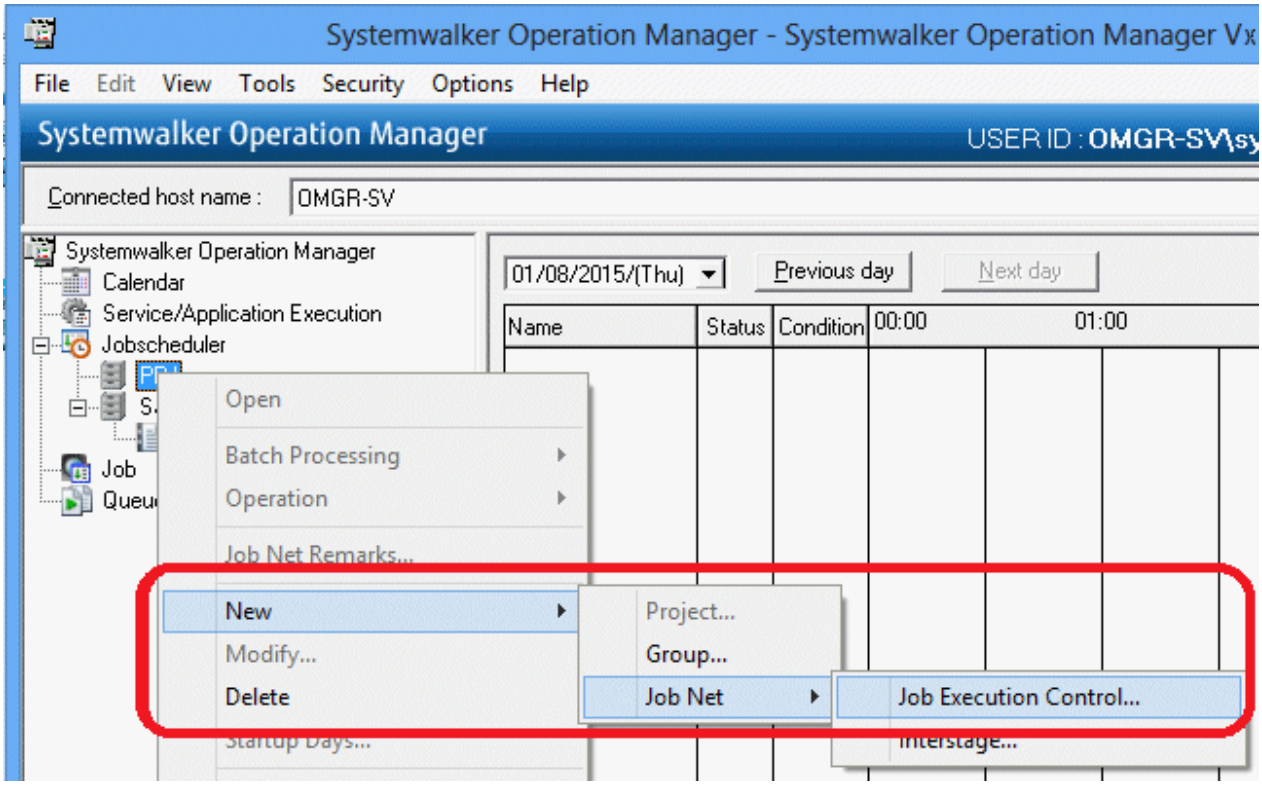
### 5.2.1 Creating OKnet (Job Net)

Create the "OKnet" job net, which terminates normally, and register jobs.

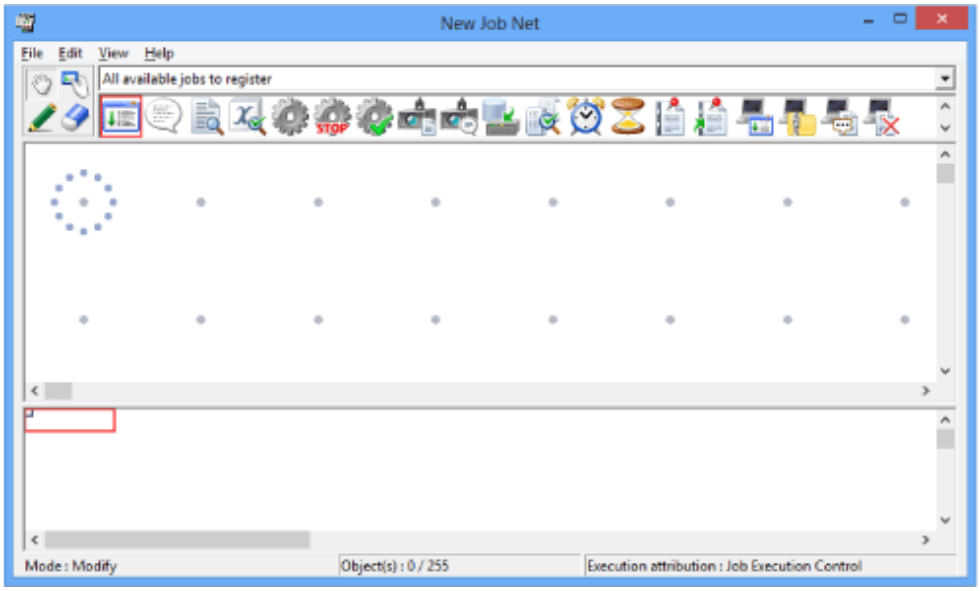
1. In the **Job Selection** window, select the "PRJ" project you created.



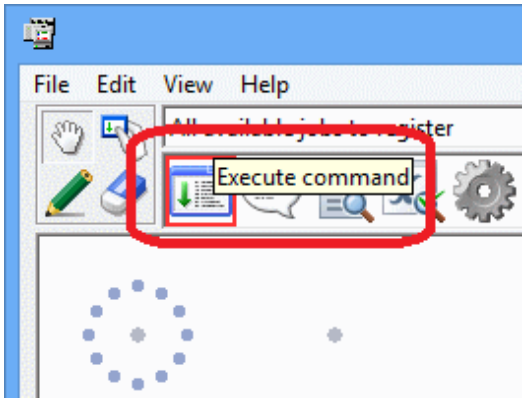
2. Right-click and select **New** >> **Job Net** >> **Job Execution Control**.



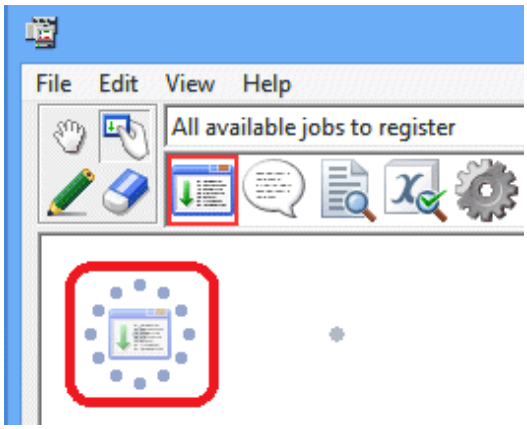

3. The **New Job Net** window will be displayed.



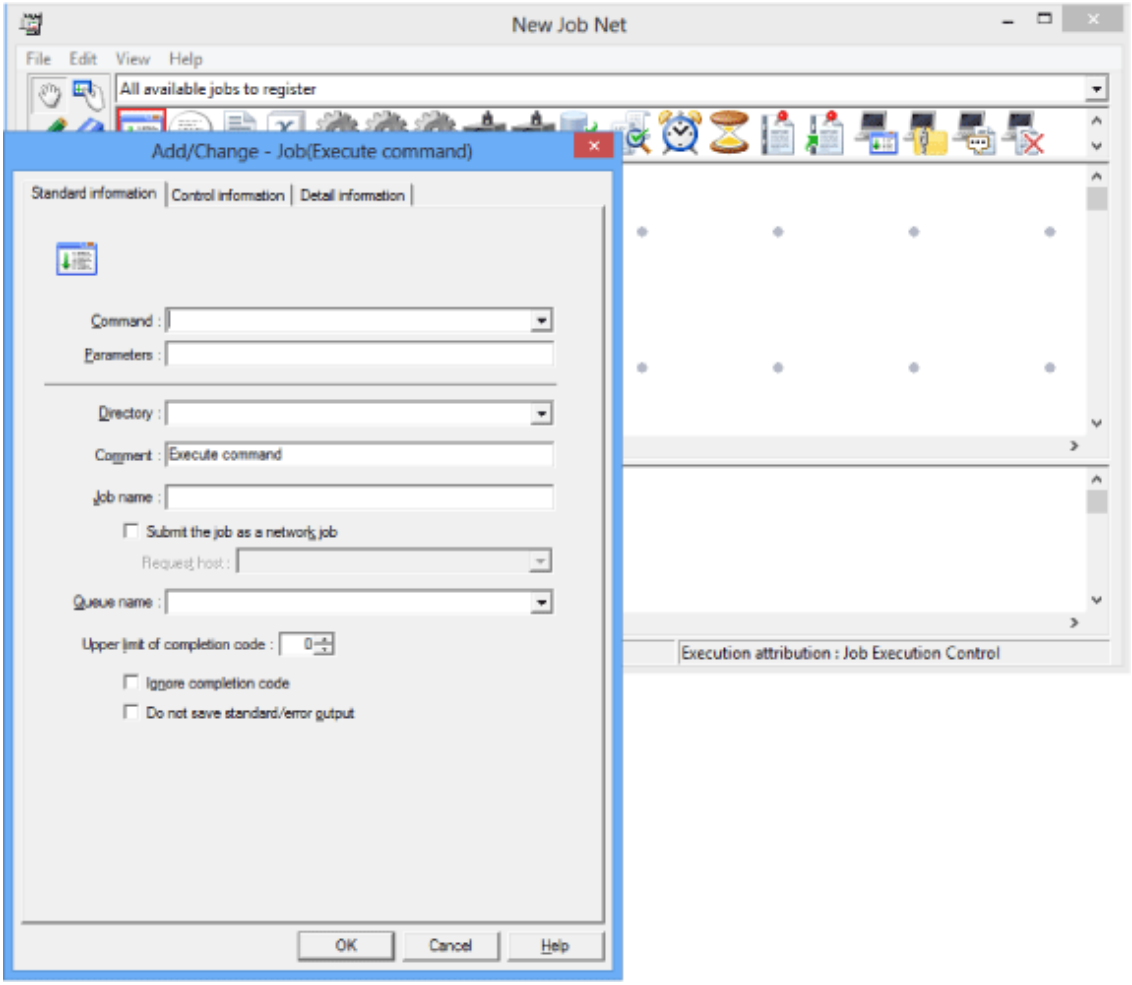
4. From the icon selection area, select the command execution icon.




5. Move the pointer to any position in the job flow display area.

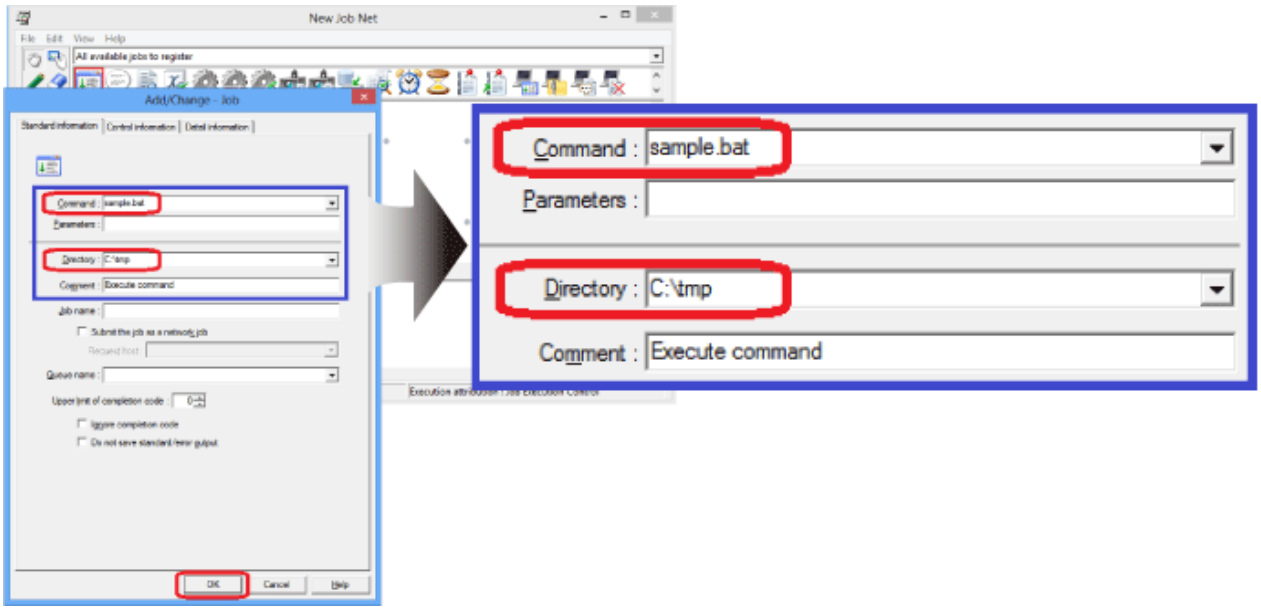


6. Click at any position in the job flow display area to place the job icon in that position and display the **Add/Change - Job** window.




7. In the **Standard information** tab, enter "sample.bat" for **Command** and "c:\tmp" for **Directory** (folder name where the command is stored).

   Click **OK**.

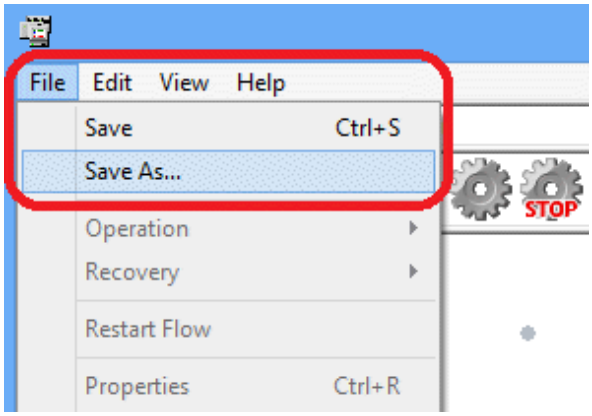


8. The "sample.bat" command name is displayed under the command execution icon.

A job has now been registered.

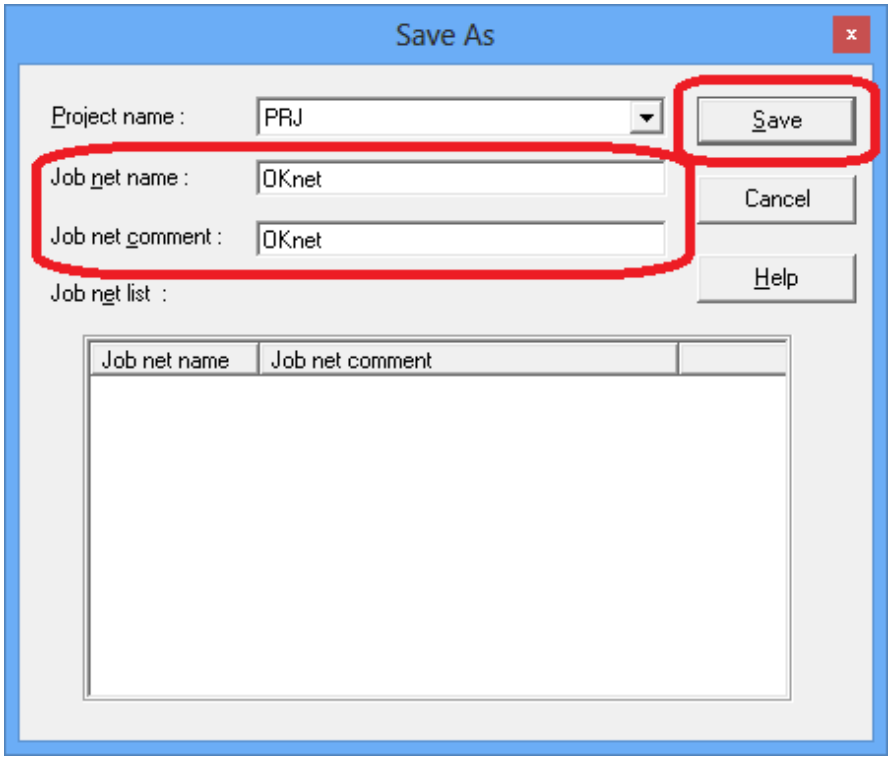
9. Save the job net.

In the **New Job Net** window, select **File** >> **Save As**.



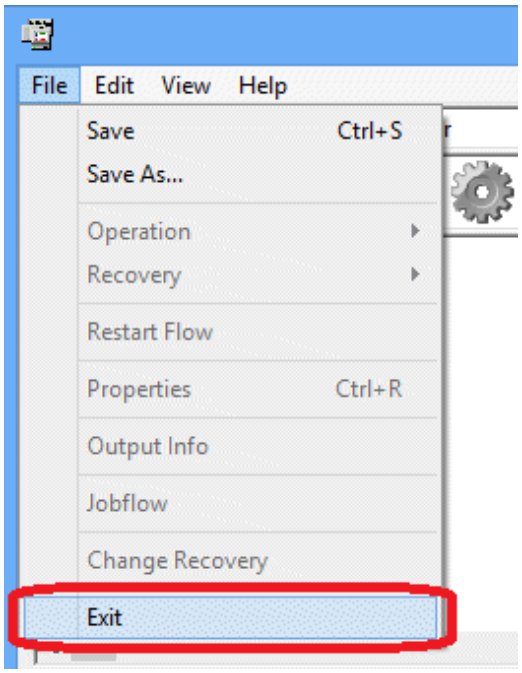
10. The **Save As** window will be displayed. Enter "OKnet" for **Job net name**. The same string will be entered for **Job net comment**.

    Click **Save**.

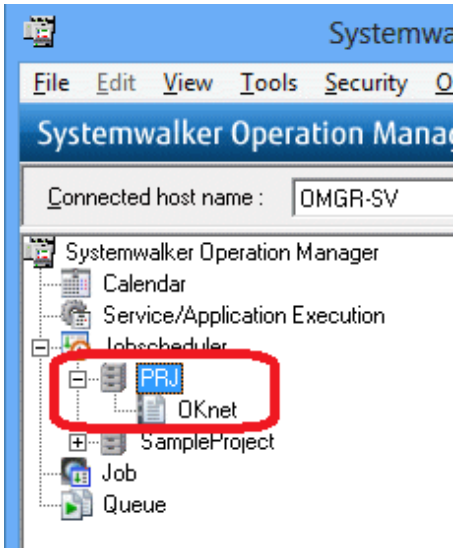



11. The **New Job Net** window will change to the **Change Job Net** window.

    Select **File** >> **Exit** to close the **Change Job Net** window.



12. Expand the "PRJ" project and confirm that the "OKnet" job net has been registered.




The "OKnet" job net has now been created.

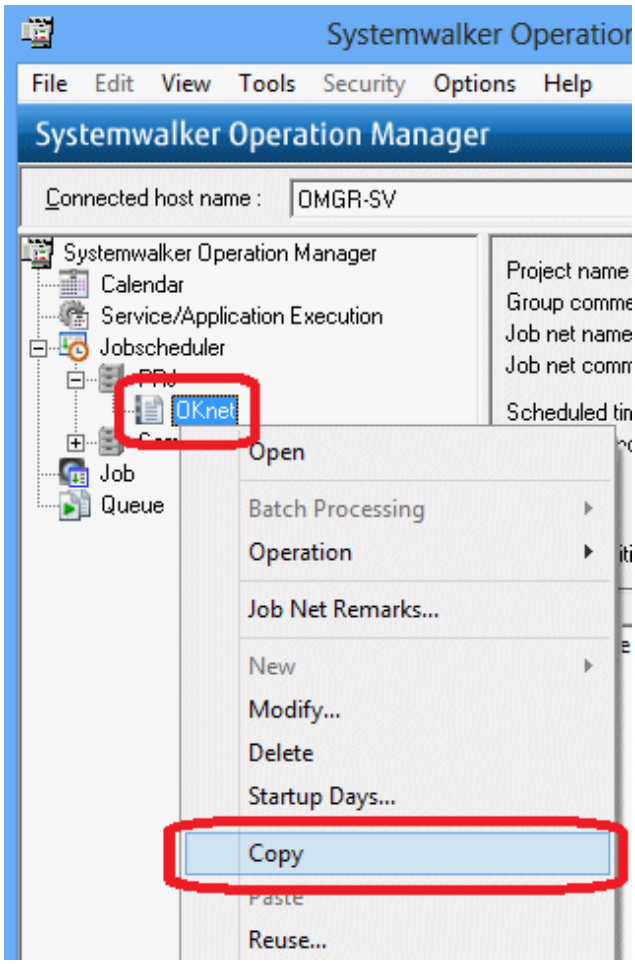
## 5.2.2 Creating NGnet (Job Net)

Register the "NGnet" job net, which terminates abnormally, similarly to how the "OKnet"job net was created.

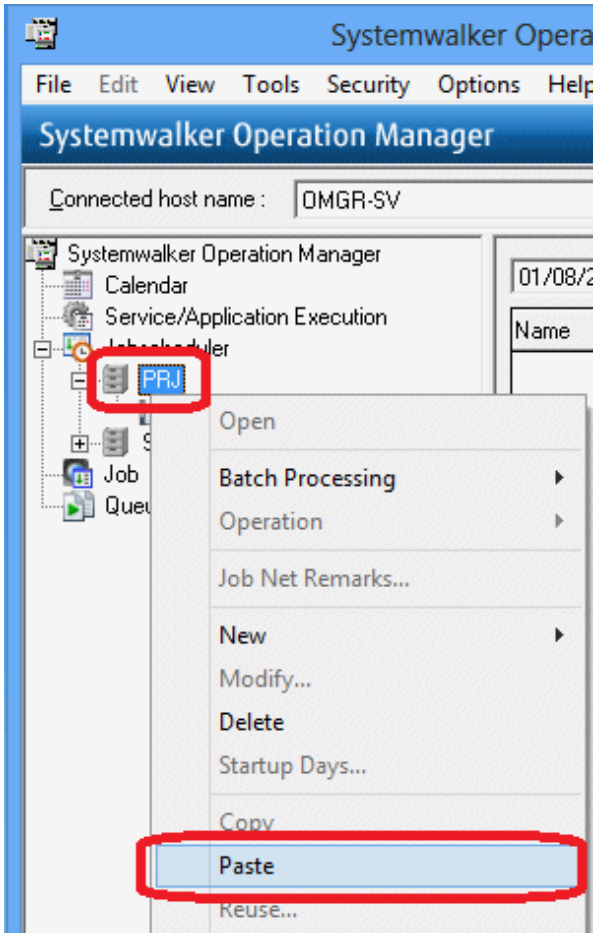
The procedure is the same as that for registering the "OKnet" job net up to the step for registering the "sample.bat" job. Therefore, create the "NGnet" job net by copying the "OKnet" job net and then registering the "sample.exe" job.

### Copy OKnet

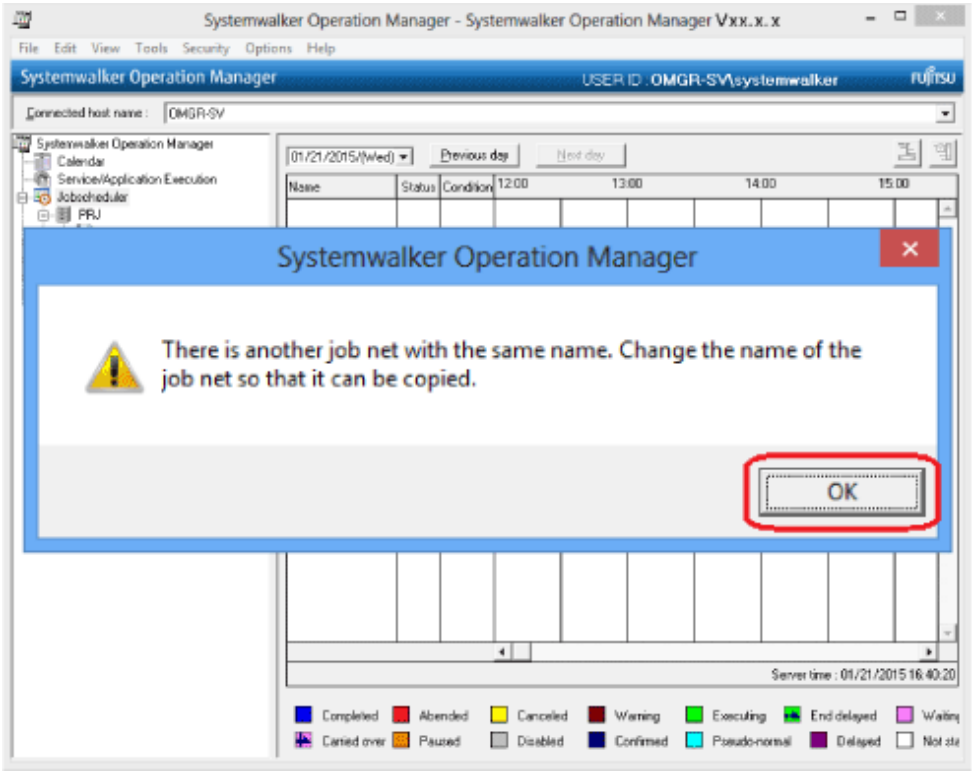
1. Select the "OKnet" job net (which is the copy source), right-click and select **Copy**.



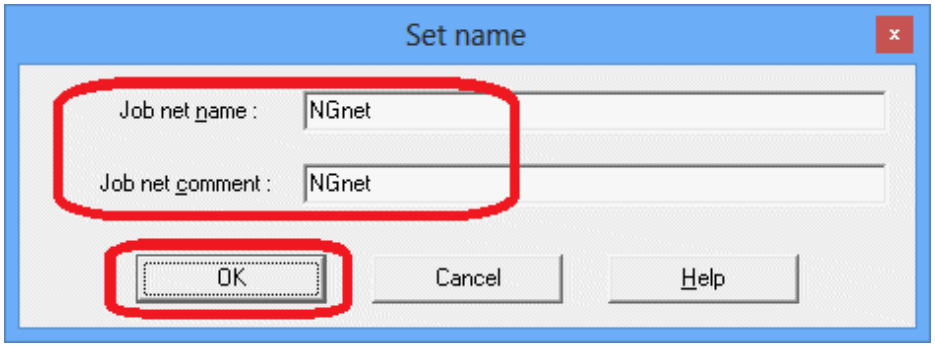
2. The "NGnet" job net is to be created in the "PRJ" project, so select the "PRJ" project, right-click and select **Paste**.



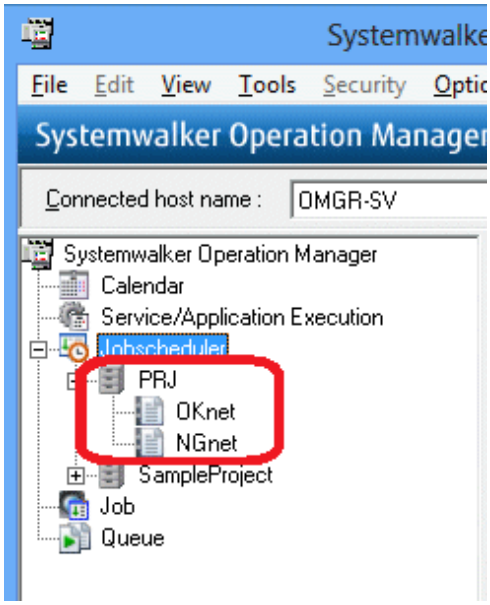

3. A message prompting to change the job net is displayed. Click **OK**.



4. The **Set name** window will be displayed. Change **Job net name** and **Job net comment** to "NGnet" and click **OK**.



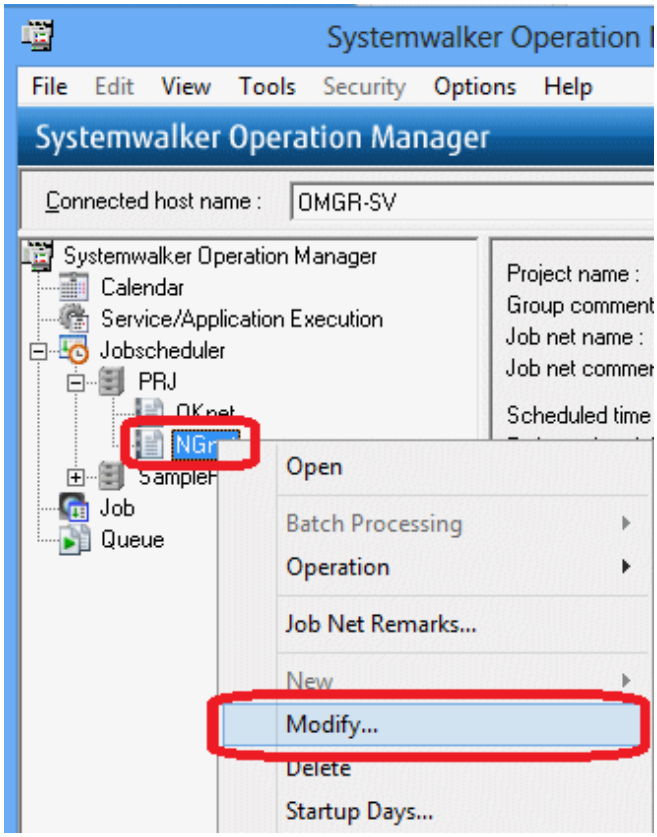

5. Expand the "PRJ" project and confirm that the "NGnet" job net has been registered.




### Change NGnet and add the job

Register the additional job "sample.exe".

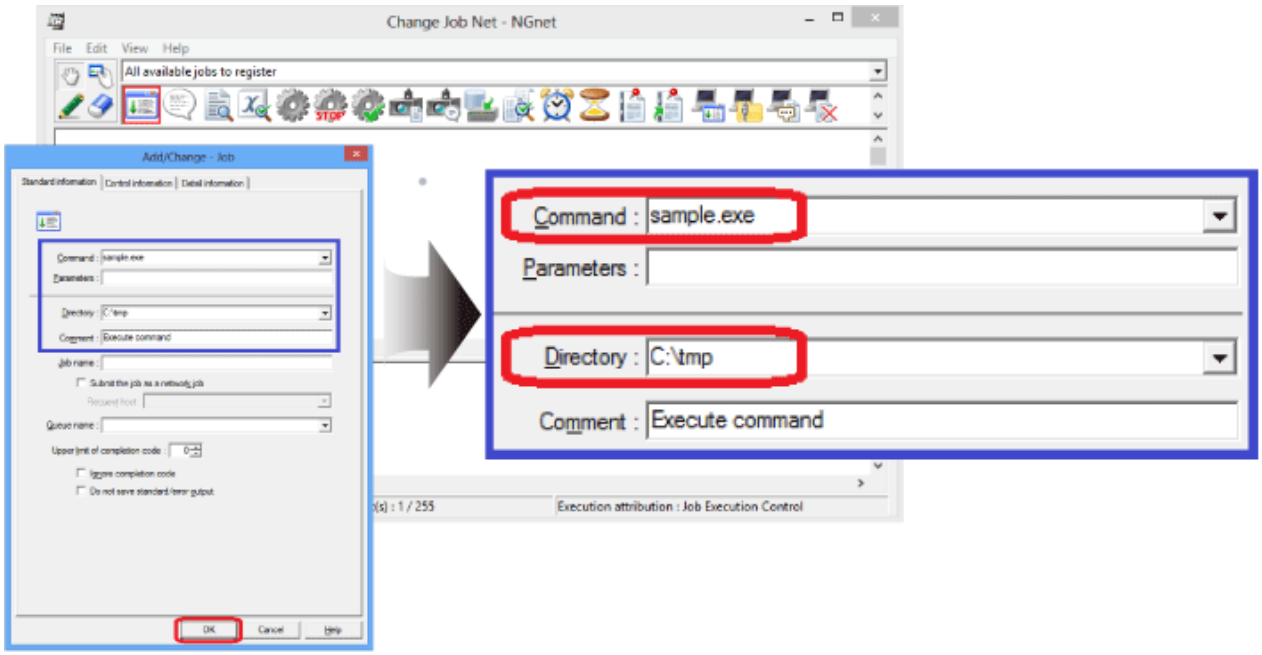
1. Select the "NGnet" job net, right-click and select **Modify**.



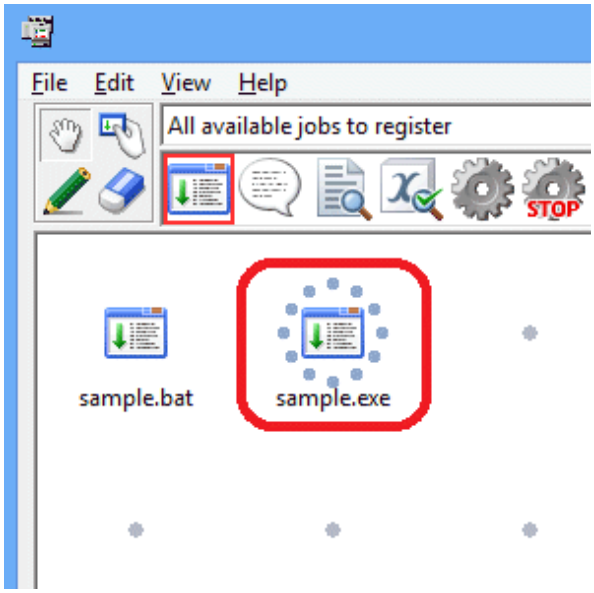

2. In the **Change Job Net** window, select the command execution icon, and click the area next to the "sample.bat" job in the job flow display area.

   The **Add/Change - Job** window will be displayed. Click the **Standard information** tab and enter a non-existing command for **Command** and **Directory**, as shown below.

   Click **OK**.

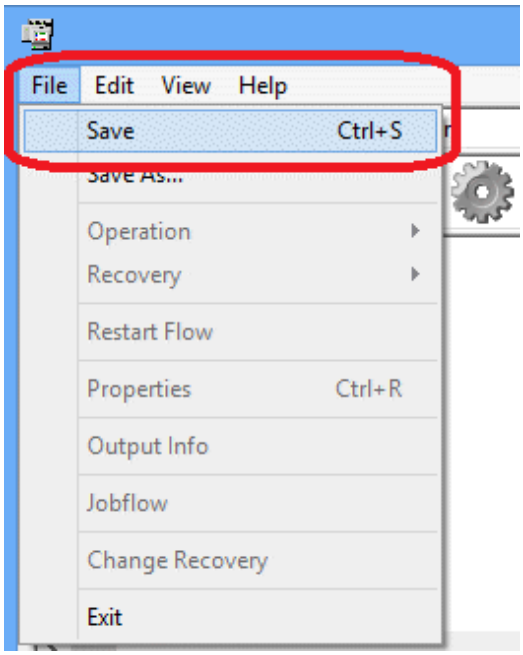


3. The command name "sample.exe" will be displayed under the command execution icon.




A job has now been registered.

4. In the **Change Job Net** window, select **File** >> **Save**.




Select **File** >> **Exit** to close the **Change Job Net** window.

The "NGnet" job net has now been created.

You have now finished creating the "OKnet" job net and "NGnet" job net.

# Chapter 6 Monitoring a Job

This chapter explains how to monitor a job.

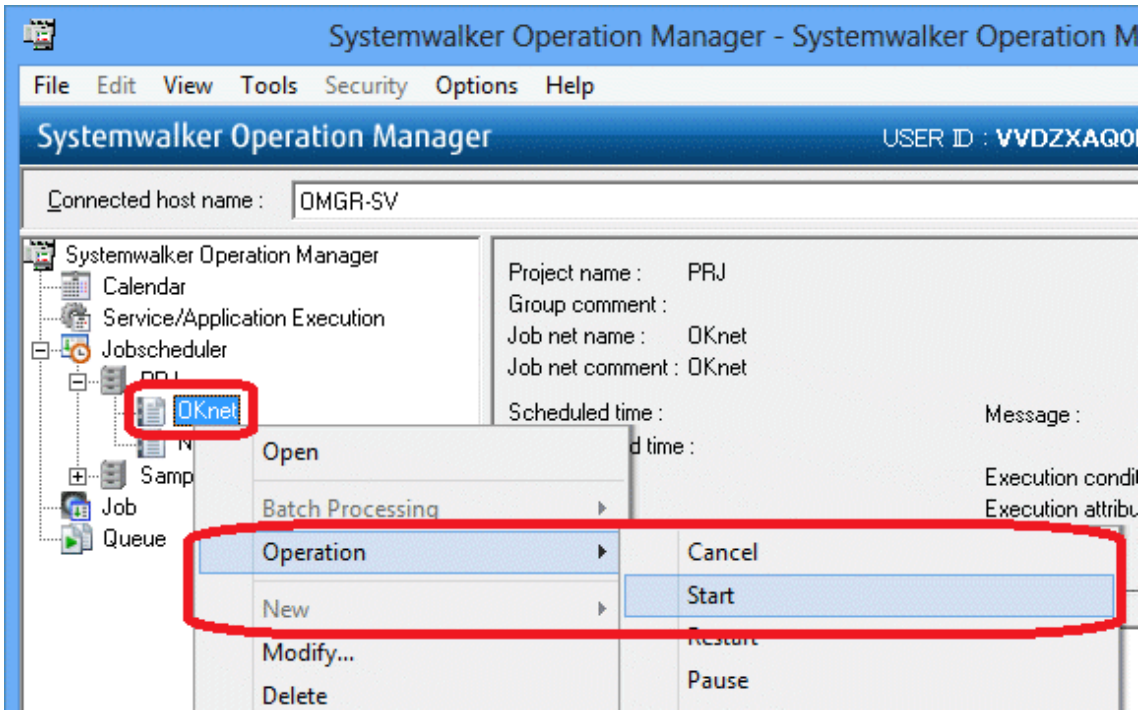
Before monitoring a job, you must first start a job net, and then execute a job. After that it can be monitored.

## 6.1 Starting a Job Net

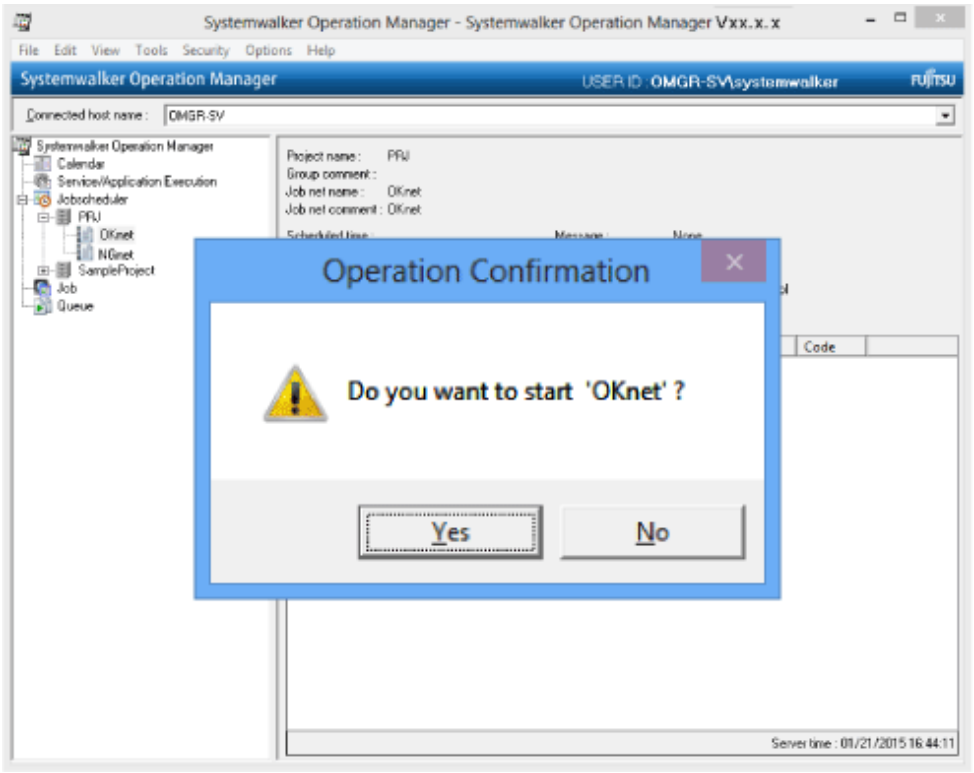
Start the "OKnet" job net and "NGnet" job net that you registered.

1. Start "OKnet".

   In the **Job Selection** window, right-click the "OKnet" job net and select **Operation** >> **Start**.

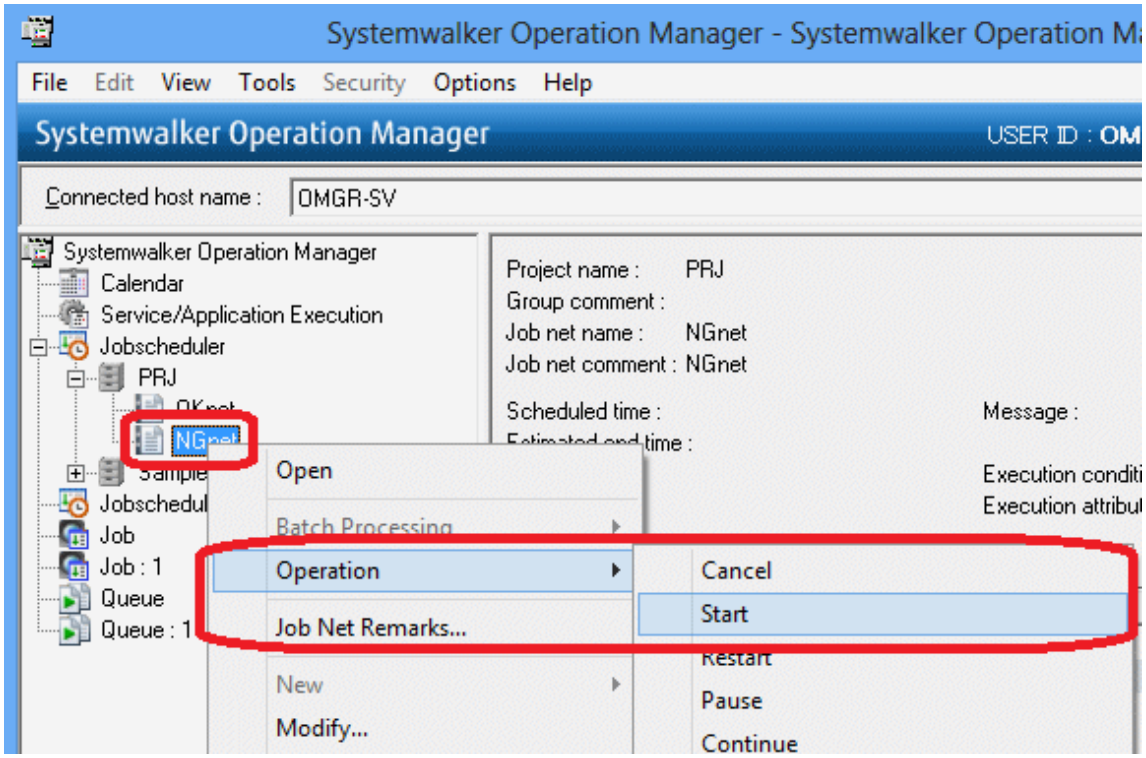


2. The **Operation Confirmation** dialog box will be displayed. Click **Yes**.

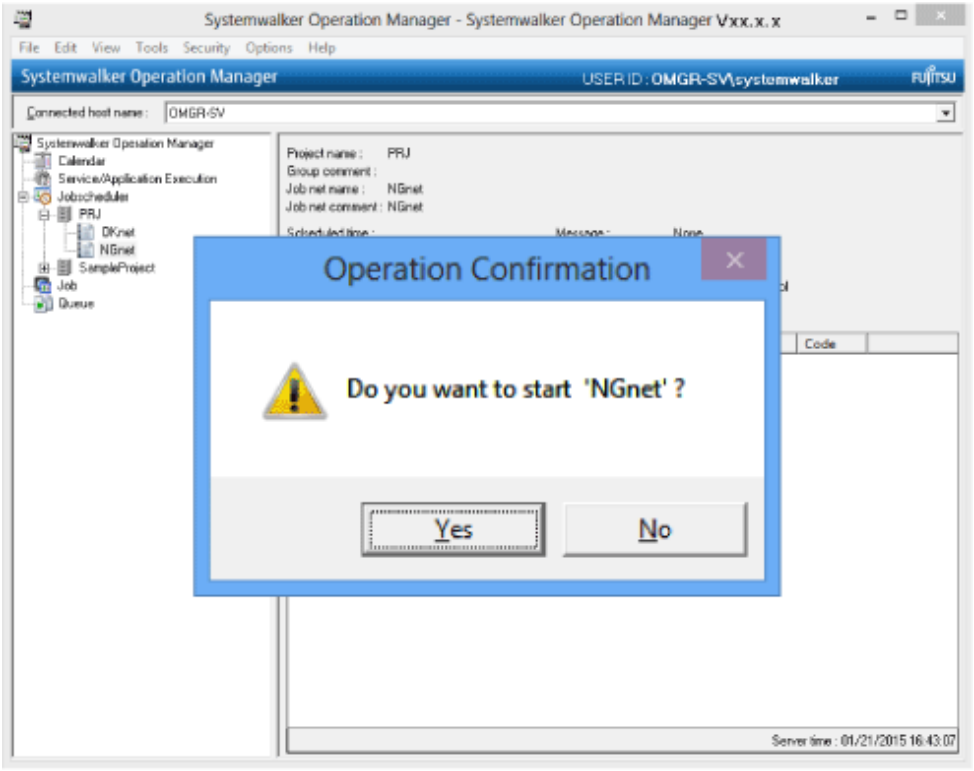



3. Start "NGnet".

   Similarly, in the **Job Selection** window, select the "NGnet" job net, right-click and select **Operation** >> **Start**.



4. The **Operation Confirmation** dialog box will be displayed. Click **Yes**.

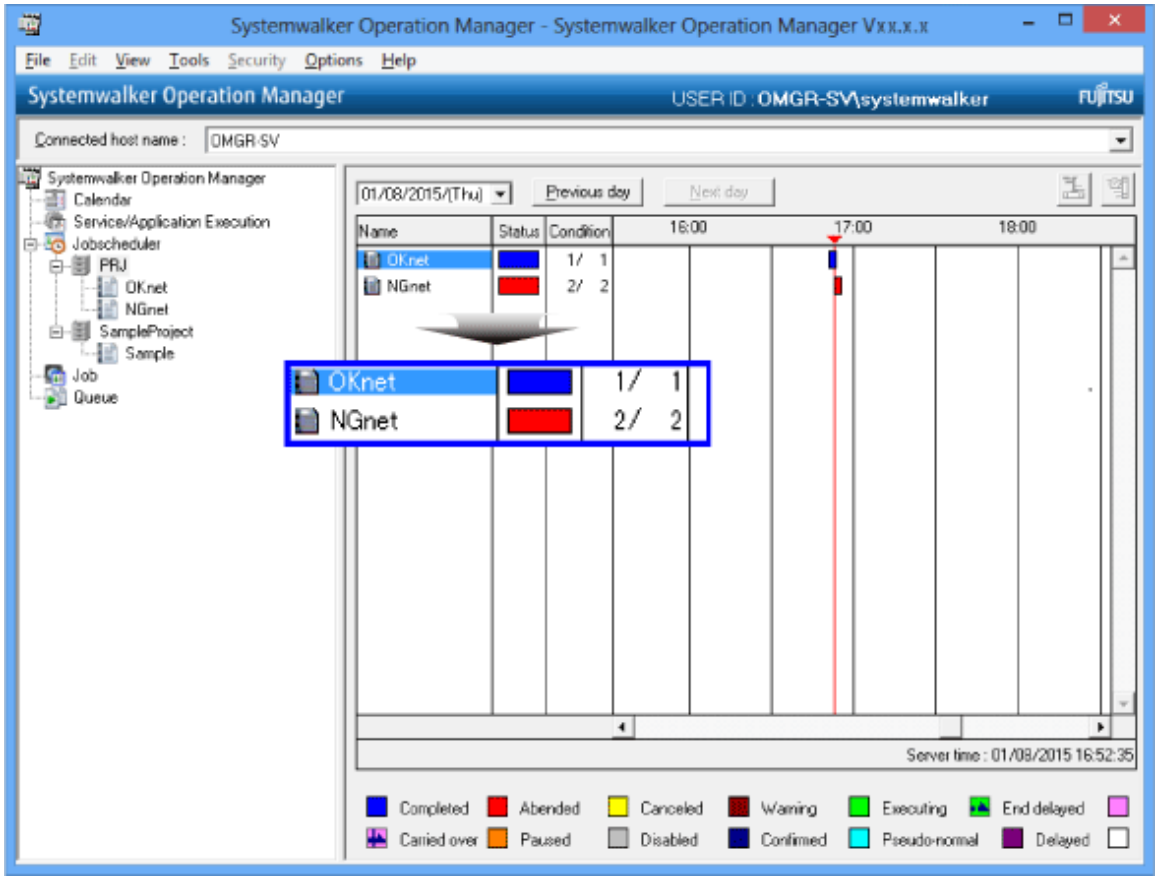



## 6.2 Monitoring a Job

Check the execution result of the job nets and jobs you executed.

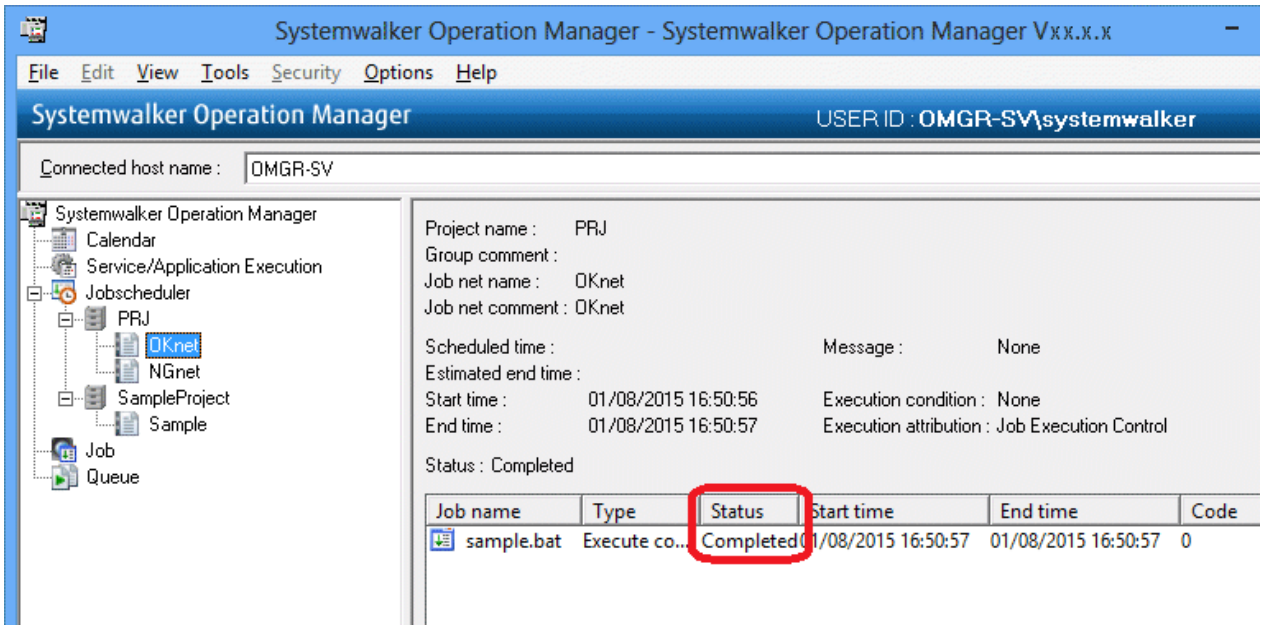
1. In the **Job Selection** window, select the "PRJ" project.

   The **Gantt Chart** window will be displayed. Check the status color to confirm that the "OKnet" job net terminated normally and the "NGnet" job net terminated abnormally.



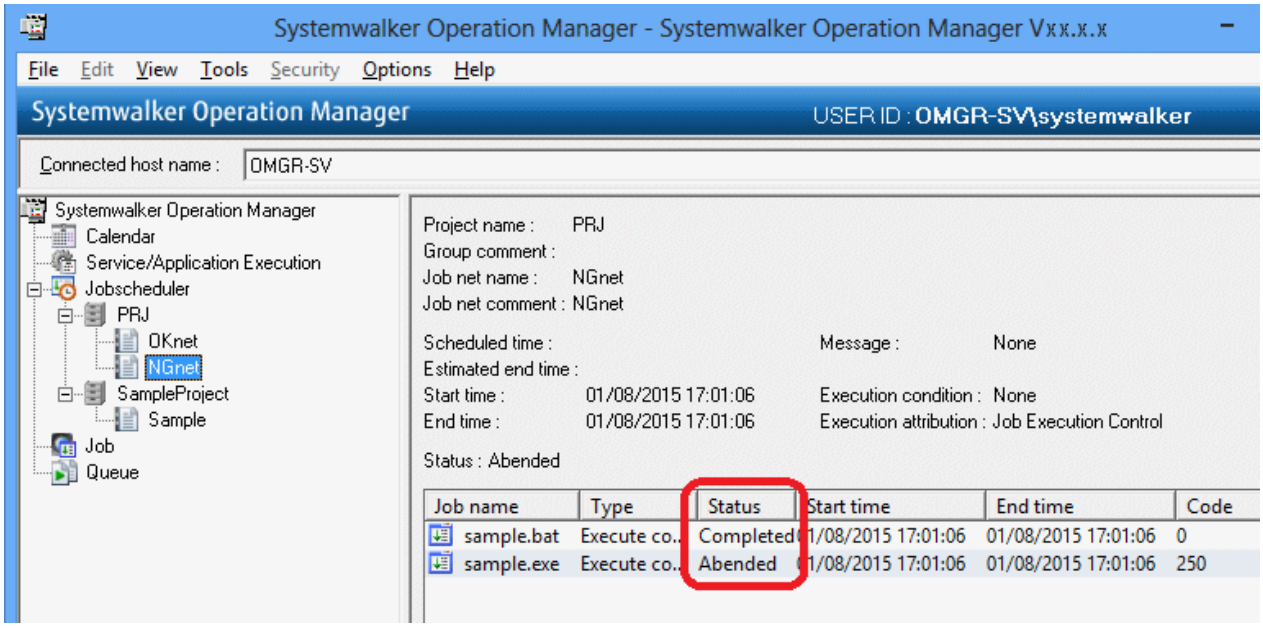

2. In the **Job Selection** window, select the "OKnet" job net.

   In the **Job List** window, confirm that the job terminated normally.



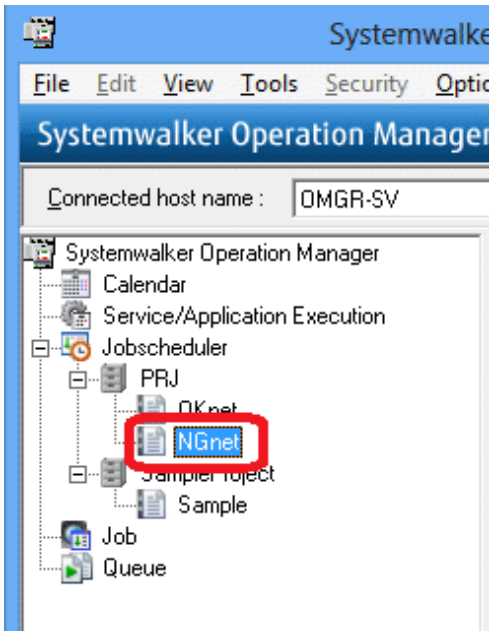
3. In the **Job Selection** window, select the "NGnet" job net.

   In the **Job List** window, confirm that one job terminated normally and the other job terminated abnormally.

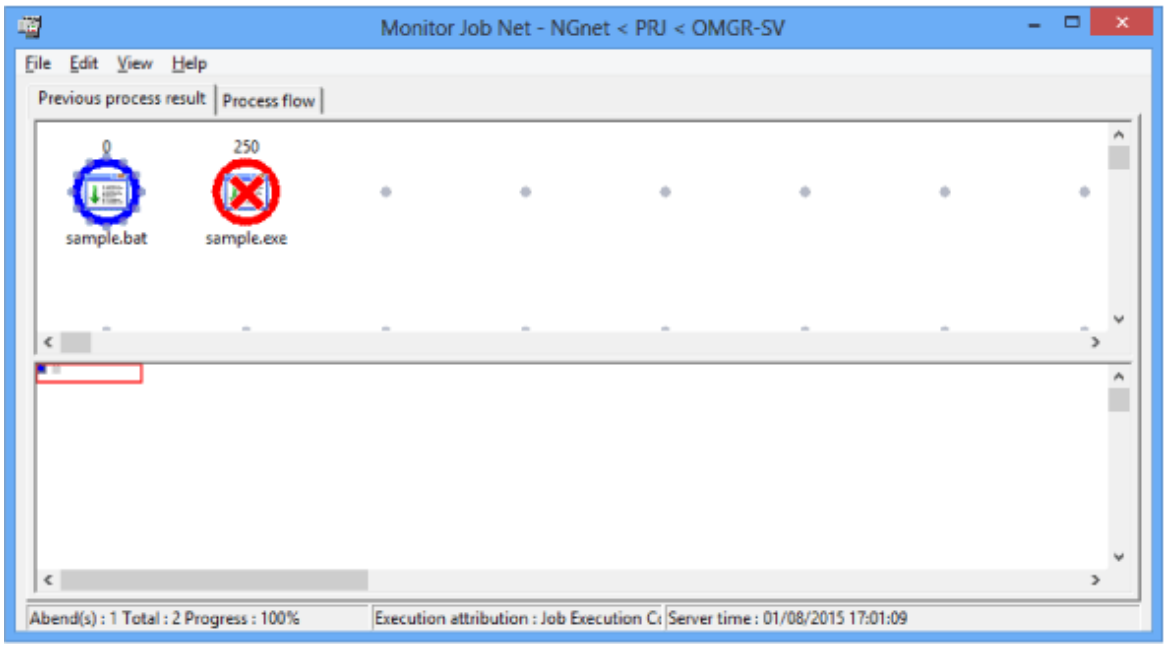



Take a more detailed look at the job net that terminated abnormally.

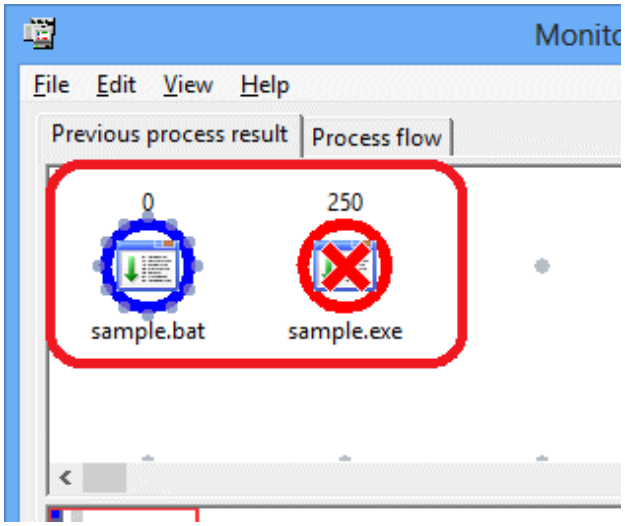
1. In the **Job Selection** window, double-click the "NGnet" job net.



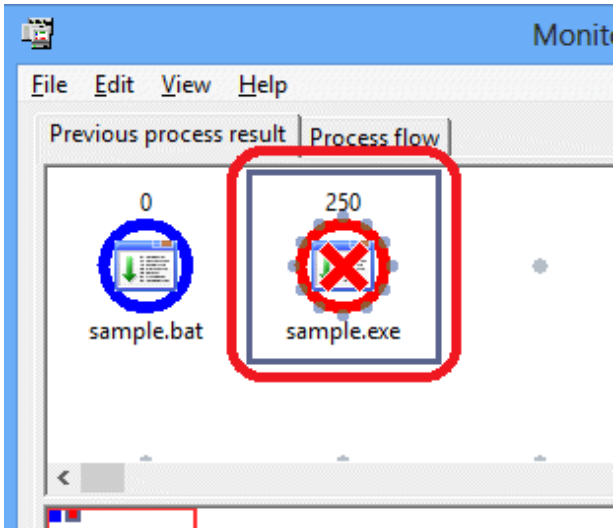
2. The **Monitor Job Net** window will be displayed.

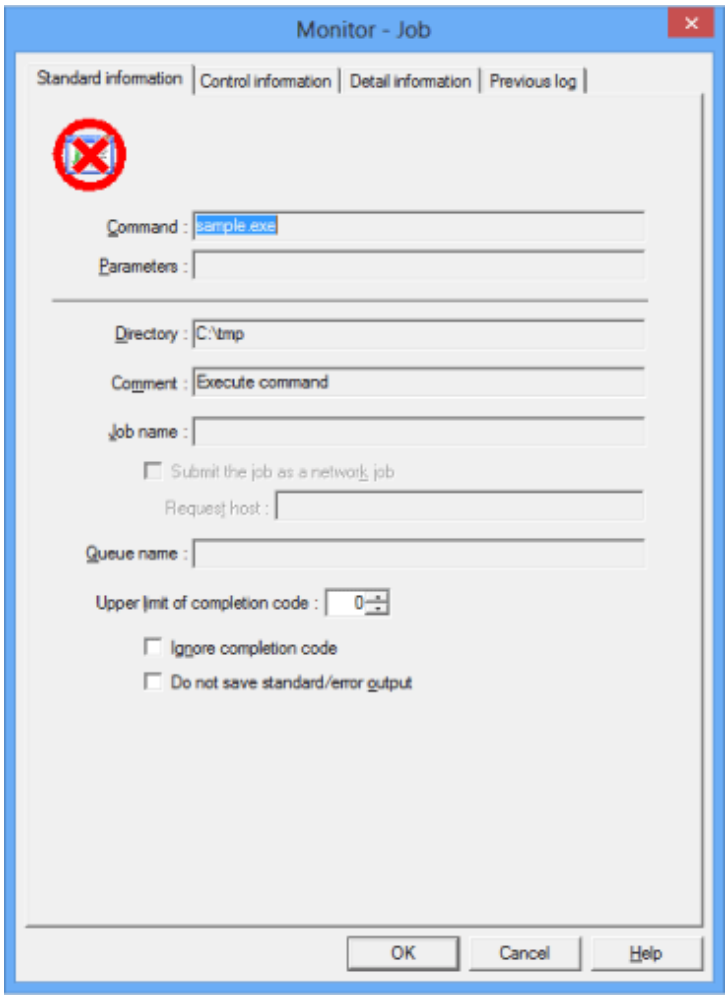



3. Confirm that the "sample.bat" job terminated normally and the "sample.exe" job terminated abnormally.



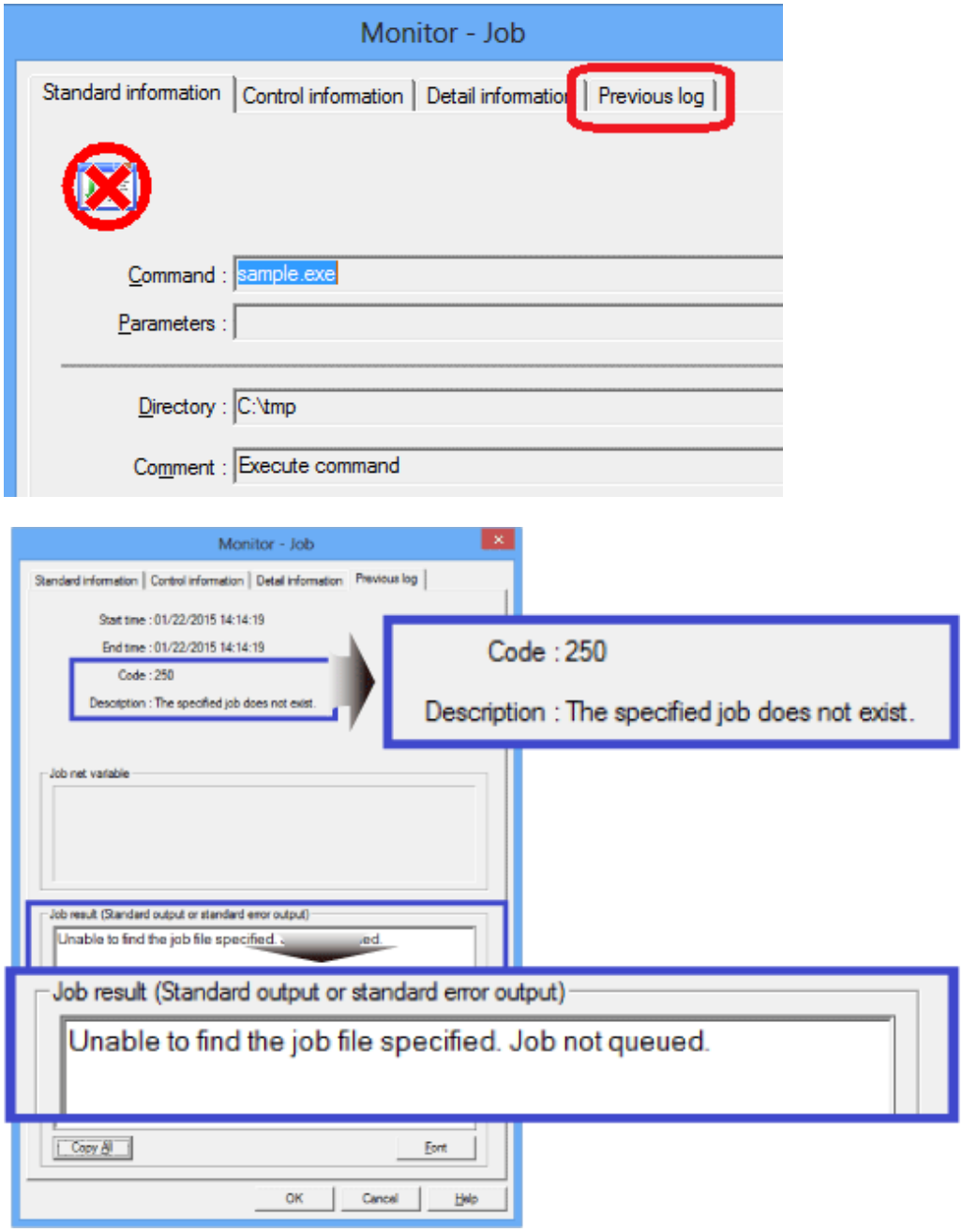
4. When the "sample.exe" job icon is double-clicked, the **Monitor - Job** window will be displayed.



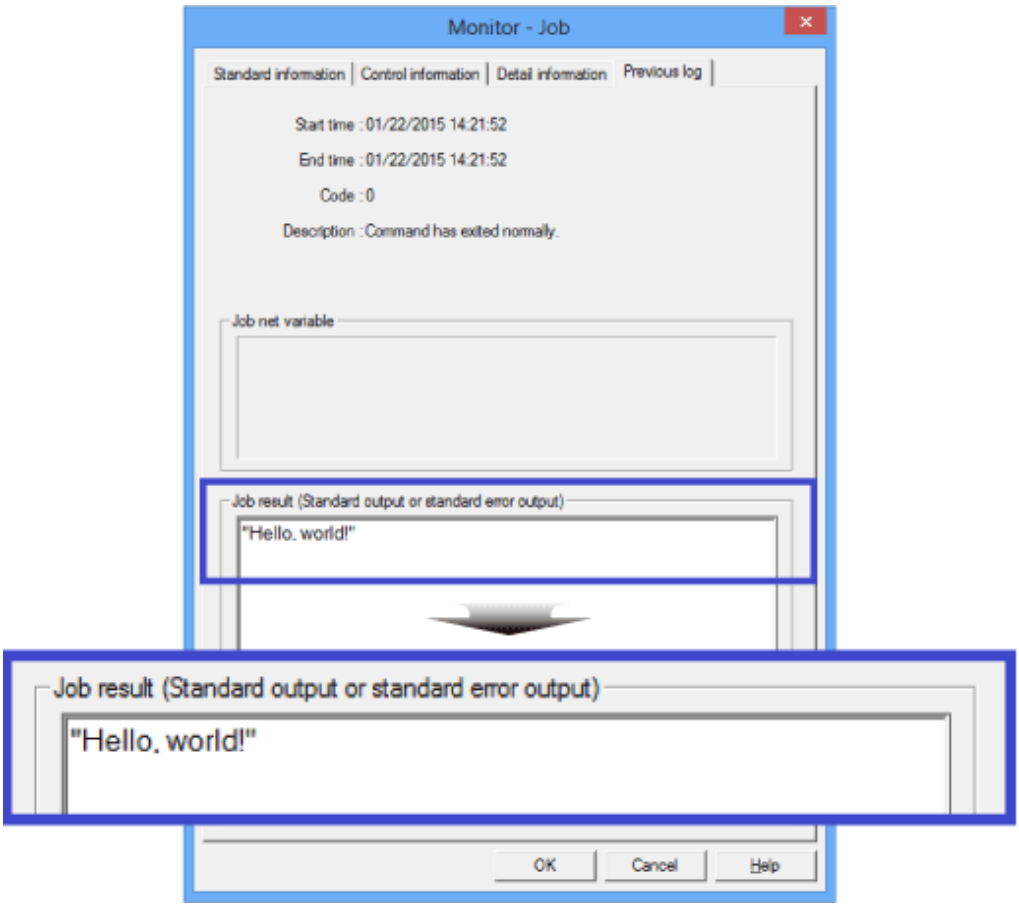



5. Select the **Previous log** tab. You can identify the cause of the error from **Code**, **Description**, and **Job result (Standard output or standard error output)**.

   In the following example, you can see that the cause of abnormal termination was the non-existence of the set job (command).




In the **Previous log** tab for "sample.bat", which terminated normally, the string specified using "echo" in the command is output in **Job result (Standard Output or Standard Error Output)**.


Monitor - Job
Standard information
Control information
Detail information
Previous log
Start time : 01/22/2015 14:21:52
End time : 01/22/2015 14:21:52
Code : 0
Description : Command has exited normally.
Job net variable
Job result (Standard output or standard error output)
"Hello, world!"
OK
Cancel
Help

# Chapter 7 Operation Example: Setting an Execution Condition for a Job Net

"Chapter 6 Monitoring a Job" explains how to manually start job nets and execute jobs. Systemwalker Operation Manager enables you to automatically execute job nets and jobs according to an execution schedule set beforehand.

This chapter explains how to set the execution condition for planned execution of jobs and job nets.

## 7.1 Starting a Job Net at 15:00 on Tuesdays of Odd-Numbered Months

Set the "OKnet" job net created at "Chapter 5 Registering a Job" to start at 15:00 on Tuesdays of odd-numbered months every year.

### Overview

Configure settings in the properties of the "OKnet" job net.

- Set the execution time.

  Use the **Standard information** tab of the **Job Net Properties** window.

  To start the job net at a specified time, select **Execute at** and set an execution time (15:00).

- Set startup days.

  Use the **Startup days** tab of the **Job Net Properties** window.

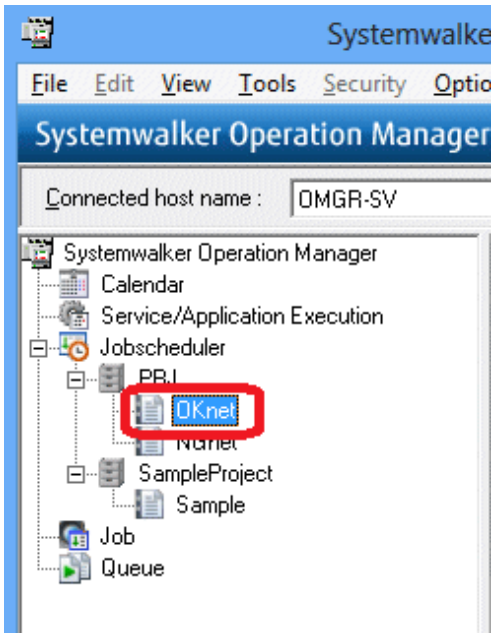
  To start the job net on specific days of the week, set startup days (Tuesdays of odd-numbered months every year).

### Procedure

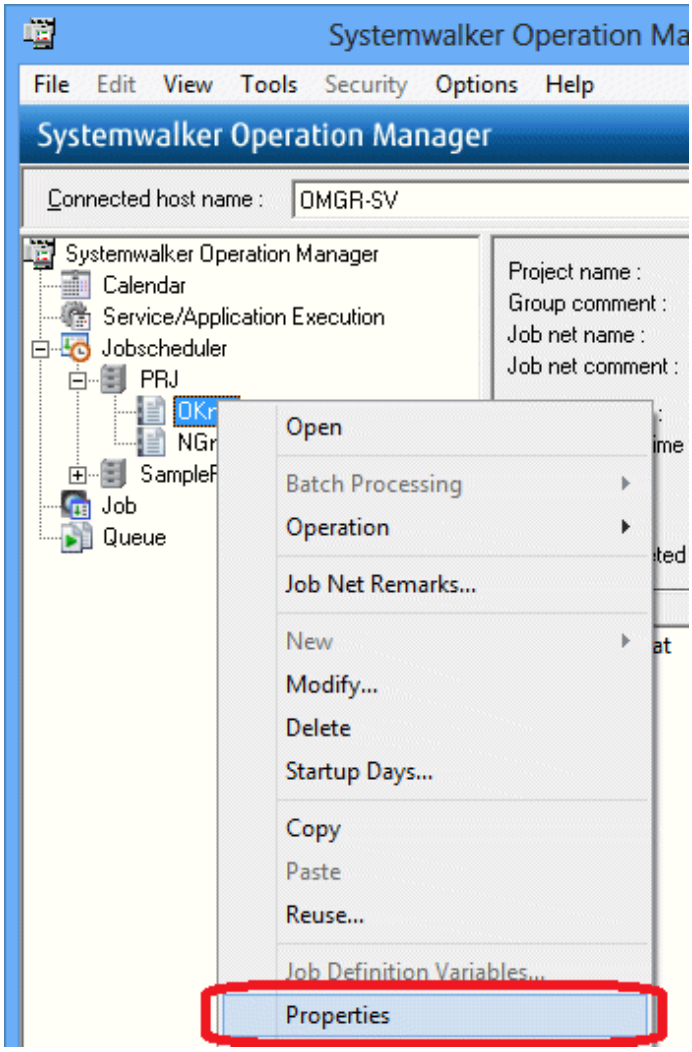
Set the execution time, and then startup days.

### Set the execution time

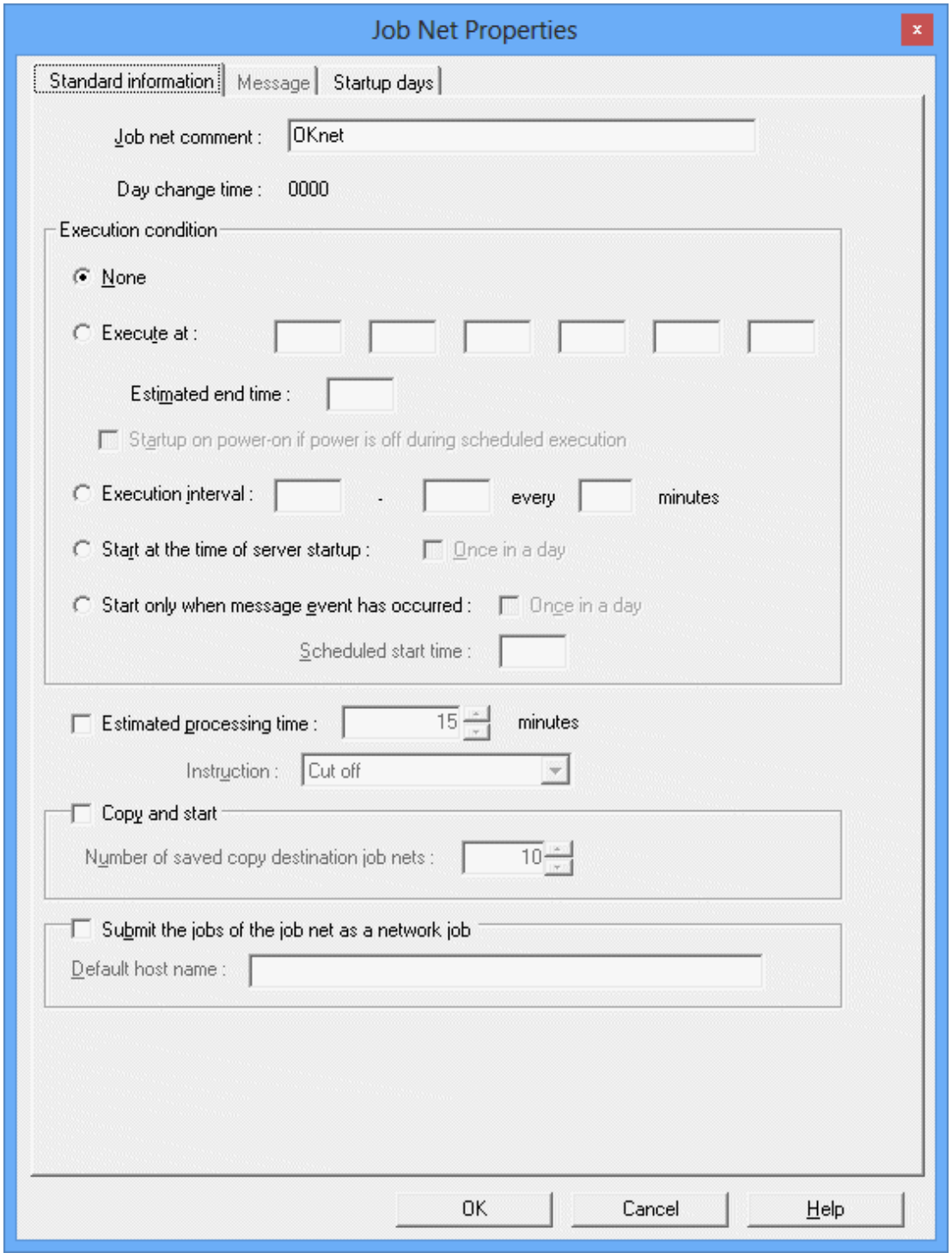
1. To set the properties for "OKnet", display the **Job Selection** window and select the "OKnet" job net.



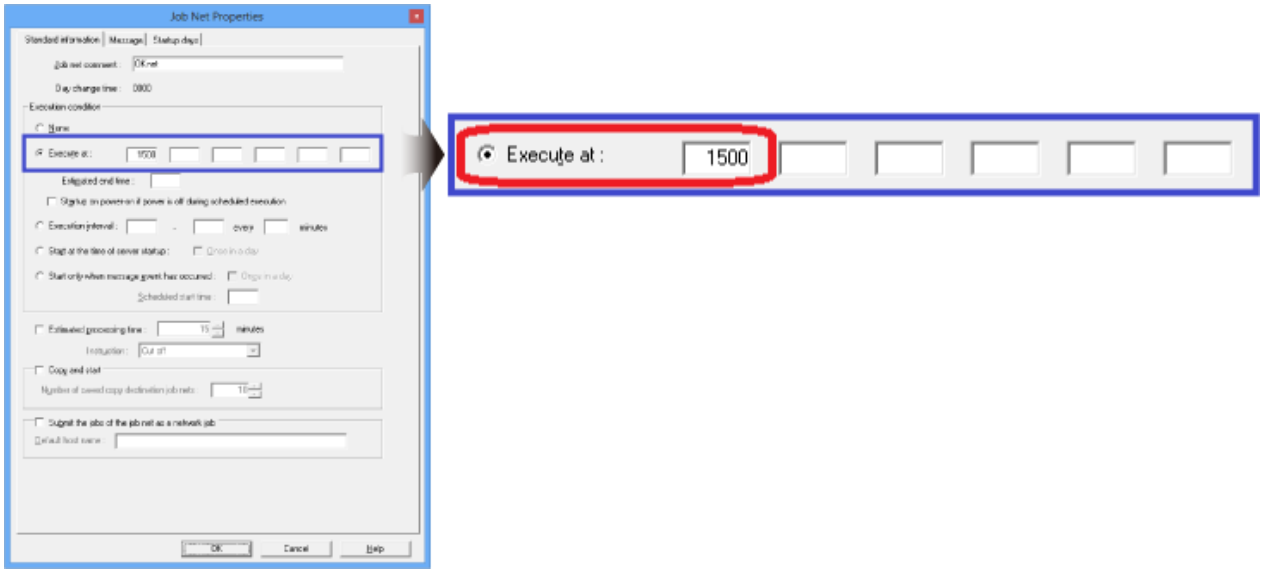
2. Right-click and select **Properties**.



3. The **Standard information** tab of the **Job Net Properties** window is displayed.



4. To set an execution time of "15:00", select **Execute at** under **Execution condition** and enter "1500".

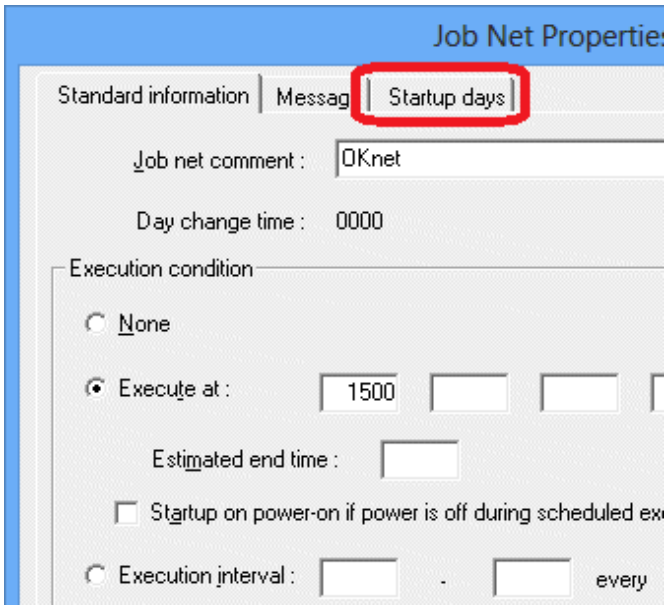



Note: To set "9:00", enter "0900".

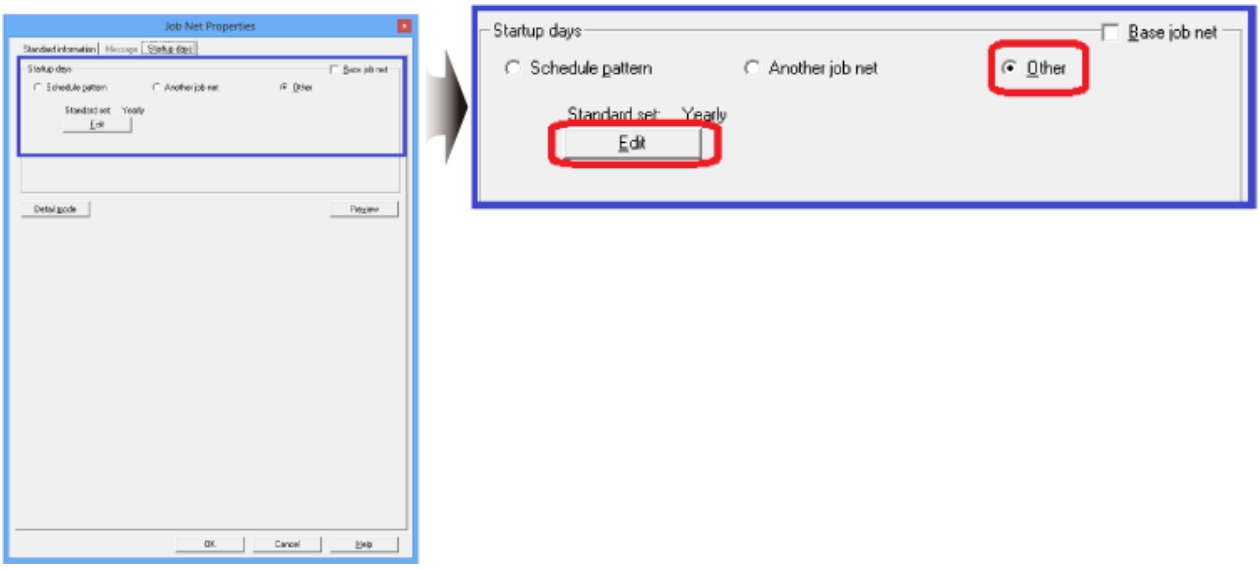
The execution time has now been set.

## Set startup days

1. Select the **Startup days** tab.

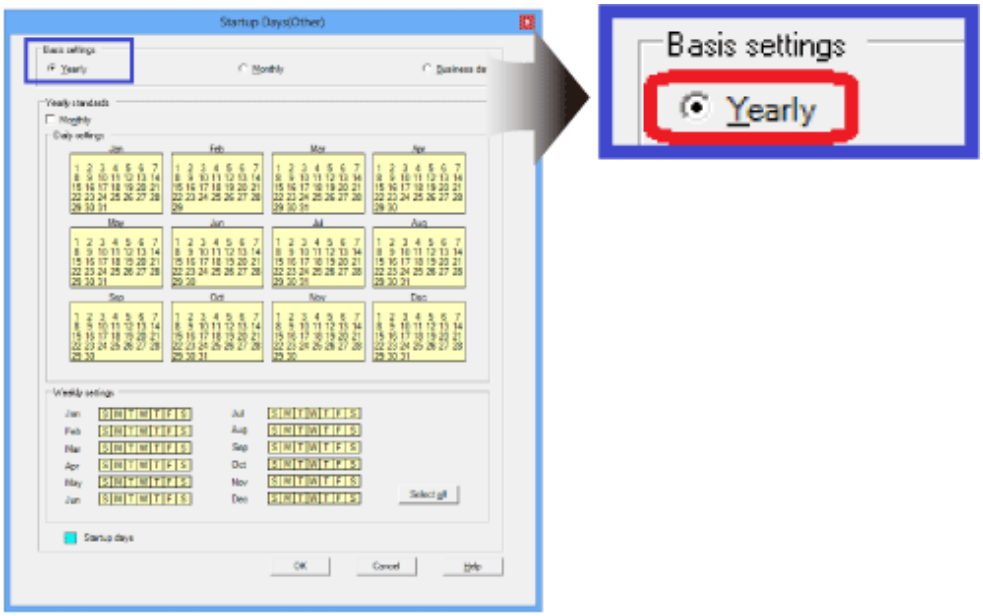


2. To use the calendar displayed in the properties to specify a day of the week, select **Other** under **Startup days** and click **Edit**.

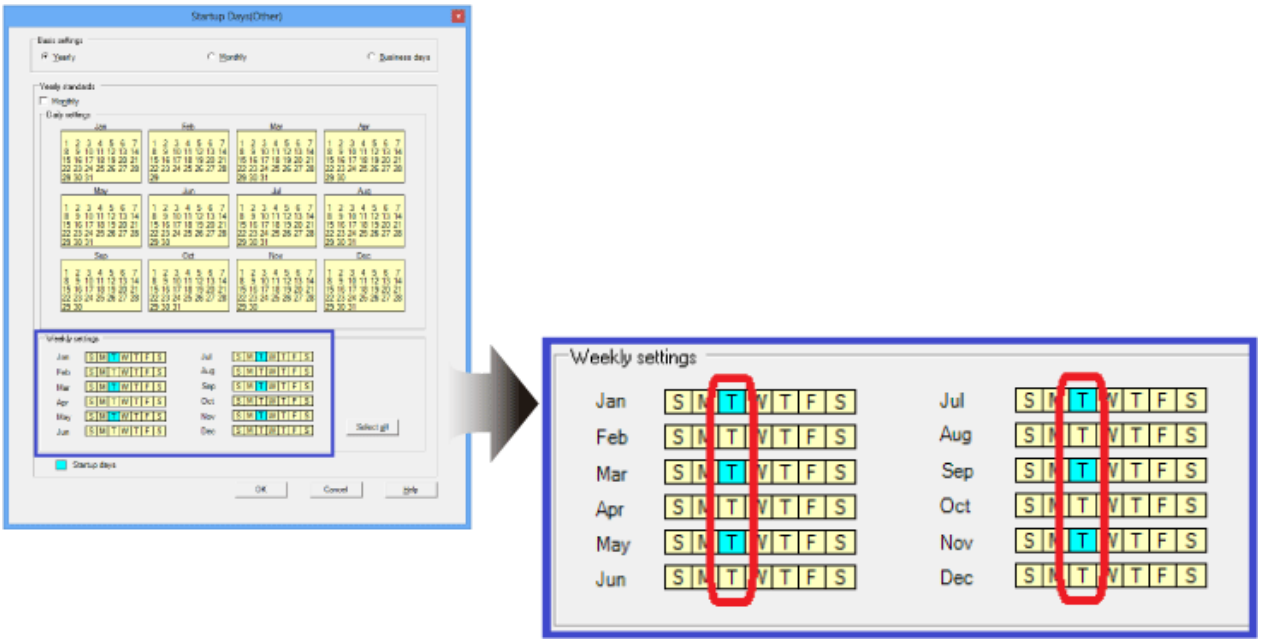



3. The **Startup Days(Other)** window will be displayed.

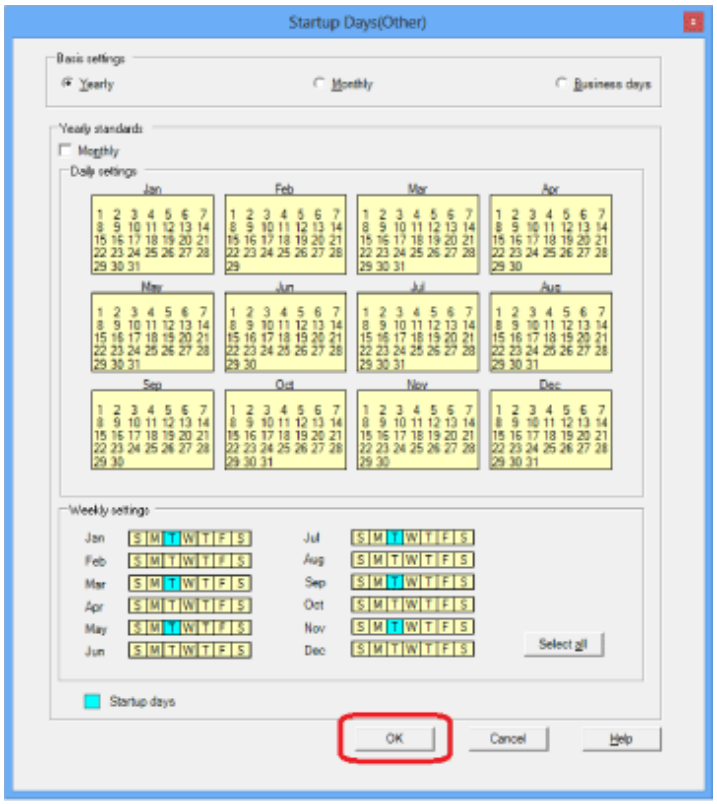
   To set the job net to start every year, select **Yearly** under **Basis Settings**.



4. Under **Weekly Settings**, click Tuesday in each of the odd-numbered months.



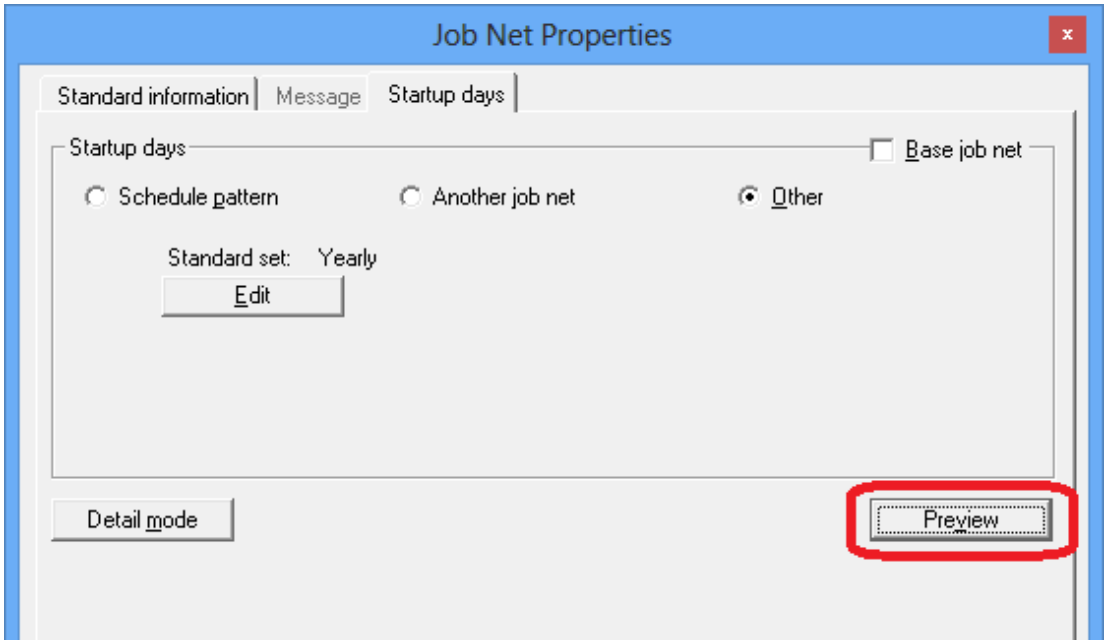

5. Click **OK** to close the **Startup Days(Other)** window.




The startup days have now been set.

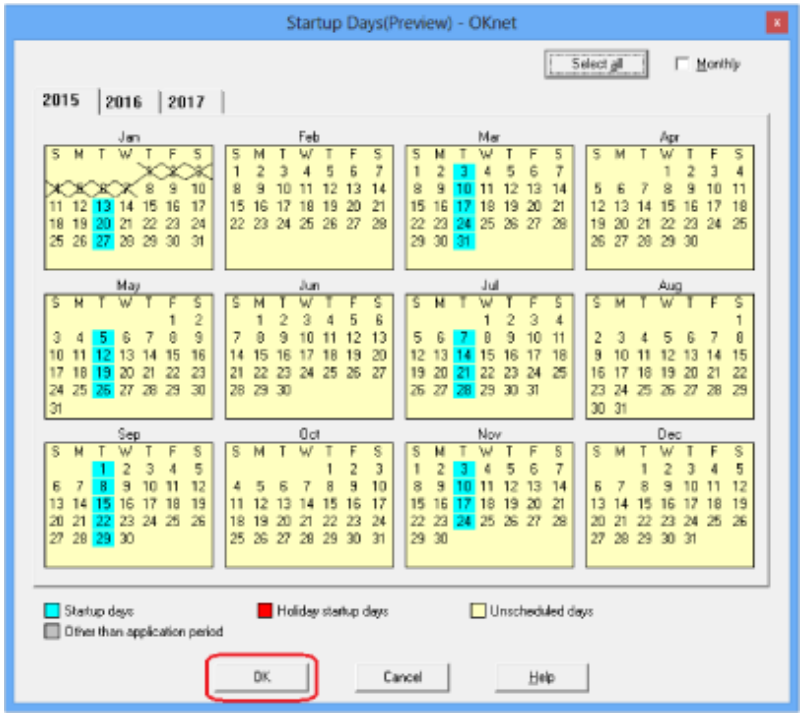
6. The **Job Net Properties** window is displayed again.

   To confirm the startup days you set, click **Preview**.



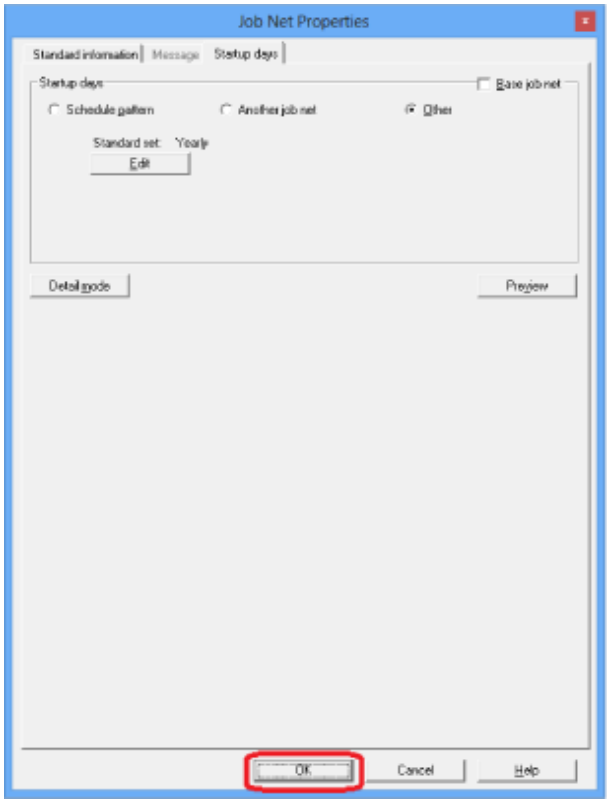

7. The **Startup Days(Preview)** window will be displayed.

   Confirm that Tuesdays of odd-numbered months have been set as startup days, then click **OK** to close the **Startup Days (Preview)** window.

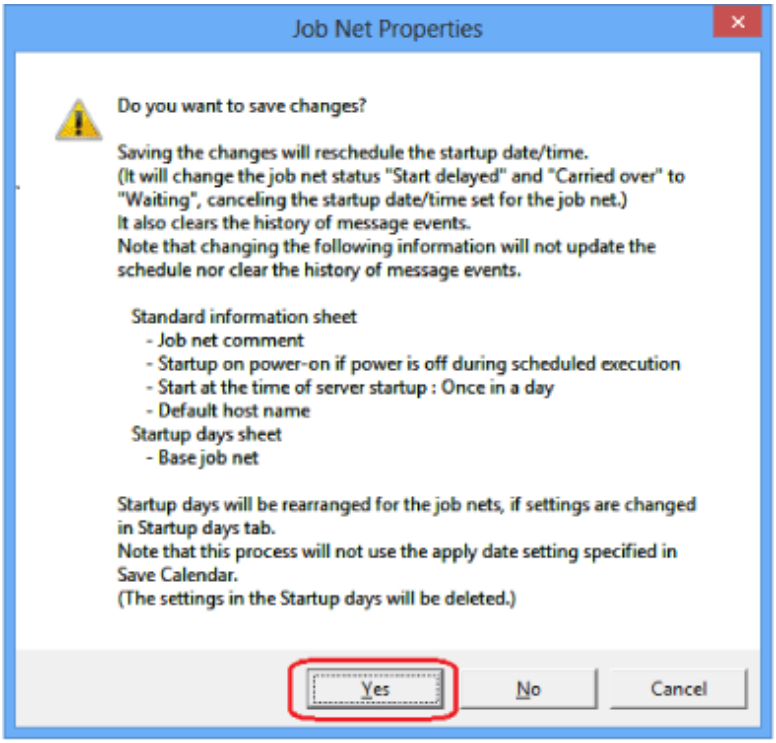


8. The **Job Net Properties** window is displayed again.

   To reflect the set properties in the job net, click **OK**.




9. A confirmation window will be displayed. Click **Yes**.



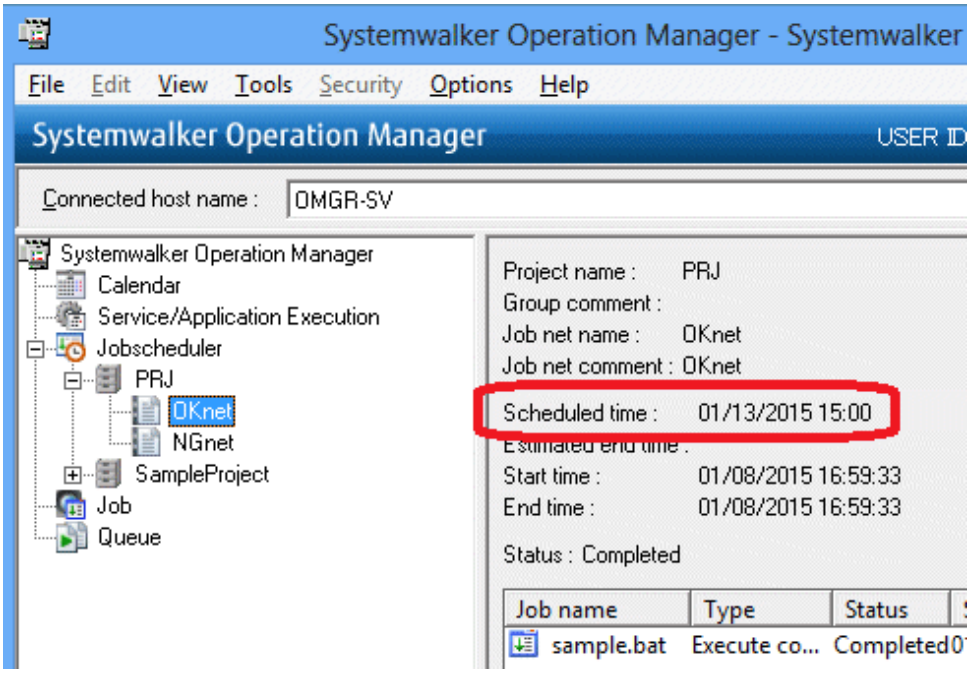

The execution condition has now been set.

## Confirmation of settings

Confirm that the execution condition you set has been reflected in the job net.

To confirm the settings for the "OKnet" job net, display the **Job Selection** window and select the "OKnet" job net.

In the **Job List** window, confirm that 15:00 on Tuesday of the succeeding odd-numbered month has been specified for **Scheduled time**.



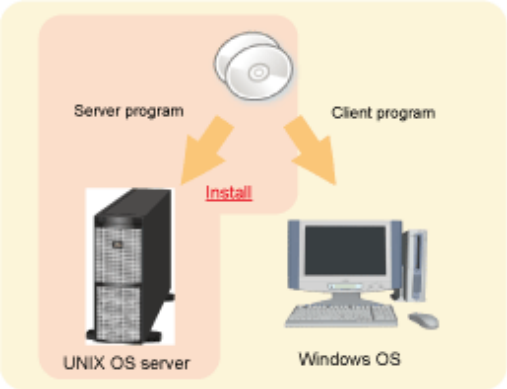
# Appendix A Installation to a UNIX Operating System

This appendix explains installation when you will run Systemwalker Operation Manager on a UNIX operating system.

Install the Systemwalker Operation Manager server to a UNIX operating system. Always install clients to a Windows operating system regardless of the operating system where you install the server. Refer to "Chapter 3 Installation" for information on the procedure for installing clients.

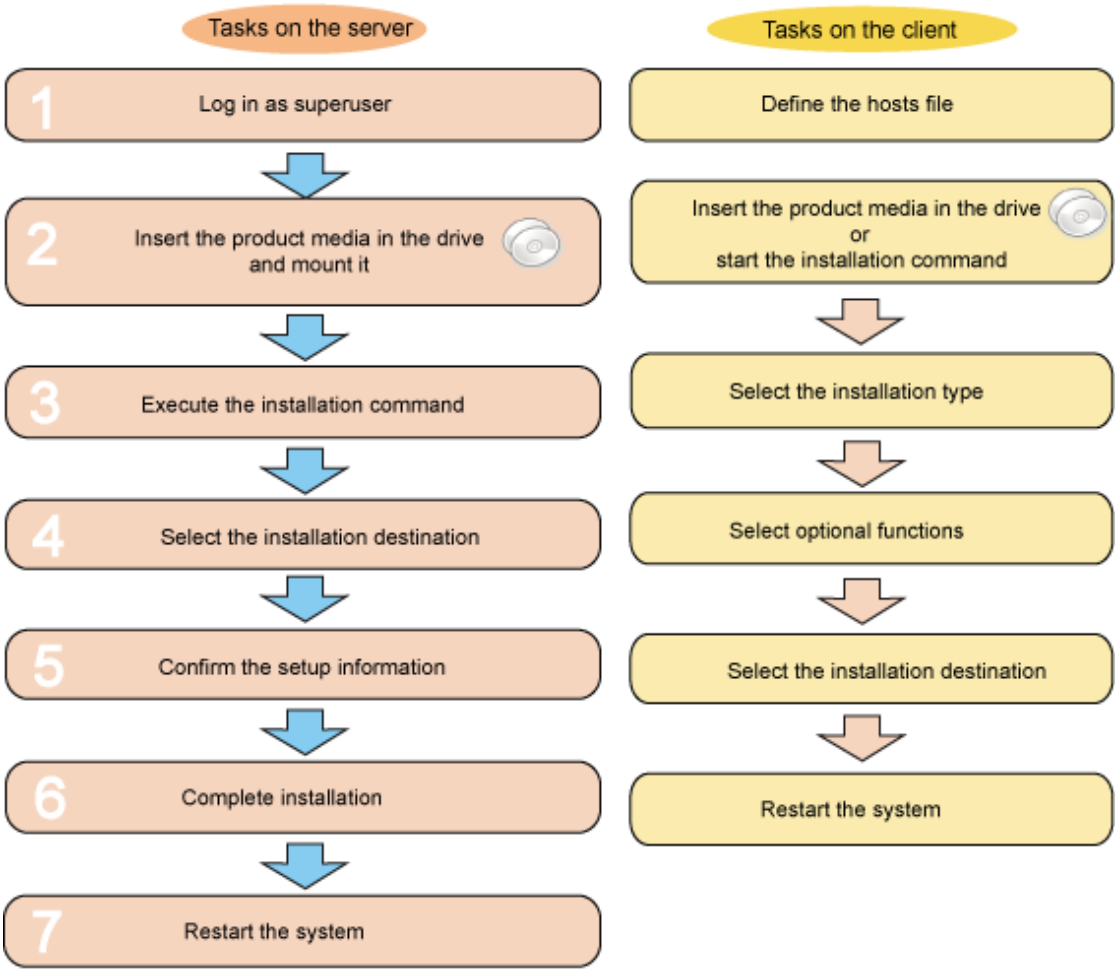
## A.1 Overview of Installation

To use Systemwalker Operation Manager, you must install the server and client.




After you have deterimed which computer you will install the server on, prepare the Systemwalker Operation Manager product media and install it.

The flows for installing the server functions to a UNIX operating system and for installing the client functions are as follows:




# A.2 Installation Procedure

This section explains the tasks required on the server and client during installation.

## A.2.1 Tasks on the Server

This section explains how to install the server functions to a UNIX operating system.

**Procedure**

### 1. Log in as superuser

Log in as superuser on the console of the computer where you will install Systemwalker Operation Manager.

### 2. Insert the Systemwalker Operation Manager product media in the drive and mount it

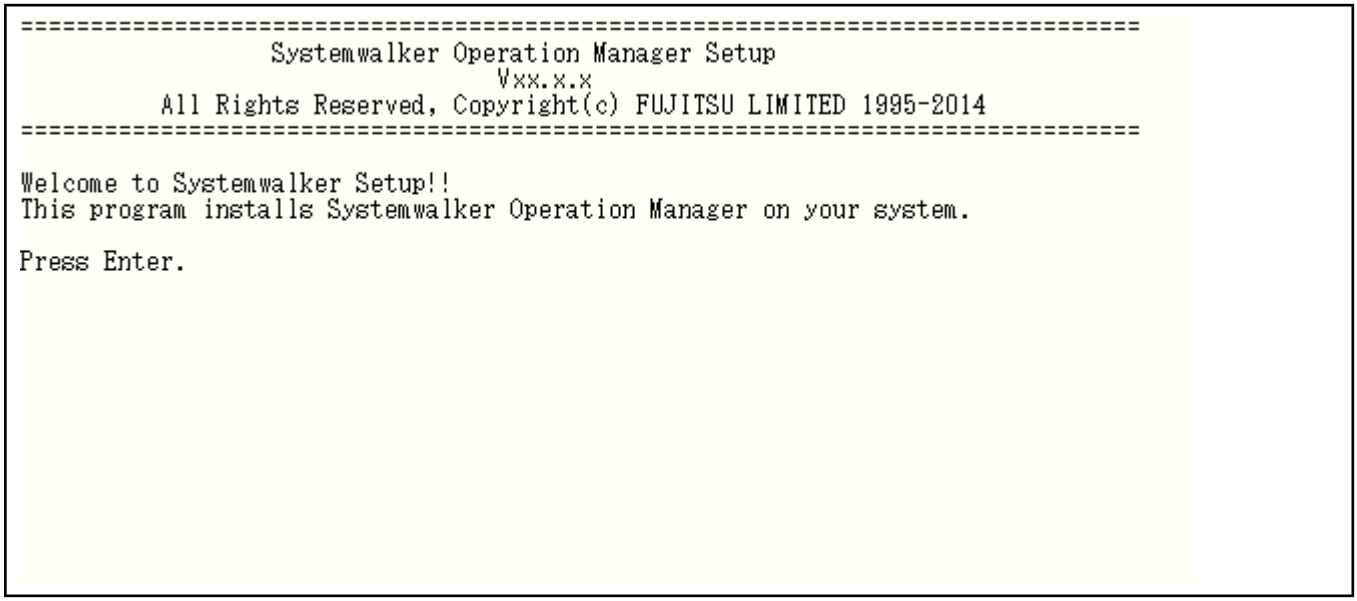
Insert the Systemwalker Operation Manager product media in the drive. If you are not using the volume management daemon, you must mount the drive.

### 3. Execute the installation command

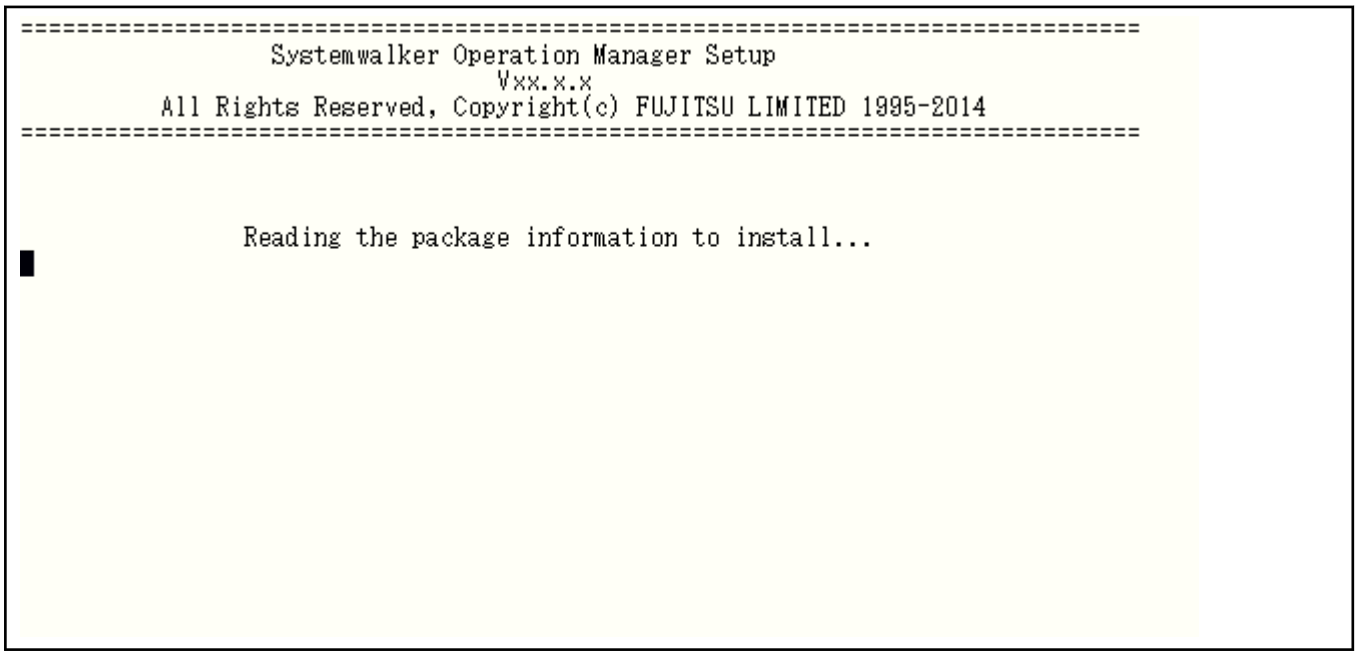
Execute the Systemwalker Operation Manager installation command. An example is shown below.

```
# /<mount point>/Linux/unx/swsetup
```

A window similar to the one below will be displayed.




Press Enter - a window similar to the one below will be displayed.




### 4. Select the installation directory

If installing a Solaris, HP-UX, or AIX version, you can change the installation directory.

To change it, enter "y" and specify the installation directory.

```
================================================================================
                  Systemwalker Operation Manager Setup
                                 Vxx.x.x
          All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995-2014
================================================================================

<< Specify Destination Directory >>

        Program install directory         : /opt
        Fixed configuration directory     : /etc/opt
        Modifying configuration directory : /var/opt

--------------------------------------------------------------------------------
Setup will install this package in the above destination directory.
Press Enter.
```

### 5. Confirm the setup information

A confirmation window similar to the one below will be displayed. If the settings are correct, enter "y".

```
================================================================================
                  Systemwalker Operation Manager Setup
                                 Vxx.x.x
          All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995-2014
================================================================================

<< Verify Installation Information >>

  [Installation Type]
      Server

  [Destination Directory]
      Program install directory         : /opt
      Fixed configuration directory     : /etc/opt
      Modifying configuration directory : /var/opt

  Setup will install the English version of this product
  using the following code.
    - ASCII


Do you want to continue with the installation of this package? [y,n,?] ==>
```

### 6. Complete installation

If installation ends normally, a window similar to the one below will be displayed. Press Enter to end installation.

```
================================================================================
                  Systemwalker Operation Manager Setup
                                Vxx.x.x
          All Rights Reserved, Copyright(c) FUJITSU LIMITED 1995-2014
================================================================================

This product has been installed successfully.
Restart the system before using the program.

Press Enter to terminate setup process.
```

Installation is now complete.

### 7. Restart the system

If using Systemwalker Operation Manager, enter the following commands to restart the system:

```
# cd /
# /usr/sbin/shutdown -y -i6 -g0
```

Note:

The restart command differs depending on the operating system, as shown below:

| | |
|---|---|
| Solaris versions: | /usr/sbin/shutdown -y -i6 -g0 |
| Linux versions: | /sbin/shutdown -r now |
| HP-UX versions: | /usr/sbin/shutdown -y -r now |
| AIX versions: | /usr/sbin/shutdown -r now |

## A.2.2 Tasks on the Client

This section explains the tasks required on the client for monitoring and operating the Systemwalker Operation Manager server installed on a different computer from the client.

To monitor and operate the Systemwalker Operation Manager server on a different computer, you must define the host name and IP address of the server to be connected in the "hosts" file on the client.

Refer to "Chapter 3 Installation" for information on how to install the client functions.

### Define the hosts file

Use an editor such as Notepad to edit the "hosts" file in the <*system root*>\system32\drivers\etc directory on the computer where you installed the client.

Define the host name and IP address of the server in the "hosts" file and ensure that the host name can be resolved.